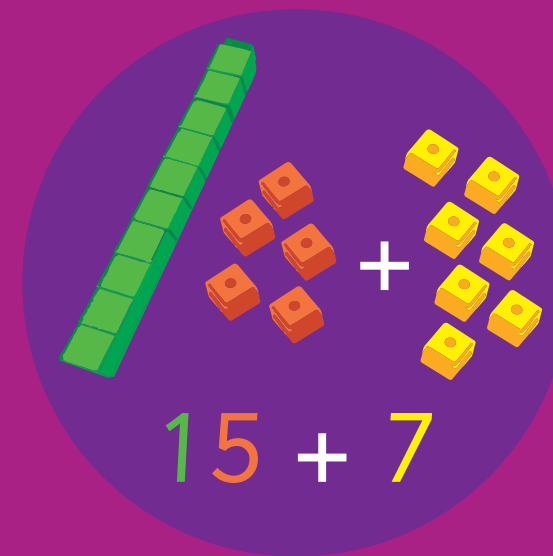


TIJA GAED BLONG
MATEMATIK

Yia 3



MATEMATIKS

Tija Gaed



Yia 3

**Ministri blong Edukesen mo Trening
Ripablik blong Vanuatu
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Ministry of Education and Training - Republic of Vanuatu



Title: Tija Gaed blong Matematiks Yia 3



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Introdaksen

Tija Gaed ia hem i wan gaed we i givhan long yu blong save *wanem* mo *hao* blong tijim blong mekem ol studen oli kasem ol aotkam we oli stap long Yia 3 silibas blong Matematik.

Hem i givim tu ol aedia blong asesmen blong mekem yu save luksave sapos tijing blong yu hem i efektif mo ol studen oli stap lan gud o no.

Gaed ia i blong givhan long yu blong mekem ol lesen plan. Yu save yusum ol aktiviti we oli stap insaed o yu save mekemap ol aktiviti blong yu folem situesen blong yu, be yu mas mekemsua se ol studen oli kasem ol Lening Aotkam. Mo tu yu save yusum Nasional Silibas buk blong divelopem ol lesen mo aktiviti blong yu.

Strakja blong Tija Gaed

Ol Tem: Tija Gaed ia i gat tri Tem.

Ovaviu blong Tem: Wanwan Tem i gat wan Ovaviu we hem i givim wan samari blong wanem nao bae yu tijim mo long oda yu tijim ol defren stran.

Ol Wik: Wanwan Wik i gat ol defren stran we yu mas tijim. Ol stran ia oli gat:

- ◆ Lening Aotkam
- ◆ Ol risos
- ◆ Ol vokabulari
- ◆ Plante aktiviti we yu save mekem
- ◆ Ol kwesten blong asesmen
- ◆ Oportuniti blong Asesmen

Ol aktiviti oli stat long ol isi aktiviti kasem we oli moa had. Sapos ol studen oli no andastanem gud wan aktiviti, yu save givim bakegen semfala aktiviti be yu konsiderem ol nid blong wanwan studen.

Rimemba, hemia hem i wan gaed nomo. Ol aedia blong ol lesen oli sud soem hao nao wan studen i save kasem gud wan Lening Aotkam. Yu save mekemap ol lesen blong yu nomo mo ol asesmen aktiviti blong yu blong givhan long ol studen oli kasem gud ol Lening Aotkam.

Silibas blong Matematik

Long silibas blong Matematik i gat faev stran. Long evri stran ia yu save luksave evri skil mo proses blong Matematik olsem: solvem problem, risoning, mo komyuniketem ol aedia blong matematik.

Yumi yusum Matematik blong solvem problem, mekem risoning, mo komyuniketem ol aedia blong matematik. Hemia nao ol proses mo skil blong Matematik.

Long tebol ia yu save luk ol stran mo ol sab-stran blong Matematik.

Stran	Sab-Stran
Namba	Ful namba
	Operesen
	Fraksen
Mesamen	Longfala, weit mo kapasiti
	Taem
	Mani
Jiometri	Sep mo angel
	Posisen mo spes
Paten	Paten
Janis mo Infomesen	Probabiliti
	Handelem data

Long ol eria blong lan ia i gat sam samting we i klosap semak mekem se oli grup tugeta blong mekem wan sabjek.

Oli sab-stran oli soem ol nolej, skil mo andastanding we oli bildimap long ol defren level blong skul.

Oli Lening Aotkam oli talemaot ol mein pat blong lening insaed long wanwan sab-stran long wanwan level blong skul. Oli stat long hemia we i isi go kasem hemia we i had. Eksampol: long Yia 1 oli isi lelebet, mo Yia 2 i moa had, mo oli go moa antap long wanwan level kasem Yia 6.

Wan tebol we i soem ol Lening Aotkam blong Matematik i stap long en blong introdaksen ia.

Yu save yusum ol Lening Aotkam blong mekemap aktiviti mo lesen plan blong yu. Buk ia i gat ol eksampol nomo blong aktiviti we oli yusum Lening Aotkam blong developem ol aktiviti.

Taemtebol

Folem Vanuatu Nasonal Taemtebol Polisi blong ol Praemeri Skul Yia 1–6 (2013), seven (7) aoa long wan wik hem i blong tijim mo lanem Matematik long Yia 3.

Wanwan skul i save jusum hao blong yusum seven aoa ia; hemia hem i wan eksampol we yu save folem.

- ◆ 5 x 1 aoa mo 15 minit lesen
- ◆ 1 x 30 minit lesen
- ◆ 1 x 15 minit lesen

Mande	Tusde	Wednesde	Tasde	Fraede
1 oa 15 min	1 oa 15 min	1 oa 15 min	1 oa 15 min	1 oa 15 min
15 min			30 min	

Ol faev longfala lesen long wanwan dei oli save stap olsem ol mein taem blong tijing we yu save introdusum ol niufala aedia (konsep) blong Matematik long hem.

Ol step blong planem wan gudfala lening program

Taem yu planem ol lesen, hem i impoten tumas blong yu lukluk gud long ol stran mo sub-stran blong jusum wanem blong yu tijim long wanwan lesen.

Long wanwan sab-stran i gat ol **indiketa** (oli stap long en blong Introdaksen ia). Ol indiketa oli eksampol blong ol samting we ol studen oli mekem blong soem se oli kasem gud, save gud mo andastanem gud ol aotkam.

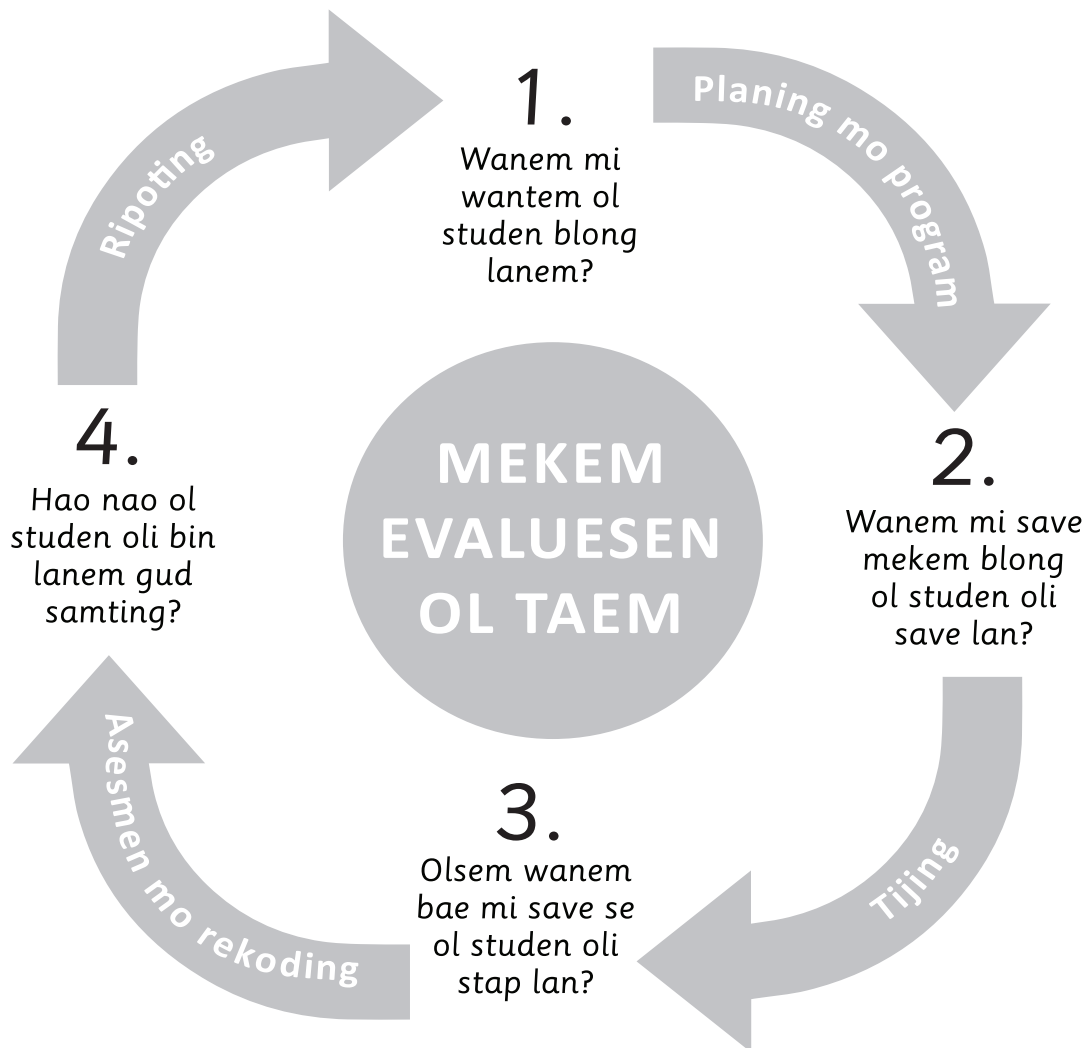
Wanwan indiketa i no kavremap ful konten blong wan aotkam. Oli ol eksampol nomo mo yu save wokem sam moa indiketa we yu ting se hem i stret gud long level blong yia we yu stap tij long hem. Hemia i blong helpem yu save mesarem wan pat blong aotkam.

Step 1: Wanem mi wantem ol studen blong lanem?

Lukluk long ovaviu blong givhan long yu long wanem stret yu wantem ol studen oli lanem long tem ia.

Luklukgud long ol Lening Aotkam we yumi wantem kasem mo ol indiketa blong olgeta.

Ol indiketa ia nao bae oli givhan long yu blong save gud wanem nao ol studen oli mas save mo save mekem blong kasem ol aotkam.



Jat ia i soem ol step blong folem taem yu wantem mekem wan tijing mo lening plan blong yu.

Step 2: Wanem mi save mekem blong ol student oli save lan?

Stadi gud long ol aktiviti we oli raetem long wanwan wik. Yusum ol aedia ia blong givhan long ol studen oli kasem aotkam. Long level blong skul long Yia 1–3, yu sud tingbaot ol samting ia taem yu stap jusum hao nao yu save tijing ol studen.

- ◆ Tijing i mas muv lelebet long pleplei insaed long klasrum i go kasem aktiviti we i moa fomal wetem strakja.
- ◆ Hem i impotan tumas blong i gat lening we i aktif mo i holem ful atensen blong ol studen.
- ◆ Yusum tijing we i klia gud blong tijing ol studen blong rid, raet, spel mo givhan blong leftemap ol save blong ol vokabulari.

- ◆ Yu givim ol studen plante opotuniti blong solvem ol problem, olsem yu stap askem ol simpel kwesten mo ol studen oli mas faenemaot ol ansa.
- ◆ Bildimap ol skil blong wok tugeta long ol studen tru long ol pleplei, storian (diskasen) mo oli stap solvem ol problem.
- ◆ Givim plante janis long ol studen blong lanem long eksperiens we oli save long olgeta, olsem tok wetem ol memba blong komyuniti blong olgeta o yusum materiel we oli yusum oltaem blong mekem lening aktiviti.

Step 3: Olsem wanem bae mi save se ol studen oli stap lan?

Asesmen hem i wan proses we i hapen olwe nomo long taem blong tijing mo lening insaed mo aotsaed long klasrum. Hem i wan proses we i givhan long yu blong yu save faenemaot, putum tugeta mo givhan long ol narafala pipol blong save gud ol infomesen blong hamas nao studen i kasem folem ol Lening Aotkam.

Yu sud givim plante janis long ol studen long wan longfala period blong taem blong soem save blong olgeta long yu o hamas oli mekem folem ol asesmen we i stret long wan aotkam.

Stamba tingting blong ol asesmen long wan lesen hem i blong helpem lening blong ol studen. Ol kaen asesmen olsem ia yumi kolek *Fomativ Asesmen o Asesmen blong Lan*.

I gat infomol asesmen we i stap hapen olwe nomo long klas, mo yu save kasem fidbak kwik taem nomo.

Eksampol: taem yu stap obsevem ol studen oli stap mekem wan eksesaes. Yu faenemaot wijwan studen i gat problem blong aktiviti ia. Afta yu givhan long hem stret long taem ia blong i kasem wanem we yu wantem hem i mekem. Hemia hem i *Asesmen blong Lan*.

I gat ol aedia blong aesesmen oli stap insaed long Tija Gaed ia. Yu save yusum ol aedia ia o yu save developem samfala blong yu blong yusum.

Step 4: Hao nao ol studen oli bin lanem gud samting?

Yu mas yusum ol evidens we yu bin rikodem blong mekem jajmen long hamas samting nao ol studen blong yu oli bin lanem o kasem gud.

Hem i impoten blong rikodem gud ol evidens we i soem se ol studen oli stap lan gud. Yu save yusum ol infomesen ia blong givhan long yu blong mekem wan jajmen long pefomens blong wanwan studen long wan tem mo yia.

Literasi blong Lanwis mo Matematik

Folem wanem we i stap long Vanuatu Nasonal Lanwis Polisi (2012) mo tu long Silibas blong Matematik, lanwis blong instraksen blong tijim Matematik long klasrum hem i venakula o lanwis blong ples. Bislama tu i wan venakula from hem i fasfala lanwis blong plante studen.

Samtaem bae yu faenem samfala wod o tem blong Matematik we i nogat wod long venakula we yu stap tijim long hem. Yu save introdusum wod ia long ol studen long Inglis/Franis be yu kontinu blong eksplenem ol konsep long venakula o lanswis blong ples we yu stap.

Eksampol:

“Hemia wan “triangle” (Inglis/Franis) o “traeangel” (Bislama), hem i wan sep we i gat trifala saed mo trifala kona.”

Taem yu stap mekem plan blong program blong yu, bae yu nidim blong tingbaot oltaem hao nao bae yu save givhan long literasi blong Matematik blong ol studen blong yu.

Yu mas tijim ol studen blong oli save ol toktok, ol tem mo ol simbol blong Matematik. Mo tu yu mas givim ol studen plante janis blong oli tokbaot wanem oli stap lanem long lesen blong olgeta.

Mekemsua se ol studen oli:

- ◆ tokbaot ol konsep blong Matematik we yu stap introdusum long olgeta;
- ◆ askem mo ansarem plante kwesten about wanem we oli stap lanem;
- ◆ save raetemdaon wanem we oli stap lanem.

Tija Gaed ia i gat vokabulari blong wanwan sub-stran we oli stap long wanwan wik. Mekemsua ol studen oli kasem gud ol mining blong ol wod ia. Blong mekem hem, yu save yusum ol wod fastaem mo enkarejem ol studen blong yusum ol wod ia blong tokbaot lening blong olgeta. Taem ol studen oli andastanem gud konsep mo vokabulari, bae yu save introdusum simbol blong olgeta.

Eksampol:

Taem ol studen oli andastanem konsep blong plas o ademap mo lanwis “3 mo 4 i mekem 7”, afta yu save introdusum ol simbol ia + mo =.

Wanem hem i Inklusen o Inklusiv Edukesen?

Inklusiv Edukesen i minim se edukesen we evri boe mo gel oli lan tugeta long wan klasrum inkludum ol studen we oli gat disabiliti o spesel nid.

Inklusiv Edukesen i mekemsua se ol studen wetem disabiliti o spesel nid oli save go long skul long ol lokol eria blong olgeta mo ol tija oli mas welkamem mo inkludum olgeta long evri aktiviti blong skul, olsem ol narafala studen we oli nogat disabiliti o spesel nid.

I wan edukesen we i inkludum **EVRIWAN** – nomata long defrens long jenda, abiliti o disabiliti, relijen, kalja, bilif, posisen long sosaeti o bakgraon.

Studen hem i gat wan spesel nid taem hem i gat wan o sam long-tem problem long saed blong muvmuv, lukluk, harem samting, bihev, mo fasen blong lan (rid, mekem matematik, solvem problem o andastanem tija blong hem).

Nating we oli studen oli gat ol disabiliti ia, oli save lan yet. Yumi mas wok wetem olgeta mo ol perens/kea teka/gadien blong faenem stret fasen we oli save lan long hem. Hem i impoten blong oltaem fokus long wanem studen i save mekem be i no long wanem we hem i no save mekem.

Yumi ol tija i mas tingbaot Inklusiv Edukesen o ol studen wetem ol spesel nid long ol skul or klasrum blong yumi. Insaed long *Yia 1 Tija Gaed blong Lanwis mo Komyunikesen* i gat moa toktok long Inklusiv Edukesen long saed blong ol polisi, ol defren kaen spesel nid, mo sam strateji we yu save yusum insaed long klasrum mo ol skul blong yumi blong mekemsua se evri studen i save tekpat long ol aktiviti mo lan tugeta.

Yumi evriwan i mas wok tugeta blong mekemsua se ol studen we oli gat spesel nid oli filim sef mo glad blong lan gud insaed long wanwan skul blong yumi long Vanuatu from olgeta oli save kam ol gudfala risosful pipol long ol komyuniti, sosaeti mo kaontri blong yumi.

Oi Lening Aotkam mo Indiketa



Stran: Namba

Sab-stran	Ful Namba			
Yia Level	Bigining Yia 1	Yia 1	Yia 2	Yia 3
Lening Aotkam	NWN.B.V1 Kaontem ol ting yusum namba sistem long venakula	NWN.1.V1 Kaontem, raetem namba long figa, komposem, komperem mo putum ol namba kasem 19 long oda, yusum ol objek	NWN.2.V1 Ridim, raetem, ripisentem mo putum ol ful namba kasem 99 long oda, yusum ol defren materiel	NWN.3.V1 Ridim, raetem, ripisentem mo putum ol ful namba kasem 999 long oda, yusum ol defren materiel
Ol Indiketa	Studen i soem se i kasem aotkam taem hem i wokem olgeta samting olsem:			
	<ul style="list-style-type: none"> kaontem ol komon objek long stret oda tokbaot hao nao oli yusum namba long laef blong olgeta yusum oda namba (odinol) fasin blong kaontem olsem fas, seken, nambatri, nambafo aedentifaem hao blong putum long grup ol defren objek long komyuniti majem ol namba wod i go wetem stret namba blong ol objek tokbaot sam simbol, ol pija o ol objek we oli save yusum blong talem stret ol namba majem ol stret figa i go wetem ol objek. 	<ul style="list-style-type: none"> kaontem ol objek long grup long fulap defren wei olsem long tu, faev, mo ten aedentifaem hao nao ol objek oli stap long grup long komyuniti sotemaot ol objek i go long ol grup folem ol propeti blong olgeta kaontem ol objek long tu-dijit namba yusum venakula we i save kasem 20 komperem mo putum long oda ol namba yusum ol vokabulari ia, (tufala i semak, i bigwan bitim, i smol lelebet) Save talem mo save raetem ol namba long figa kasem 19 long venakula. 	<ul style="list-style-type: none"> kaontem ol objek yusum lokol mo standed namba sistem yusum ol venakula wod blong talem ol namba simbol mo ol saen blong operesen ridim mo raetem ol tu-dijit namba long figa mo wod aedentifaem ol od namba mo ol iven namba aninit long 99 putum ol tu-dijit namba long oda mo putum olgeta long wan namba laen putum long oda mo komperem ol namba yusum ol saen ia: i semak =, i bigfala bitim <, i smol lelebet > kaontem ol objek yusum Franis o Inglis. 	<ul style="list-style-type: none"> yusum wetem gud andastanding wan tebol blong numeresen (ol Yunit, ol Ten, ol Handred) ridim mo raetem ol namba long 999 long figa mo wod aedentifaem ol Yunit, ol Ten mo ol Handred long ples valiu komperem mo putum ol namba kasem 999 long oda kaontem ol namba i go long fored mo kam bak bihaen stat long ol defren poen yusum gud ful namba (kadinol) mo oda namba (odinol) estimetem wan namba o wan risal (raondemap ol namba kasem Ten we i klosap, handred we i klosap o Taosen we i klosap).

Sab-stran	Operesen			
Yia Level	Bigining Yia 1	Yia 1	Yia 2	Yia 3
Lening Aotkam	<p>NO.B.V1</p> <p>Eksplorem mo putum tugeta, tekemaot, mekem ol grup mo serem, yusum ol konkrit materiel.</p>	<p>NO.1.V1</p> <p>Solvem ol problem we oli involvem ademap mo tekemaot blong ol wan dijit namba, yusum ol konkrit materiel.</p>	<p>NO.2.V1</p> <p>Solvem ol problem we oli involvem ademap mo tekemaot blong ol wan dijit namba mo tu-dijit ful namba, yusum ol defren wei.</p>	<p>NO.3.V1</p> <p>Solvem ol problem we i involvem ademap, tekemaot, mo multiplikesen yusum ol defren wei.</p>
OI Indiketa	Studen i soem se i kasem aotkam taem hem i wokem olgeta samting olsem:			
	<ul style="list-style-type: none"> • putum ol objek tugeta long grup • ademap moa objek i go long wan grup blong ol objek • tekemaot sam objek long wan grup folem ol instraksen • oli save tokbaot wanem we oli bin mekem taem we oli ademap o tekemaot sam objek long wan grup • oli serem wan grup blong ol objek. 	<ul style="list-style-type: none"> • yusum ol konkrit materiel blong wokemaot total namba blong ol samting • prisentem wan problem yusum ol konkrit materiel • wokemaot ol ademap mo tekemaot problem yusum ol konkrit materiel • jenisim ol laef situesen we oli hapen evridei i go long ol operesen blong ademap o tekemaot • andastanem gud mining blong ikwel saen (=) mo talem sapos stetmen i tru o no tru • faenemaot ansa blong wan problem mo soem risal blong hem. 	<ul style="list-style-type: none"> • andastadem gud mining blong ikwel saen (=) mo talem se wan stetmen i tru o no tru • putum mo raetem ol namba long ol Yunit mo ol Ten yusum namba sentens mo ol ples valiu materiel • mekem ol isi namba sentens long ol numeral wod long venakula, Inglis o Franis • yusum ol konkrit materiel blong konstraktem o mekem ol namba sentens • talem mo yusum ol nem blong namba long stret oda • wokemaot ol tekemaot mo ademap problem long evridei laef • faenem ansa blong wan problem we i involvem operesen. 	<ul style="list-style-type: none"> • ademap mo tekemaot tu- mo tri-dijit namba • komplitim ol open namba sentens • yusum ol ademap mo tebol blong tekemaot • mekem estimatesen taem we i stap traem blong solvem ol ademap mo tekemaot problem • traem yusum ol defren wei blong solvem ol problem (ademap wetem karem mo tekemaot wetem boro) • yusum ol lanwis blong Matematik olsem plas, tekemaot, ikwel mo ademap • investigetem multiplikesen mo divisien.

Sab-stran	Fraksen			
Yia Level	Bigining Yia 1	Yia 1	Yia 2	Yia 3
Lening Aotkam	NF.B.V1 Luksave wan objek o samfala objek we yumi save brekendaon	NF.1.V1 Brekem ol defren objek i go long ol smol pis mo putum bak olgeta blong mekem wan fulwan	NF.2.V1 Luksave ol defren wei blong mekem wan ful objek mo ol defren pat we i mekem wan ful objek	NF.3.V1 Divaedem wan hip blong ol objek i go long ol smol hip we oli semak
Ol Indiketa	Studen i soem se i kasem aotkam taem hem i wokem olgeta samting olsem:			
	<ul style="list-style-type: none"> serem wan hip blong ol objek i go long ol smolmol hip blong ol fren katkatem ol frut mo kek i go long ol smolmol pis we oli semak. 	<ul style="list-style-type: none"> putum ol objek long ol grup we i folem wan komon propeti divaedem wan hip blong objek i go long ol smolmol hip folem komon propeti blong olgeta serem wan hip blong ol objek folem 'fea sering' inspektem ol defren pat blong wan objek mo putum tugeta blong mekem wan ful wan. 	<ul style="list-style-type: none"> serem ol kwata o ol haf blong solvem wan problem serem kwata o haf blong wan objek serem ol objek blong mekem se wan i risivim wan ful wan mo wan haf aedentifaem kwata blong wan objek mo haf blong wan objek mo save nemem olgeta. 	<ul style="list-style-type: none"> divaedem wan hip blong ol objek i go long haf, kwata, tripis, mo eitpis yusum vokabulari ia: dabol mo haf, wetem ol namba we yumi yusum evridei aedentifaem kwata blong wan aoa mo haf blong wan aoa yusum wan model klok solvem wan problem we oli serem ol objek semak.

Stran: Mesamen

Sab-stran	Longfala, Hevi (Weit) mo Kapasiti			
Yia Level	Bigining Yia 1	Yia 1	Yia 2	Yia 3
Lening Aotkam	<p>MLWC.B.V1</p> <p>Mesarem longfala blong ol ting, hevi blong ol ting mo hamas nao wan kontena i save holem (kapasiti) yusum ol lokol fasin blong mesarem samting.</p>	<p>MLWC.1.V1</p> <p>Mesarem mo komperem longfala, hevi mo kapasiti blong ol ting yusum ol non standed metod.</p>	<p>MLWC.2.V1</p> <p>Estimetem o ges, mesarem, komperem mo diskasem hevi mo kapasiti blong ol ting yusum ol non-standed mo standed metod.</p>	<p>MLWC.3.V1</p> <p>Estimetem, mesarem, komperem mo diskasem hevi mo kapasiti blong ol ting yusum ol standed metod.</p>
Ol Indiketa	<p>Studen i soem se i kasem aotkam taem hem i wokem olgeta samting olsem:</p>			
	<ul style="list-style-type: none"> majem longfala mo hevi blong ol ting yusum ol metod blong olgeta nomo mesarem longfala, hevi mo kapasiti (hamas wan kontena i save holem) blong ol ting yusum ol lokol risos kolektem ol defren aetem mo oganaesem olgeta long saes, longfala mo hevi blong olgeta yusum ol wod blong venakula blong diskraebem longfala, hevi mo kapasiti blong ol ting yusum ol wod blong venakula we oli diskraebem ol kwaliti, olsem fulap/emti, hevi/no hevi (laet), longfala/sotfala, tolfala/sotfala, bigfala/smolofala. 	<ul style="list-style-type: none"> mesarem mo komperem longfala blong ol samting olsem hanspan, longfala blong han, ol stik o ol narafala samting moa yusum ol wod blong komperem ol mesamen mesarem mo komperem kapasiti blong ol defren kontena mo ol narafala lokol aetem mesarem mo komperem hevi blong ol lokol objek. 	<ul style="list-style-type: none"> tokbaot mo yusum ol tradisonal metod blong mesarem ol samting long lokol komyuniti yusum ol standed mo non-standed yunit blong mesarem longfala, weit mo kapasiti blong ol ting diskasem ol defren wei blong mesarem longfala, weit mo kapasiti mesarem longfala, weit mo kapasiti blong ol objek long ol defren wei mo komperem ol metod ia blong faenemaot se i stret o i no stret yusum ol venakula mo semak Inglis o Franis wod blong komperem ol mesamen. 	<ul style="list-style-type: none"> yusum ol stret simbol blong ol standed yunit blong longfala sentimita (cm), mita (m), gram (g) mo kilogram(kg) mesarem mo rikodem ol longfala blong ol objek wetem 30cm rula mo 1m rula o wan tepmesa komperem mo rikodem hevi blong ol objek yusum wan balens skel estimetem, mesarem mo komperem kapasiti blong ol defren kontena mo givim mesamen long mililita (mm) mo lita (l) komperem mo putum long wan oda ol objek, folem mesamen blong olgeta long sentimita (cm), mita (m), gram (g) mo kilogram(kg).

Sab-stran	Taem			
Yia Level	Bigining Yia 1	Yia 1	Yia 2	Yia 3
Lening Aotkam	<p>MT.B.V1</p> <p>Diskraebem mo pridiktim ol aktiviti (rutin) we i tekples evridei yusum ol lokol maka blong taem.</p>	<p>MT.1.V1</p> <p>Talem taem long ol tradisonal wei mo estimetem period blong ol aktiviti mo ivent.</p>	<p>MT.2.V1</p> <p>Aedentifaem mo putum ol ivent long wan sikwens o oda we oli hapen long ol defren taem blong dei, wik mo yia.</p>	<p>MT.3.V1</p> <p>Luksave mo andastandem ol yunit blong taem yusum wan kalenda mo 12 aoa klok (analog).</p>
Ol Indiketa	Studen i soem se i kasem aotkam taem hem i wokem olgeta samting olsem:			
	<ul style="list-style-type: none"> nemem ol pat blong dei long venakula yusum ol tradisonal wei blong mesarem taem aedentifaem mo tokbaot sam anuel ivent mo selebresen we i tekples wan taem long wan yia olsem ol taem blong havest, Ista, Indipendens Dei, Krismas Dei, ol lokol tradisonal seremoni aedentifaem ol dei blong wik yusum ol maka blong taem olsem yestedei, tedei, tumoro, eli moning, moning, medel dei, aftanun, ivning, naet, medel naet. 	<ul style="list-style-type: none"> aedentifaem mo putum ol manis blong wan yia long stret oda nemem mo mekem wan list blong ol defren dei long wik mo manis blong yia mekem list blong ol impoten ivent long yia olsem ol lafet mo ol selebresen talem mo yusum taem long wan tradisonal wei diskasem mo yusum wan tradisonal kalenda talem ol ful aoa long wan 12 aoa klok yusum wan klok fes. 	<ul style="list-style-type: none"> aedentifaem mo putum long oda ol defren ivent we i hapen long wan dei yusum wan standed kalenda blong aedentifaem ol impoten ivent long ol manis, wik mo dei mekem list blong ol sisen mo ol komon aktiviti blong wanwan long olgeta estimetem taem yusum non-standed yunit aedentifaem ol defren taem blong spel long wan dei yusum wan standed kalenda blong aedentifaem ol defren impoten ivent talem ol haf pas blong wanwan aoa long klok, olsem haf pas 7, haf pas 11, haf pas 1, haf pas 4. 	<ul style="list-style-type: none"> luksave wok blong aoa han long wan 12 aoa klok fes luksave aoa, haf aoa, mo kwata aoa (12, 3, 6, 9) long wan 12 aoa klok fes talem taem yusum wan 12 aoa klok fes (aoa mo haf aoa) yusum ol yunit blong taem olsem minit mo aoa mo andastandem rilesensip blong olgeta mekem wan link long ol taem blong dei wetem ol aktiviti olsem taemtebol blong skul mekem ol link bitwin ol dei, ol wik, ol manis mo wan yia putum ol deit long ol ivent i go insaed long wan kalenda.

Sab-stran	Mani			
Yia Level	Bigining Yia 1	Yia 1	Yia 2	Yia 3
Lening Aotkam	<p>MM.B.V1</p> <p>Aedentifaem mo mekem rolplei long ol tradisonal fasin blong eksjenis.</p>	<p>MM.1.V1</p> <p>Aedentifaem mo diskraebem olgeta smol mani ia: 5 vatu, 10 vatu, 20 vatu, 50 vatu mo 100 vatu, mo yusum olgeta blong pem ol ting.</p>	<p>MM.2.V1</p> <p>Yusum ol smol mani blong solvem ol simpol problem mo semtaem luksave ol pepa mani (200 vatu, 500 vatu, 1000 vatu).</p>	<p>MM.3.V1</p> <p>Yusum ol koen o smol mani mo ol pepa mani blong solvem ol isi problem.</p>
Ol Indiketa	Studen i soem se i kasem aotkam taem hem i wokem olgeta samting olsem:			
	<ul style="list-style-type: none"> • tokbaot ol tradisonal fasin blong eksjenisim ol samting wetem ol narafala memba blong komyuniti • tokbaot ol fasin blong eksjenisim samting we oli mekem wetem ol fren blong olgeta evridei • mekem wan estimatesen long valiu blong ol ting we oli eksjenisim • eksjenisim ol ting long wan rolplei (ol frut, ol kakae blong garen, basket, mat). 	<ul style="list-style-type: none"> • luksave ol namba we oli stap long ol koen o smol mani • putum ol defren koen o smol mani i go long grup mo putum nem long olgeta • diskraebem o tokbaot ol defren koen o smol mani • putum ol smol mani blong mekem wan amaon we oli askem. 	<ul style="list-style-type: none"> • wokemaot valiu blong wan hip blong ol smol mani • wokemaot praes blong ol ting we oli wantem pem • yusum ol amaon blong mani long taem blong pleplei stoa o pleplei maket • givim stret jenis blong man long taem blong pleplei stoa. 	<ul style="list-style-type: none"> • ansa mo askem ol kwesten abaot ol koen o smol mani mo ol pepa mani we yumi stap yusum tedei • luksave ol pepa mani olsem 200 vatu, 500 vatu, 1000 vatu • putum sam pepa mani tugeta wetem sam smol mani blong mekem wan amaon we oli askem • kaontem mo rikodem wan hip blong ol smol mani mo pepa mani we i save mekem 1000 vatu • solvem ol isi problem blong ademap mo tekemaot we i involvem mani olsem total praes mo jenisim mani • rikodem ol isi o simpol problem we oli involvem mani.

Stran: Jiometri

Sab-stran	Sep mo Angel			
Yia Level	Bigining Yia 1	Yia 1	Yia 2	Yia 3
Lening Aotkam	GI.B.V1 Luksave mo talem nem blong ol sep long lokol envaeromen blong olgeta.	GI.1.V1 Aedentifaem mo diskraebem ol sep long envaeromen blong olgeta.	GI.2.V1 Luksave, givim nem, droem, bildim mo serem ol 2-daemensen mo 3-daemensen sep.	GI.3.V1 Diskraebem ol spesel mak (karakteristik) blong ol komon (we oli save gud) tu- mo tri-daemensen sep mo objek.
Ol Indiketa	Studen i soem se i kasem aotkam taem hem i wokem olgeta samting olsem:			
	<ul style="list-style-type: none"> luksave mo faenem ol defren sep long envaeromen givim nem long ol sep majem ol sep we klosap oli semak yusum ol lokol materiel tokbaot ol sep long envaeromen blong olgeta komperem ol sep blong ol defren lokol materiel aedentifaem ol laen long lokol envaeromen mekem laen droing yusum ol fija we oli semak mo ol fija we oli defren blong putum ol sep long ol defren grup putum ol sep we oli semak wanples mo olgeta we oli defren wanples. 	<ul style="list-style-type: none"> givim nem long ol defren pat blong sep long envaeromen olsem saed, edj mo pat blong sep we i kev bildim ol objek yusum ol lokol materiel mo givim nem blong ol sep we oli yusum mekem laen droing blong ol regula mo iregula sep we oli save faenem long komyniti putum olgeta objek long defren grup folem ol karakteristik blong olgeta droem ol open mo klos sep. 	<ul style="list-style-type: none"> diskraebem ol fija blong ol sep long venakula joenem tu 2-daemesen sep blong mekem wan narafala sep yusum ol defren instrumen blong Matematik long stret wei blong olgeta, olsem rula, set skwea aedentifaem mo diskasem ol taep blong laen we oli mekemap ol objek putum ol solid tugeta we oli gat semak namba blong ol fes, kona mo edj eksplorem mo pridiktim nem blong ol defren sep oli save mekem taem oli putum ol 2-daemensen sep mo ol 3-daemensen sep oli go tugeta. 	<ul style="list-style-type: none"> komperem mo diskraebem ol karakteristik blong ol 2D mo 3D sep luksave mo save droem aksis blong simetri (wan laen we tufala saed blong objek i ikwel) long skwea, rektangel mo traeeangel (foldem pepa long haf o droem wan laen tru long sep long eni angel mo tugeta saed oli mas semak o ikwel) luksave mo save droem ol laen we oli paralel, laen we oli vetikel, laen we oli horisontol mo laen we oli daeagonal mekem ol sep oli kam bigwan mo ridiusum long ol skwea pepa eksplorem ol angel yusum ol konkrit materiel mo ol pija mekem tranfomesen long ol plen sep droem ol net blong ol tri-daemensen sep.

Sab-stran	Posisen mo spes			
Yia Level	Bigining Yia 1	Yia 1	Yia 2	Yia 3
Lening Aotkam	GT.B.V1 Diskraebem ples blong ol objek mo ol ples we oli save gud long hem (skul, jos, nakamal).	GT.1.V1 Folem mo givim daereksen blong muv long wan ples i go long narafala ples yusum ol daereksen mo posisen lanwis.	GT.2.V1 Mekem mo folem ol daereksen long ol simpol map.	GT.3.V1 Droem ol simpol map blong soem ol defren ples we oli save.
OI Indiketa	Studen i soem se i kasem aotkam taem hem i wokem olgeta samting olsem:			
	<ul style="list-style-type: none"> faenemaot mo talem stret wea ples ol defren objek oli stap long envaeromen blong olgeta tokbaot wea ples nao oli save faenem ol ples mo ol objek we oli save gud long olgeta talemaot ples blong wan objek o ples yusum lanwis olsem bihaen/long forod, antap/aninit. 	<ul style="list-style-type: none"> givim daereksen long wan man blong faenem ples we hem i wantem go long hem long komyuniti faenemaot mo putum wan objek bihaen, long forod, aninit, o antap long wan samting save defrens bitwin raetsaed mo lefsaed diskraebem ol stret samting we oli stap raon wan objek yusum plante lanwis blong daereksen diskraebem ol stret ples blong wan objek long wan simpol map we i lokol. 	<ul style="list-style-type: none"> yusum venakula o Inglis o Franis blong faenem ol ples raon long komyuniti droem ol simpol map blong soem ol defren ples mo ol samting insaed long komyuniti yusum ol simpol map we narafala studen i wokem blong faenem ol defren ples mekem wan lis blong ol daereksen blong givhan long ol man blong oli faenem samfala ples long komyuniti diskraebem stret ples blong ol objek long wan map. 	<ul style="list-style-type: none"> folem ol simpol instraksen long map blong faenem ol komon ples mo objek droem map mo givim instraksen blong gaedem wan man blong kasem wan ples o objek givim posisen blong hem folem wan ples insaed long map we oli save ridim faenemaot posisen blong wan samting long wan simpol map.

Stran: Paten

Sab-stran	Paten			
Yia Level	Bigining Yia 1	Yia 1	Yia 2	Yia 3
Lening Aotkam	PT.B.V1 Luksave mo mekem ol defren paten wetem ol materiel long lokol envaeromen blong olgeta.	PT.1.V.1 Mekem, diskraebem mo joenem ol regula mo iregula paten yusum ol lokol materiel.	PT.2.V1 Aedentifaem, krietem, diskraebem, mekem i kam bigwan (ekstendem) mo ridiusum paten wetem ol defren materiel we oli lokol mo no lokol (moden).	PT.3.V1 Krietem, diskraebem mo finisim ol defren kaen paten yusum ol namba, sep mo ol tradisonal disaen.
Ol Indiketa	Studen i soem se i kasem aotkam taem hem i wokem olgeta samting olsem:			
	<ul style="list-style-type: none"> tokbaot ol paten we oli luk long envaeromen yusum ol namba blong kaontem ol isi paten luksave ol paten insaed long komyuniti memoraesem mo yusum ol isi paten long ol plei blong olgeta aedentifaem mo ripitim ol paten blong kala long ol objek olsem basket, mat, grasket, fan. 	<ul style="list-style-type: none"> tokbaot ol defren paten long lokol komyuniti ukaotem ol paten long ol plant o ol animol yusum ol kala blong mekem ol paten long pepa, skin blong tri (bak), lif mo skin blong wan samting aedentifaem wan rul blong wan paten we i stap ripitim hemwan e. Mekemap ol defren paten long wan paten we i ripitim hemwan 	<ul style="list-style-type: none"> wokem wan rul blong hemwan blong fomem ol paten aedentifaem ol paten long ol set blong ol namba, kala mo sep luksave mo mekem bakegen ol paten krietem ol paten yusum ol sep, ol namba, ol kala mekem ol paten i kam bigwan mo mekem olgeta i kam smolsmol mekem wan niufala paten we i ripit yusum tufala fija (2 defren samting) Eksplorem ol paten mo talemaot wanem nao bae oli ting i save hapen. 	<ul style="list-style-type: none"> aedentifaem mo diskraebem ol disaen we oli stap long ol tradisonal mat, basket mo samfala moa objek krietem mo diskraebem ol paten we oli ripit we oli gat tufala fija (tu defren samting) olsem sep mo saes o kala mo sep aedentifaem wan namba paten we oli save ademap mo tekemaot long wan namba laen mekem ol namba paten we oli ripit diskraebem mo joenem (ekstendem) ol namba paten we oli ripit soem ol simpol paten wetem wan namba sikwens o wan namba laen.

Stran: Janis mo Infomesen

Sab-stran	Probabiliti			
Yia Level	Bigining Yia 1	Yia 1	Yia 2	Yia 3
Lening Aotkam	<p>CDP.B.V1</p> <p>Aedentifaem mo diskraebem ol ivent we i stap hapen insaed long komyuniti.</p>	<p>CDP.1.V1</p> <p>Aedentifaem mo diskraebem ol ivent we maet i save hapen.</p>	<p>CDP.2.V1</p> <p>Aedentifaem mo diskraebem ol ivent we bae i hapen, maet i save hapen mo olgeta we bae i neva hapen long komyuniti.</p>	<p>CPD.3.V1</p> <p>Aedentifaem, putum long grup mo diskraebem ol ivent we oli tekples long evridei laef long fasin blong janis.</p>
OI Indiketa	Studen i soem se i kasem aotkam taem hem i wokem olgeta samting olsem:			
	<ul style="list-style-type: none"> aedentifaem ol ivent we oli hapen oltaem long komyuniti olsem: jos seves, taem blong slip, taem blong girap, taem blong kakae, solwota i drae, solwota i kam so, san i girap mo san i go daon faenemaot wanem bae i hapen taem yu putum wan objek long wota, i flot o i draon? lukluk mo tokbaot ol ting we i gat janis blong oli hapen long envaeromen blong olgeta. 	<ul style="list-style-type: none"> aedentifaem ol ivent we oli stap hapen oltaem long komyuniti olsem: taem blong plantem yam mo taem blong yam i rere (havestem) aedentifaem ol ivent we oli hapen samtaem nomo long lokol komyuniti olsem: ren, saeklon, etkwek, lanslaed, sunami diskraebem janis blong ol ivent we i save hapen evridei olsem ren, taem blong go huk, taem blong karem ol frut we i redi, wanem taem bae tija i absen, wanem taem bae skul tim i winim wan gem blong hem, taem we bae bebe i sik. 	<ul style="list-style-type: none"> diskasem wanem i save hapen olsem long taem blong statem skul long moning kasem en blong skul long aftanun diskraebem probabiliti long evridei situesen mo long ol simpol gem mekem ol pridiksen long ol infomesen oli kolektem o eksperiens, olsem “Tedei weta bae i olsem wanem?” gesem ol ivent we bae i hapen, we maet i hapen mo hemia we bae i no save hapen nating aedentifaem ol ivent we bae oli hapen, i gat janis blong hapen, mo hemia we bae i no save hapen olsem: riva bae i flad, solwota i kam so mo san i girap long moning. 	<ul style="list-style-type: none"> faenemaot sapos gem i fea (namba mo eksperiens blong ol plea), rilettem i go long wanem nao hem i risal blong gem diskasem ol janis blong gat ol ivent olsem saeklon (hariken) long wan drae sisen putum ol ivent long oda folem janis we bae oli save hapen.

Sab-stran	Handelem Infomesen (Data)			
Yia Level	Bigining Yia 1	Yia 1	Yia 2	Yia 3
Lening Aotkam	CDHD.B.V1 Tokbaot mo putum long oda ol infomesen long ol komon topik.	CDHD.1.V1 Kolektem mo oganaesem ol simpol infomesen we i save soem (riflektem) wanem we hem i faenemaot.	CDHD.2.V1 Kolektem, putum long wan oda, stadi long hem mo mekem diskasen long ol infomesen.	CDHD.3.V1 Kolektem, putum long wan oda, mekem diskasen mo save talemaot wanem infomesen i minim long ol defren wei.
Ol Indiketa	Studen i soem se i kasem aotkam taem hem i wokem olgeta samting olsem:			
	<ul style="list-style-type: none"> tokabot ol kakae we oli stap kakae long komyuniti blong olgeta o long aelan blong olgeta mo putum olgeta long ol defren grup luksave mo tokbaot ol defren seremoni we i stap hapen long ol komyuniti blong olgeta tokbaot ol defren kakae mo putum long tu grup, hemia we oli laekem mo hemia we oli no laekem. 	<ul style="list-style-type: none"> kolektem ol infomesen mo yusum ol graf mo pija blong mekem displei long olgeta diskasem ol infomesem we oli kolektem aedentifaem ol risal we oli kolektem aot long wan jat putum ol infomesen i go insaed long wan tebol o wan graf wokemaot ol infomesen mo save talemaot wanem i minim mo oganaesem olgeta long graf. 	<ul style="list-style-type: none"> yusum wan simpol sevei blong kasem ol infomesen blong ansarem samfala kwesten diskasem mo mekem komen long ol infomesen we i stap long wan graf mekem mo ridim ol graf mo mekem mo yusum tali blong ripresentem infomesen we i kasem yusum ol simpol sevei mo ol inteviu blong kolektem ol infomesen abaot ol narafala pikinini mo envaeromen blong olgeta rikodem ol infomesen long ol defren wei olsem: blok mo ba graf wokemaot ol infomesen mo save talemaot wanem i minim mo oganaesem olgeta long graf. 	<ul style="list-style-type: none"> kolektem mo oganaesem infomesen long wan pijagraf droem wan pijagraf long wan skel ridim mo andastanem ol infomesen we i stap long wan simpol jat, tebol o graf presentem ol infomesen i go insaed long wan tebol o graf faenemaot wanem infomesen i minim mo tu save oganaesem infomesen ia long wan graf.

Ovaviu Tem 1

Ol aktiviti blong Tem 1, Yia 3 oli luklukbak long ol aktiviti we oli bin mekem long Yia 2. Hem i impoten tumas se studen i kasem save, skil mo atitud abaot wan Lening Aotkam bifo i muv i go long wan narafala wan. Yu save givim wan test blong faenem sapos ol studen blong yu oli kasem gud bifo ol i wok long ol aktiviti blong Tem 1 Yia 3 we oli advans lelebet moa.

Rimemba, yu save yusum ol risos blong ol **Numerasi Kit** blong mekem ol aktiviti blong tem ia. Numerasi Aktiviti buk tu i gat plante aedea long ol defren aktiviti we yu save mekem wetem ol tul blong kit. Mo tu, yu save faenem ol narafala risos blong putum i stap rere long ol lesen.

Wik	Sab-stran	Fokas blong ol Aktiviti
2	Full Namba	99–199
	Paten	Mekem ol paten
3	Full Namba	199–299
	Paten	Mekem ol paten wetem objek, namba, sep mo kala
4	Full namba	299–399
	Sep mo Anggel	Luksave mo droem ol laen
5	Longfala, Weit mo Kapasiti	Ridim ol rula blong mesarem ol objek
	Operesen	Ademap
6	Operesen	Tekemaot
	Longfala, Weit mo Kapasiti	Mesarem weit
7	Longfala, Weit mo Kapasiti	Mesarem kapasiti wetem non-standed yunit
	Operesen	Ademap
8	Taem	Lukluk long kalenda mo klok
	Probabiliti	Tingting blong mekem prediksen
9	Mani	Luksave ol valiu blong pepa mani mo ol koen
	Handelem Data	Ridim ol tebol blong infomesen
10	Sep mo Anggel	Ol karaktaristik (spesel mak) blong ol 2D mo 3D sep
	Posisen mo Spes	Ridim simpol map mo yusum grid blong givim posisen
11	Fraksen	Katem wan yunit i go long ol pat we i ikwel (kitkit)
	Longfala, Weit mo Kapasiti	Mesarem hae wetem standed yunit

Tem 1, Wik 2

Ol Sab-stran: 1. Ful Namba (99–199) 2. Paten

1. Ful Namba

Lening Aotkam: NWN.3.V1 – Ridim, raetem, ripresentem mo putum ol ful namba long oda kasem 999, yusum ol defren materiel

Fokas blong ol Aktiviti: 99 kasem 199

Ol Risos: Namba jat kasem 99, ol Yunifiks Kiub, emti katen, ol stick, ol rid o lid, bigfala pepa

Vokabulari: Wan hundred, wan hundred-wan, wan hundred-tu kasem wan hundred nanenti-naen (199), namba, smolsmol, kaontem, tael (100 Yunifiks Kiub), ba (10 Yunifiks Kiub), kiub/yunit (1 Yunifiks Kiub)

Ol Lening Aktiviti

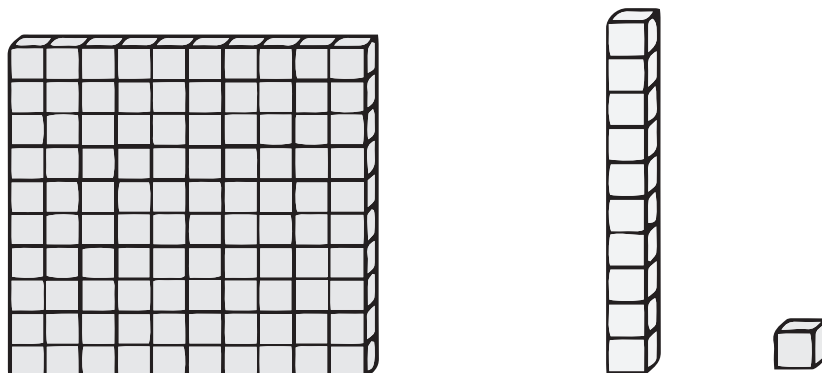
Aktiviti 1: Pas long 99 i go long 100

Putum ol studen long ol smolsmol grup. Givimaot 99 kiub long wanwan grup mo askem ol studen blong putum ol kiub i go long grup blong 10.

Droem tebol blong numeresen olsem eksampol ia long bod o bigfala pepa. Putum ol kiub mo ba wetem ol operesen insaed long tebol: i gat 9 ba (9 Ten) mo 9 kiub (9 Yunit).

Givim 1 mo kiub long wanwan grup (+1).

Eksampol:



Alawem ol studen blong tokbaot wanem bae i hapen. Talem long ol studen se, “Taem yumi adem 1 ekstra kiub (Yunit) long 9 kiub hem i kam 10 kiub o 1 ba. 1 ba ia i mov i go long ples blong Ten. Yumi ademap 1 ba ia long 9 ba we i stap finis long Ten i mekem 10 ba o 1 grup blong Handred.”

Eksampol:

Tael/Handred	Ba/Ten	Kiub/Yunit
1	10	10

Eksplenem long ol studen se taem we yumi movum grup ia i go long ples blong handred mo yumi gat namba ia:

- 100 → 1 grup blong Handred, 0 Ten, 0 Yunit
- 100 → 1 Handred, 0 Ten, 0 Yunit

Raetem figa mo wod long bod: 100 – wan handred.

Nao, soem ol studen hao blong mekem 100 yusum tebol blong numeresen:

Handred	Ten	Yunit
1	(1+) 9	9
↓	+	1
1	0	(1) 0

Ol studen oli ridim namba ia mo raetem long slet blong olgeta.

Tekem namba jat kasem 99 mo ademap wan narafala laen long hem blong soem ol studen hao blong mekem 100 nomo.

Eksampol:

0	1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18	19
20	21	22	23	24	25	26	27	28	29
30	31	32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47	48	49
50	51	52	53	54	55	56	57	58	59
60	61	62	63	64	65	66	67	68	69
70	71	72	73	74	75	76	77	78	79
80	81	82	83	84	85	86	87	88	89
90	91	92	93	94	95	96	97	98	99
100									

Not blong Tija: Yu save mekem wan wol jat namba 100 kasem 199. Mo tu, adem ol niufala laen evri taem we oli lanem wan niufala Handred.

Aktiviti 2: Ridim 100+

Raetem namba 113 long bod.

Askem ol studen blong givim mining blong wanwan dijit. Oli sud talem se, “Namba 113 i gat 1 Handred, 1 Ten mo 3 Yunit.”

Afta oli ridim 113: wan handred tetin.

Mekem aktiviti ia wetem ol namba ia mo samfala moa:

109 180 128 197 131 175 166 144

Not blong Tija: Sapos oli gat problem long ridim namba ia, yu save dikomposem 113 long 100 mo 13 yusum tebol blong numeresen olsem:

- ◆ Kavremap ol Ten mo Yunit, ol studen oli ridim ol kolom blong Handred nomo: “100, wan handred”.
- ◆ Kaaremap ol kolom blong Handred, mo ol studen oli ridim ol Ten mo Yunit: “13, tetin”.
- ◆ Afta, oli ridim namba fulwan: “113, wan handred tetin”.

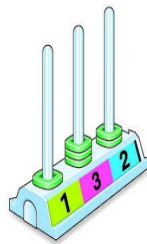
Aktiviti 3: Ridim namba long abakas

Ol Risos: Emti katen, ol stik, ol ring o lid

Mekem wan abakas wetem 3 stik yusum emti katen, bokis blong Breka mo eni nara samting we yu save stanemap stik long hem olsem, han blong kokonas, banana we yu katem long ol 2 pis.

Wanwan stik i ripsentem Handred, Ten mo Yunit. Raetem Handred, Ten mo Yunit long ples we yu stanemap ol stik. Yusum ring o lid blong mekem namba.

Eksampol:



Askem ol studen blong ridim abakas folem namba blong lid o ring long wanwan stik.

Afta, oli wok long ol smolsmol grup blong mekem samfala namba long abakas, olsem 189, 102, 124, 156. Blong mekem ol namba ia ol studen oli mas putum stret namba blong ring o lid long stret stik blong abakas.

Afta, oli raetem valiu blong ol ring o lid long figa mo long wod mo ridimaot namba.

Aktiviti 3: Raetem 100+ (KRA – luk Glosari)

Talem ol studen blong putum ol han blong olgeta long hed blong olgeta.

Singaotem wan namba blong list ia mo studen oli mas ratem namba ia hariap long slet.

Givim wan saen (olsem klapem han o kilim tebol) mo ol studen oli soemaot ol ansa we oli stap long slet blong olgeta.

Mekem stret ol ansa long bod mo long ol slet, afta mov i go long nekis namba.

124 188 105 132

179 165 117 145

Not blong Tija: Mekemsua se ol studen oli ridim mo raetem ol namba.

Aktiviti 4: Komperem 100+

Luklukbak long tufala saen ia: < >

Talem long ol studen se < i minim se “i smol bitim” mo > i minim se “i bigwan bitim”.

Mekem sam eksampol mo afta, askem ol studen blong yusum tufala saen ia blong komperem tufala namba:

110 ____ 100 105 ____ 150 165 ____ 183 190 ____ 174

Aktiviti 5: Kaontem 100+

Askem ol studen blong kaontem long grup blong 10 stat long 100 kasem 190, olsem:

100, 110, 120, 130, ____, ____, ____, ...

Afta, raetem long bod list blong namba we i stap daon mo talem se, “Olsem wanem oli kaontem long ples ia?”

Ol studen oli sud talem long yu se namba i kam bak long 5.

Askem ol studen blong finisim list ia:

195, 190, 185, ____, ____, ____, ____, 160, ...

Aktiviti 6: Putum long oda

Long aktiviti ia, ol studen oli mas givim namba we i kam bifo mo afta ol namba ia.

Askem ol studen blong fulumap ol emti bokis long wan pepa:

Namba we i kam bifo				
Namba	198	127	154	110
Namba we i kam afta				

Aktiviti 7: Raetem namba long figa mo leta

Askem ol studen blong raetem ol namba ia long namba (figa) mo wod, mo samfala moa.

Figa	Wod
180	
	Wan hundred siksti-sikis
119	
	Wan hundred-tetin
175	

Aktiviti 8: Dikomposem 100+

Ol studen oli sud save dikomposem namba olsem: $120 = 100 + \underline{\quad}$

Afta, luklukbak long dikomposem we hem i olsem: $\underline{\quad} + 20 = 120$

Wok wetem ol studen blong mekem semak wetem ol operesen ia:

$$160 = 100 + \underline{\quad}$$

$$189 = 100 + \underline{\quad}$$

$$100 + \underline{\quad} = 156$$

$$100 + \underline{\quad} = 134$$

$$100 + \underline{\quad} = 160$$

Aktiviti 9: Wok long ol dijit

Raetem ol namba ia long bod. Askem ol studen blong putum wan sekol raon ol namba we dijit blong Ten i bigwan bitim dijit blong Yunit:

189 140 160 125 181 165 105

Aktiviti 10: Tekem i go antap long Ten

Askem ol studen blong givim nekis Ten we i moa hae.

Eksampol:

$$21 \rightarrow 30 \quad 128 \rightarrow \underline{\quad} \quad 155 \rightarrow \underline{\quad} \quad 99 \rightarrow \underline{\quad} \quad 176 \rightarrow \underline{\quad}$$

Givim ol studen samfala aktiviti moa olsem wetem Ten we i mo smol, yusum ol namba $\rightarrow 199$.

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ yusum tebol blong numeresen kasem wan handred?
- ◆ ridim wan 3-dijit namba mo raetem 0 kasem 199?
- ◆ komposem (mekemap) mo dikomposem (brekemdaon) 3-dijit namba < 199 ?
- ◆ raetem namba ol namba kasem 199 long wod mo long figa?
- ◆ talem nekis Ten we i bigwan moa?
- ◆ talem nekis Ten we i bigwan moa?

Opotuniti blong Asesmen

Ol studen oli raetem long figa insaed long buk o slet ol namba ia we yu ridimaot:

199	99	119	155
175	171	101	146

2. Mekem Paten

Lening Aotkam: PT.3.V1 – Krietem, diskraebem mo finisim ol defren kaen paten yusum ol namba, sep mo ol tradisonal disaen

Fokas blong ol Aktiviti: Mekem ol paten

Ol Risos: Ol paten blok, wok kad, bidbid blong Numerasi Kit, ol instramen blong miusik

Vokabulari: 2-sep paten, 3-sep paten, bit (luk Glossari), noes

Ol Lening Aktiviti

Aktiviti 11: Eksplenem tingting blong paten

Askem ol studen blong givim mining blong toktok ia: “paten”. Tugeta, tokbaot sam eksampol we i stap long envaeromen blong olgeta, olsem paten we yu harem o paten we yu luk.

Aktiviti 12: Paten we yu harem long envaeromen

Askem ol studen blong tingbaot ol noes (saon) long envaeromen blong olgeta. Sam noes i ripit mo ol noes ia oli gat “bit” blong olgeta.

Askem ol studen blong tingbaot sam noes we i gat bit blong olgeta mo mekem saon blong ol noes ia.

Eksampol:

- ◆ Sikrasem kokonas (Krkkr! Krkrkr! Krkrkr!)
- ◆ Ren i foldaon o wota i drop
- ◆ Rasrasem laplap
- ◆ Brasem klos taem yu wasem olgeta
- ◆ Slipa blong yumi wokbaot (Klip-klop! Klip-klop!)

Mekem ol studen oli andastanem gud wan noes we i ripit, i gat wan bit, olsem klapem han, kilim tebol, bambu o emti kontena blong mekem ol paten.

Aktiviti 13: Yusum han

Singsing wan song olsem *Brata Josef o Taem Tri Faol i go long Garen*. Ol studen oli lisen mo traem blong mekem bit blong song.

Eksampol:

Singsing Brata Josef mo klapem han long ritem ia: 1-2-3-4, 1-2-3-4, 1-2-3-4.

Sapos oli no save, helpem olgeta. Ol studen oli save jusum wan smol singsing we oli save gud mo wok long hem blong faenem bit blong song. Afta, oli kam prisentem song long ful klas.

Aktiviti 14: Singsing mo mekem paten wetem objek

Mekem olsem Aktiviti 13 wetem sam narafala smol song. Yusum ol defdefren instramen blong mekem bit blong ol singsing.

Aktiviti 15: Mekem paten wetem muvmen

Putum ol studen oli go long ol smol grup. Wanwan grup i jusum wan sot miusik o wan smol singsing, mo mekem paten long muvmen. Oli save yusum han, tamtam o eni narafala samting blong soem ritem.

Askem ol grup blong soem mo eksplenem paten ia long klas.

Not blong Tija: Aktiviti ia hem i save go wetem aktiviti blong Pefoming At.

Aktiviti 16: Sep mo kala paten

Askem ol studen blong mekem wan 3-sep paten olsem: skwea, rektangel, sekol; skwea, rektangel, sekol; ...

Ol studen oli luklukgud long paten mo kontinu paten ia.

Afta, askem ol studen blong kalarem ol sep long 3 defren kala olsem red, grin, blu; red, grin, blu; ...

Aktiviti 17: Mekem paten blong ples

Lukluk mo diskraebem ol paten long wan mat mo kaliko we oli pentem finis.

Letem ol studen oli tokbaot ol paten ia. Afta, oli save mekem semak paten long wan waet pepa.

Aktiviti 18: Namba paten

Askem ol studen blong kontiniu namba paten ia long bod:

101 102 103; 101 102 103; 101 102 103...

Not blong Tija: Yu save jenisim i go long wan narafala paten.

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ luksave sep mo kala paten?
- ◆ raetem nekis sep mo kala long paten?
- ◆ mekem wan paten mo diskraebem?
- ◆ luksave namba paten long wanwan laen?
- ◆ raetem ol namba paten long wanwan laen?

Opotuniti blong Asesmen

Askem ol studen blong karem i kam long klas ol objek blong mekem paten mo alawem oli blong mekem ol paten we oli tingting long hem.

Tem 1, Wik 3

Ol Sab-stran: 1. Ful Namba (199–299) 2. Paten

1. Ful Namba

Lening Aotkam: NWN.3.V1 – Ridim, raetem, ripisentem mo putum long oda ol ful namba kasem 999, yusum ol defren material

Fokas blong ol Aktiviti: 199 kasem 299

Ol Risos: Yunifiks Kiub, 2 pis katen, tebol blong numeresen, bigfala pepa o fotokopi

Vokabulari: Ol wod blong two hundred kasem tu hundred-naenti-naen

Ol Lening Aktiviti

Aktiviti 1: Pas long 199 i go long 200

Luk long Aktiviti 1 long Wik 2 mo mekem semak wetem namba 199 kasem 299.

Long ol namba oli stap go mo big, mo yu nidim moa Yunifix Kiub yu save yusum ston o lif o yu save yusum tebol blong numeresen nomo.

Aktiviti 2: Ridim 200 i go antap (200+)

Raetem namba 200 long bod mo givim mining blong wanwan dijit.

Eksampol:

200 → 2 Handred, 0 Ten, 0 Yunit

Afta, ol studen oli ridimaot ol namba mo raetem olgeta long wod. Mo tu yu save yusum abakas we yu bin mekem long Wik 2 blong mekem ol namba ia.

225 → 242 → 266 → 250 →

234 → 261 → 204 →

Aktiviti 3: Raetem namba 200 i go antap

Askem ol studen blong raetem ol namba long tebol ia long wod mo dikomposem folem eksampol.

164	wan handred mo siksti-fo	1 Handred	6 Ten	4 Yunit	100 + 64
258					
289					
116					
239					
260					

Aktiviti 4: Raetem namba long wod

Askem ol studen blong raetem long wod mo figa ol namba ia, mo samfala moa:

109 258 116 239 260

Aktiviti 5: Komperem namba yusum < , > mo =

Rimaendem ol studen long mining blong saen ia: =

Afta, raetem ol namba ia long bod mo askem ol studen blong kopi insaed long buk blong olgeta. Askem oli blong yusum stret saen blong komperem ol tufala namba ia mo samfala moa: < > =

209 ____ 199 155 ____ 225 189 ____ 189 199 ____ 299

Not blong Tija: Ol studen oli save yusum tebol blong numeresen blong givhan long olgeta blong mekem aktiviti ia.

Aktiviti 6: Kaontem 2-2 long rod

Bifo lesen ia, mekem kopi blong jat mo givim long wanwan grup i wok wetem.

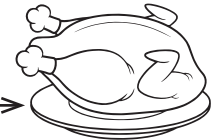
Ol studen oli mas kaontem mo ademap 2 evritaem blong faenem rod we Lassie i folem blong go kakae mit blong faol. Stat long 223 i go kasem 271.

Luk long nekis pej mo mekem wan kopi blong jat ia:

Talem ol studen blong kalarem ol bokis blong mekem stret rod.



223	225	227	232	235	237	239	241
25	221	229	231	233	234	29	243
239	233	25	237	26	222	213	245
236	25	258	255	253	251	249	247
27	215	253	257	210	269	25	24
229	29	267	259	212	27	266	21
211	29	211	261	263	265	264	29
233	23	27	29	226	267	269	271



Aktiviti 7: Kaontem long 5

Askem ol studen blong kaontem laod namba long 5 stat long 185 kasem 240, olsem:

185, 190, 195, _____, _____, _____,

Afta, oli kaontem namba stat long 290 i kam bak long 225.

Fastaem oli kaontem laod olsem full klass, afta yu jusum smolsmol grup blong oli kaontem afta wanwan studen. Taem we oli kasem plante konfidens long aktiviti blong kaontem, naoia yu save askem olgeta oli raetem insaed long buk blong olgeta.

Aktiviti 8: Putum ol namba long oda

Askem ol studen blong putum ol namba ia stat long smol wan i go long bigwan:

250 190 200 230 199 210 160 290

Aktiviti 9: Dikomposem (brekemmaon) ol namba

Raetem mo wokem wan eksampol blong dikomposem long bod wetem ol studen. Ol studen oli folem eksampol, afta oli finisim ol operesen blong dikomposem ia.

$$218 = \underline{\quad} + 18 \qquad 225 = \underline{\quad} + 25 \qquad 233 = \underline{\quad} + 33200 + \underline{\quad} = 244$$

$$100 + \underline{\quad} = 167 \qquad 200 + \underline{\quad} = 229$$

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ valiu blong ol namba stat long 199 kasem 299?
- ◆ dikomposem ol namba long fasen blong ademap stat long namba 199 kasem 299?
- ◆ putum long oda ol namba kasem 299?
- ◆ putum ol namba long stret grup blong Handred, Ten mo Yunit?
- ◆ komperem tu 3-dijit namba?
- ◆ raetem ol namba kasem 299 long figa mo long wod?

Opotuniti blong Asesmen

Givim ol studen faev 3-dijit namba bitwin 100 mo 299. Ol studen oli mas putum ol namba long oda, afta oli raetem long wod.

2. Paten

Lening Aotkam: PT.3.V1 – Krietem, diskraebem, mo finisim ol defren kaen paten yusum ol namba, sep, mo ol tradisonal disaen

Fokas blong ol Aktiviti: Mekem paten wetem objek, namba, sep mo kala

Ol Risos: Fotokopi blong ol sampol blong paten, sid mo lif blong ol tri, lid blong ol botel, ol ol pija kad, bigfala pepa mo pent

Vokabulari: Diskraebem, obsevem, krietem, finisim, tradisonal

Ol Lening Aktiviti

Aktiviti 10: Luklukbak long paten

Askem ol studen blong lukluk raon insaed long klasrum blong olgeta mo aedentifaem samfala paten mo tokbaot wetem ol fren blong olgeta. Afta long 10 minit askem olgeta blong talem fulklas abaot paten we oli bin luk insaed long klasrum.

Tekem olgeta i go aotsaed tu long envaeromen blong skul nomo mo askem olgeta blong lukaotem, faenem mo talem long evriwan samfala paten we oli luk. Hemia we oli natural mo hemia we man i mekem. Mekem gudfala diskasen blong hem, pikimap samfala mo karem i go bak insaed long klasrum.

Insaed long klasrum askem olgeta blong oli wok long ol smolsmol grup blong mekem ol jat blong paten. Oli save mekem kolaj o oli save droem nomo mo kalarem.

Aktiviti 11: Paten yusum namba

Raetem wanwan paten blong namba ia mo askem ol studen blong diskraebem tufala ia.

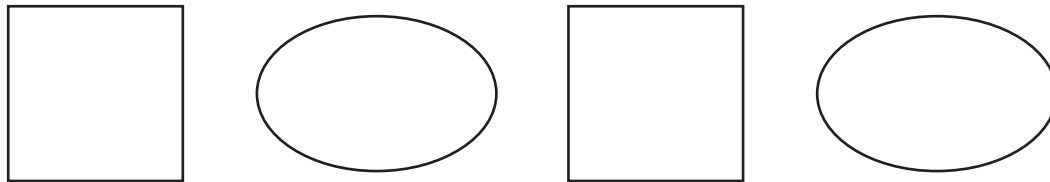
Askem ol studen blong finisim tufala paten ia:

50, 60, 70, 80, 90, __, __, __, __, __, __, __, __

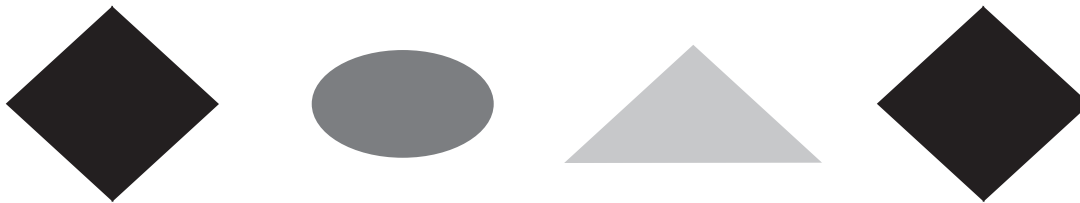
100, 95, 90, 85, 80, 75, __, __, __, __, __, __, __, __

Aktiviti 12: Paten yusum sep

Eksplenem gud long ol studen afta yu askem olgeta blong oli katemaot ol sep o yusum konkrit material (olsem ol sep blong Numerasi Kit) blong mekem samfala paten wetem 2 sep nomo. Askem ol studen blong obsevem (lukluk) ol 2-sep paten mo talem olsem wanem bae oli finisim laen ia:



Afta, ol studen oli kopi 3-sep mo 3-kala paten long ol sep ia.



Divaedem ol studen i go long ol smolsmol grup afta givim ol pija kad long olgeta. Sapos yu gat ol kad we i gat ol Pija long hem yu save yusum sapos yu nogat yumas mekem bifo long lessen ia.

Askem ol studen blong mekem arenjmen long ol kad ia blong i gat wan paten we i stap ripitim hem wan. Afta long 5 minit askem ol studen blong oli mov i go long ol grup blong lukluk ol paten we ol narafala grup i bin mekem. Afta long hemia askem olgeta blong oli go bak mo mekem narafala paten moa. Letem olgeta i pleplei wetem ol pija kad ia kasem we oli andastanem gud ripit paten.

Aktiviti 13: Paten blong tradisonal disaen

Blong mekem aktiviti ia, fastaem kontaktem wan memba blong komyuniti blong yu blong kam soem mo tokbaot ol tradisonal paten blong ol komyuniti long ol studen.

Askem wanwan studen blong jusum wan long ol paten we memba blong komyuniti i bin tokbaot mo mekem. Afta we oli mekem paten blong olgeta finis, weta hem i konkrit o long pepa oli mas gat taem blong tokbaot wetem ol fren blong olgeta. Wanem mioning blong paten ia? Wanem yus blong hem? Long wanem taem nao pipol i stap mekem ol kain paten olsem?

Naoia yu soem wan kaliko we oli pentem finis o ating taem yu pem long sto wan paten i stap long hem finis. Askem ol studen blong lukluk gud paten we i stap long kaliko mo diskraepem long wei we oli andastannem paten ia.

Eksampol:

“Kaliko ia oli pentem. i gat disaen olsem: sta, fis, nabanga blong solwata; sta, fis, nabanga blong solwota, sta, fis, nabanga blong solwota (hem i wan ripit paten)...”

Askem long olgeta kwesten ia. Sapos yu wantem wan kaliko blong flasem ples o lavalva o ating set o dress blong yu, wanem paten nao yu wantem blong i stap long hem?

Givim ol pepa long wanwan studen mo askem olgeta blong droem mo kalarem o pentem paten we oli wantem moo li imagining

Aktiviti 14: Fri-stael kriesen (tingting blong atist)

Askem ol studen oli yusum wan bigfala waet pepa o flipjat blong oli droem paten, mekem kolaj long ol konkit material blong mekem paten o mekem printing wetem pent mo ol objek blong mekem paten.

Ol studen long ol smolsmol grup blong mekem ol defren wok:

- ◆ Grup 1: Droem paten
- ◆ Grup 2: Pestem eni materiel we oli kolektem blong mekem paten
- ◆ Grup 3: Printim paten yusum ol kala pent

Yusum ol paten we oli krietem blong flasem klasrum blong yu.

Not blong Tija: Aktiviti ia hem i save go wetem Visuel At.

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ diskraebem paten blong sep mo kala?
- ◆ raetem nekis sep mo kala blong paten?
- ◆ krietem wan paten mo diskraebem?
- ◆ luksave namba paten long wanwan laen?
- ◆ save raetem ol namba paten long wanwan laen?
- ◆ krietem paten blong olgeta?
- ◆ yusum paten blong flasem wan envaeromen blong olgeta?

Opotuniti blong Asesmen

Tekem ol objek i kam long klasrum. Askem ol studen blong mekem wan 3-sep paten wetem.

Tem 1, Wik 4

Ol Sab-stran: 1. Ful Namba (299–399) 2. Sep mo Anggel

1. Ful Namba

Lening Aotkam: NWN.3.V1 – Ridim, raetem, riprisentem mo putum ol ful namba long oda kasem 999, yusum ol defren material

Fokas blong ol Aktiviti: 299 kasem 399

Ol Risos: Tebol blong numeresen, flaskad

Vokabulari: Ol wod blong ol namba tri handred kasem tri handred naenti-naen

Ol Lening Aktiviti

Aktiviti 1: Pas long 299 i go long 300

Luk long Wik 2, Aktiviti 1 mo folem semak proses. Sapos ol studen oli andastanem gud tebol blong numeresen yu save go stret long tebol ia blong pas long 299 i go long 300.

Aktiviti 2: Ridim 300 i go antap

Eksplenem long ol studen blong oli andastanem se lesson ia hem i blong oli save mekem skafolding mo semtaem save raetem ol namba ia long wod.

Askem ol studen blong ridim ol namba ia olsem we i stap. Afta oli putum ol namba long oda blong hemia we valiu blong hem i smol kasem hemia we valiu blong hem i bigfala moa. Afta askem olgeta blong oli raetem ol namba ia insaed klong ol eksasaes buk blong olgeta mo raetem wod blong hem long saed blong hem.

300 350 310 399 306 321 371 380

Aktiviti 3: Raetem 300 i go antap

Talemaot ol namba ia mo ol studen oli raetem figa long slet. Afta, mekem koreksen mo askem ol studen blong raetem ol namba long wod.

Mo tu, yu save mekem ol namba ia long abakas. Afta, ridim wanwan namba mo raetem hem long wod.

325 340 395 305 392

Aktiviti 4: Komperem ol namba yusum $<$, $>$ mo $=$

Yu save yusum numeresen tebol blong mekem aktiviti ia. Raetem ol saen ia long bod mo askem ol studen, “Yumi yusum wijwan saen?”

$< > =$

388 ____ 308

295 ____ 395

370 ____ 307

199 ____ 199

308 ____ 300

Aktiviti 5: Kaontem 300 i go antap

Askem ol studen blong kaontem stat long 285 i go kasem 300. Afta stat long 300 i kambak long 275. Mekem semak wetem sam narafala namba bitwin 299 mo 399.

Aktiviti 6: Putum stret namba long stret bokis

Yu putum jat ia antap o yu droem tebol ia long bod mo askem ol studen blong oli kopi igko insaed long ol sled blong olgeta o eksasaes buk blong olgeta. Askem ol studen oli fulumap tebol ia wetem namba we i kam bifo mo hemia we i kam afta.

Askem ol studen blong oli stap ridim mo mekem koreksen tugeta long bod o jat, mo ol studen oli mekem koreksen long eksasaes buk o slet blong olgeta.

Namba we i kam bifo						
Namba	300	389	200	379	345	350
Namba we i kam afta						

Aktiviti 7: Tekem i go antap long Ten

Talem ol studen blong tekem ol namba ia i go antap long Ten we i moa big folem eksampol:

Eksampol:

189 → Ansa: 190

89 → ____

209 → ____

79 → ____

254 → ____

99 → ____

297 → ____

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ luksave ol namba stat long 299 kasem 399?
- ◆ raetem wod blong ol namba stat long 299 i go long 399?
- ◆ ridim mo raetem long wod mo long figa blong ol namba stat long 299 kasem 399?
- ◆ komperem tu namba stat long 299 i go long 399?
- ◆ tekem wan namba i go antap long Ten we i bigwan moa?

Opotuniti blong Asesmen

Raetem long bod sam namba bitwin 299 mo 399 long wod afta askem long ol studen blong raetem insaed long buk o slet blong olgeta figa we i go wetem wod ia.

2. Sep mo angel

Lening Aotkam: GI.3.V1 – Diskraebem ol karakteristik blong ol komon (we oli save gud) 2 mo 3 daemensen sep mo objek

Fokas blong ol Aktiviti: Luksave mo droem ol laen

Ol Risos: Wan bigfafa grid, rula pensel, slet, jok, grafik pepa, **Aendiks 1**

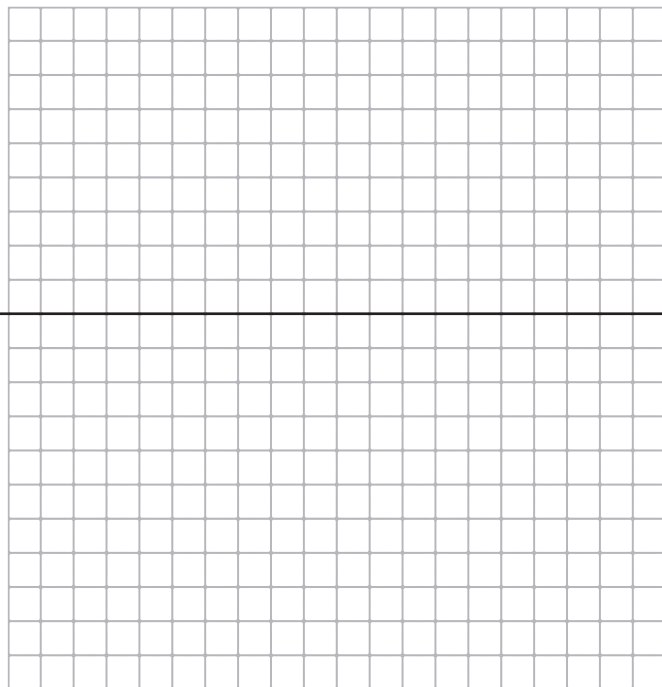
Vokabulari: Laen, poen, row, stret laen, kolom, vetikel, horisontol, kros, haf laen, paralel, pependikula

Ol Lening Aktiviti

Aktiviti 8: Ol stret laen (horisontol)

Mekem wan bigfala jat we i gat wan grid (luk **Apendiks 5**) long hem mo putum antap long bod.

Putum wan poen long lefsaed blong grid. Folem laen blong grid mo droem wan laen stat long poen ia i go long raetsaed blong tebol.



Talem long ol studen se, “Laen ia hem i wan horisontol laen.”

Mekem ol studen oli droem samfala mo horisontol laen long grid folem proses ia, yusum slet, grafik pepa o eksasaes buk we i gat smolsmol bokis long ol pej.

Nao putum wan poen long raetsaed blong grid. Folem laen blong grid, droem wan laen stat long poen ia i kam bak long lefsaed blong tebol.

Talem long ol studen se, “Hemia i wan horisontol laen tu.”Mekem ol studen oli droem samfala mo horisontol laen long grid folem proses ia, yusum slet, grafik pepa o eksasaes buk we i gat smolsmol bokis long ol pej.

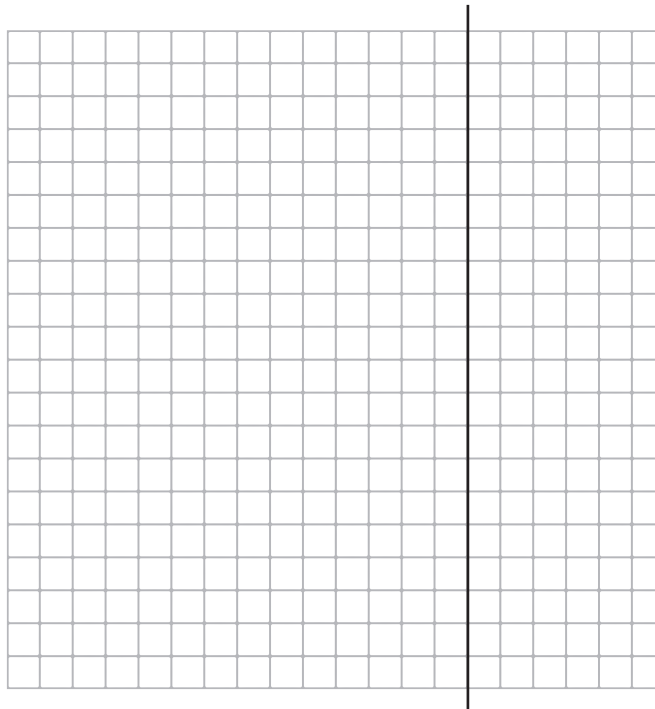
Not blong Tija: Yusum ol stik blong soem horisontol laen sapos sam studen oli faenem i had. Yu save soem ol wud insaed long klasrum blong soem laen ia.

Aktiviti 9: Ol laen we i stanap (vetikel)

Droem wan grid long bod. Putum wan poen long ples we 2 laen i kros long top blong grid. Stat long poen ia mo droem wan laen folem laen blong grid i go daon.

Talem long ol studen se, “Hemia i wan vetikel laen. Hem i stat antap i go long daon.”

Eksampol:



Mekem ol studen oli droem samfala mo vetikel laen long grid folem proses ia, yusum slet finis, grafik pepa o long eksasaes buk we i gat smolsmol bokis long pej.

Nao, putum wan poen long ples we 2 laen i kros, long daon blong grid. Stat long poen ia droem wan laen wetem rula, folem laen blong grid i go antap. Talem long ol studen se, “Laen ia tu i wan vetikel laen.”

Mekem ol studen oli droem samfala mo vetikel laen long grid folem proses ia, yusum slet, grafik pepa o eksasaes buk we i gat smolsmol bokis long pej.

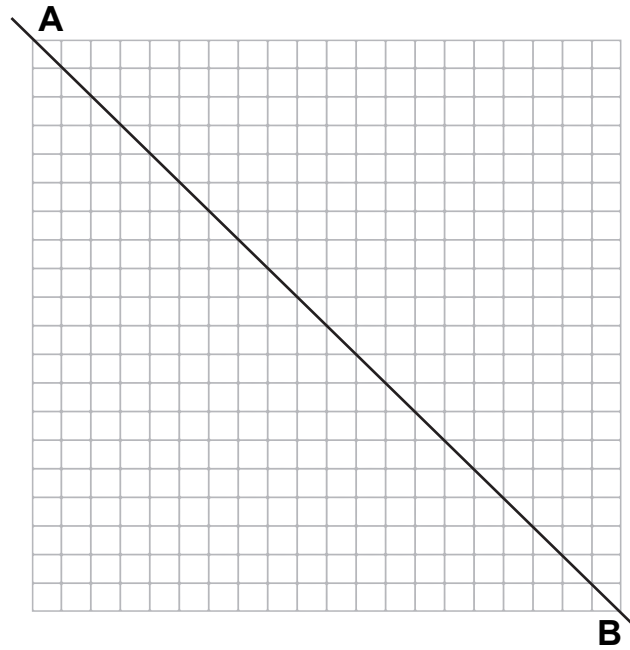
Aktiviti 10: Laen we i daeagonol

Putum wan poen A long ples we tufala laen i kros (kros laen) blong grid antap long raetsaed blong grid.

Droem wan laen i kam akros long wan poen B long wan kros laen, daon long lefsaed blong tebol grid.

Talem long ol studen se, “Laen ia hem i wan daeagonol laen. Laen AB hem i wan daeagonol laen.”

Eksampol:



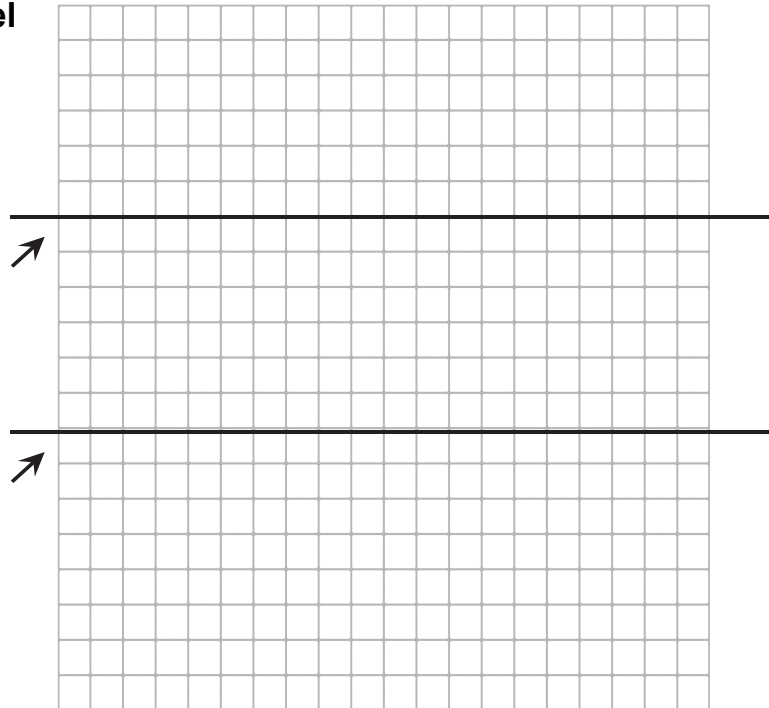
Mekem semak be stat long lefsaed mo kros i go long raetsaed. Afta, askem ol studen blong droem ol daeagonal laen folem proses ia.

Aktiviti 11: Laen we i paralel

Droem wan horisontol laen antap long top blong grid. Kaontem 3 row i kam daon, afta droem nambatu horisontol laen semak olsem hemia antap.

Alawem ol studen oli luk mo tokbaot wetem yu wanem wanem oli luk mo tingting blong olgeta. Talem long ol studen se, “Tufala laen ia i go long semak daareksen. Tufala i no save tajem mo krosem tufala. Tufala laen ia i paralel, i minim se i gat semak spes bitwin tufala stat long bigining blong tufala laen i kasem en. Bae tufala i neva mitim tufala. Hem ia nao laen we i paralel.”

Askem ol studen blong droem samfala moa paralel laen long grid folem proses ia. Yusum slet o grafik pepa o eksasaes buk we i gat smolsmol bokis long hem.



Aktiviti 12: Luklukbak long ol laen

Mekem wan kopi blong pija blong ol laen (luk long **Apendiks 1**) mo givim long ol studen wetem ol kala.

Askem ol studen blong:

- ◆ Droem ol horisontol laen long grin kala. I gat hamas?
- ◆ Droem ol vetikel laen long blu kala. I gat hamas?
- ◆ Droem ol daeagonol laen long orenj kala. I gat hamas?

Not blong Tija: Yusum ol stik blong soem laen ia long ol studen we oli faenem i had.

Sapos ol studen oli kasem gud ol laen ia, yu save mekem hem i luksave ol laen we i perpendikula long grid folem olsem ol aktiviti antap.

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ laen we i stret?
- ◆ laen we i vetikel?
- ◆ laen we i horisontol?
- ◆ ol laen we i kros?
- ◆ save ol kolom?
- ◆ ol laen we i paralel?
- ◆ laen we i daeagonol?
- ◆ joenem 2 poen A mo B long wan grid yusum wan laen?
- ◆ makem ol poen olsem A o B?
- ◆ luksave 2 laen we i perpendikula?

Opotuniti blong Asesmen

Givim wan fotokopi we i gat ol defdefren laen long hem. Ol studen oli sekolem ol laen we i paralel.

Tem 1, Wik 5

Ol Sab-stran: 1. Longfala, Weit mo Kapasiti 2. Operesen

1. Longfala, Weit mo Kapasiti

Lening Aotkam: MLWC.3.V1 – Estimetem, mesarem, komperem mo diskasem weit, longfala mo kapasiti blong ol ting yusum ol standed metod

Fokas blong ol Aktiviti: Ridim ol rula blong mesarem ol objek

Ol Risos: Ol defren saes rula olsem 1 mita rula, kabod, tebol, stik, rop

Vokabulari: Mesarem, longfala, sofala, rula, mita, sentimita, hae, distens, spes

Ol Lening Aktiviti

Aktiviti 1: Luklukbak long mesamen (longfala)

Tekem 2 studen we i gat defren hae blong stanap long fored long klas. Askem ol studen, “Tufala i bigwan semak?” Ol studen oli komperem tufala.

Afta, tekem 2 studen we hae blong tufala i lelebet semak. Alawem ol studen oli talem wanem oli luk. Bae ol ansa oli defren bitwin ol studen.

Talem olgeta se, “I nid blong yusum wan tul blong mesarem stret longfala blong ol man o woman mo objek. 1 mita rula hem i stret tul blong mesarem longfala blong tufala ia.”

Aktiviti 2: Ol kaen rula

Askem ol studen blong faenem samfala tul blong mesarem longfala long ol komuniti blong olgeta mo soem long klas long nekis dei.

Eksampol:

Rula blong studen, rula blong bod, tepmeta, stediomete (rula blong mesarem man o woman – luk pija blong nekis aktiviti).

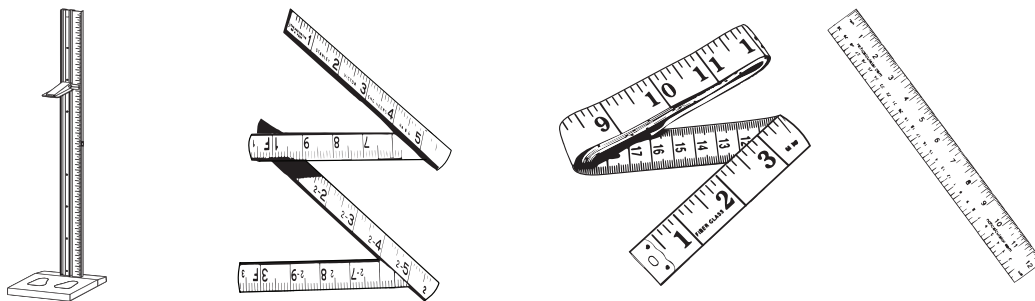
Oli soemaot long klas mo tokbaot olsem wanem blong yusum ol defren kaen rula ia.

Aktiviti 3: Defren tul blong ol defren pipol

Soem ol studen ol pija blong tul blong mesamen ia. Askem olgeta, “Wanem kaen man o woman i stap yusum ol tul ia?”

Askem ol studen blong givim tul long stret man o woman:

- ◆ Studen
- ◆ Dokta
- ◆ Tela (man o woman we i stap somap)
- ◆ Kapenta



Atiktiviti 4: Mesarem wetem ol defren rula

Ol studen oli stap long 5 grup. Givim long wanwan grup ol rula we oli gat defren longfala.

Soem tebol blong klasrum we bae oli mesarem. Oli droem wan tebol blong putum ol infomesen blong olgeta.

Askem ol studen blong mesarem longfala blong tebol.

Wanwan grup i kam blong talemaot hamas taem oli muvum rula stat blong wan en kasem narafala en. Oli go fulumap tebol long bod. Oli obsevem ol ansa mo oli komen.

Eksampol:

Grup	A	B	C	D	E
Hamas rula (Yunit)	2	3	2	4	3

Askem olgeta, “From wanem ol ansa i defren?”

Ansa: Materiel blong mesamen i no semak.

Mekem semak aktiviti wetem sotfala blong tebol.

Aktiviti 5: Mesarem wetem ol semak rula

Givim long wanwan grup semak kaen rula mo askem ol studen blong mesarem longfala blong tebol.

Wanwan grup i kam blong talemaot hamas taem oli muvum rula stat blong wan en kasem narafala en. Oli go fulumap tebol long bod. Oli obsevem ol ansa mo oli komen.

Grup	A	B	C	D	E
Hamas rula	7	7	7	7	7

Askem olgeta, "From wanem ansa i semak?"

Ansa: Yumi bin mesarem semak tebol wetem semak rula.

Mekem semak aktiviti wetem sotfala blong tebol.

Aktiviti 6: Wok long rula

Serem semak rula long wanwan studen (20 o 30sm) mo askem ol studen blong diskraebem.

Eksampol:

- ◆ Plastik rula, wuden rula, aean rula oli olsem wanem?
- ◆ Ol mak we oli stap long rula sam i big sam i smol.
- ◆ Long ol big mak i gat namba.
- ◆ Ol namba oli stat long 0 kasem 20 o 30.
- ◆ Samfala rula i gat mak long tugeta saed.

Mekem ol studen oli ridim mak long rula: 0, 1, 2 kasem laswan hem i 20 o 30.

Not blong Tija: Studen i mas andastanem se i gat defren saes rula we hem i save yusum

Aktiviti 7: Yunit blong mesamen

Ol studen oli wok tutu. Oli komperem ol rula blong tufala. Putum wan antap long narafala wan. Mekemsua se ol namba oli laen long semak level.

Askem olgeta blong talem wanem oli luk. Oli sud talem se, “Spes o distens bitwin ol bigfala mak mo ol namba oli oltaem semak.”

Talem ol studen, “Longfala blong spes ia hem i 1 sentimita = 1sm.”

Raetem long bod mo ol studen oli ridim mo raetem long buk blong olgeta.

Not blong Tija: Sapos sam studen oli gat problem blong lukluk gud, givim wan rula we saes blong ol raeting i bigwan.

Aktiviti 8: Kaontem spes long rula

Askem ol studen blong kaontem ol spes bitwin ol bigfala mak o ol namba long rula.

Talem bitwin tu mak o tu namba i gat 1 sentimeta

Ol studen oli kaontem evri spes long rula blong olgeta. i save gat 30 spes (30 sentimeta) o 20 spes (20 sentimeta). Talem i gat rula blong 30sm mo rula blong 20sm.

Askem, “Hamas sentimita i kam bitwin 0 mo 3 long rula?”

Ansa: 3sm

Mekem semak wetem:

2 mo 7? **Ansa:** 5sm

10 mo 18? **Ansa:** 8sm

Aktiviti 9: Mesarem ol objek

Talem ol studen blong kopi tebol ia. Askem ol studen blong mesarem ol objek mo rikodem ol ansa blong olgeta long tebol olsem ia:

Saed	Eksasaes buk	Tebol blong studen	Doa blong kabod
Longfala			
Sotfala			

Askem ol studen blong putum ol longfala blong ol saed long oda, stat long smolwan i go long bigwan.

Afta, askem olgeta blong putum ol longfala blong ol sotfala saed long oda from bigwan i kam long smolwan.

Aktiviti 10: Hao blong yusum rula

Ol studen oli yusum rula blong droem wan laen long A kasem B. $AB = 7\text{sm}$.

Eksampol:

$$0 = A \text{ kasem } 7 = B$$



Eksplenem long ol studen blong putum 0 we i stap long en blong rula long wan en blong objek we yu wantem mesarem. Narafala en blong objek hem i soem longfala blong hem folem namba we i stap long rula.

Wok wetem ol studen blong mesarem wan pen tugeta. Afta, letem olgeta i mekem ol eksasaes ia. Askem ol studen blong yusum rula mo pensel blong droem ol laen ia insaed long buk blong olgeta stat long hemia we i sotfala kasem hemia we i longfala bitim evriwan.

$$CD = 15\text{sm} \quad EF = 5\text{sm} \quad GH = 9\text{sm} \quad IJ = 7\text{sm} \quad KL = 20\text{sm}$$

Yu save mekem samfala moa long konkrit material o semak olsem antap.

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ putum ol objek long oda folem longfala blong olgeta?
- ◆ komperem ol hae mo longfala blong ol objek long klasrum?
- ◆ yusum ol toktok mo vokabulari blong mesamen?
- ◆ givim nem blong sam tul blong mesarem longfala?
- ◆ ridim wan rula?
- ◆ eksplenem wanem mak i stap long rula?
- ◆ mesarem mo droem wan laen wetem wan rula?

Opotuniti blong Asesmen

Givim wan aktiviti blong droem 3 laen long buk blong olgeta. Askem ol studen blong givim mesamen blong trifala laen ia.

2. Operesen

Lening Aotkam: NO.3.V1 – Solvem ol problem we i involem ademap, tekemaot mo multiplikesen yusum ol defren wei

Fokas blong ol Aktiviti: Ademap

Ol Risos: Tebol blong ademap, set blong ol objek o ol samting olsem sel, smol stik, ston, lif, top blong botel, kaonta, bidbid, stik blong aesblok

Vokabulari: Ademap, operesen, kolom

Ol Lening Aktiviti

Aktiviti 10: I nidim hamas?

Talem long ol studen smol storian ia mo askem blong droem pija blong soem storian:

“Aotsaed long wan bokis pensel, oli raetem “12 pensel”. Be insaed long bokis ia i gat 8 pensel nomo. Hamas pensel i no stap?”

Soem stori ia long wan operesen: $8 + \underline{\quad} = 12$

Ol studen oli finis operesen ia:

- ◆ Yumi nidim 4 pensel mo blong mekem 12.
- ◆ 4 i go wetem 8 blong mekem 12.

Yu mekem samfala moa storian olsem blong ol studen oli putum blong operesen mo wokemaot.

Aktiviti 11: Moa operesen blong i nidim hamas

Askem ol studen blong finisim ol operesen ia:

$10 + \underline{\quad} = 15$

$8 + \underline{\quad} = 10$

$6 + \underline{\quad} = 10$

$30 + \underline{\quad} = 100$

$\underline{\quad} + 10 = 15$

$40 + \underline{\quad} = 100$

$20 + \underline{\quad} = 100$

$50 + \underline{\quad} = 100$

Aktiviti 12: Tebol blong operesen

Putum jat blong operesen tebol antap o yu droem wan bigfala wan long bod. Askem ol studen blong lukluk gud long tebol ia mo faenem ol ansa blong ol operesen we i stap insaed blong komplitim tebol.

Eksampol:

Luk long kolom nambatu we i bin komplitim finis. Blong mekem ol narafala kolom ademap ol namba we i stap long laen we i vetikel wetem ol namba long laen we i horisontol.

+	1	3	5	7
2	3			
4	5			
6	7			
8	9			

Sapos yu ting se hem i had long klas blong yu, yu save desaenem wan we i simpol blong ol studen blong yu oli stat wetem fastaem. Mekem samfala moa blong ol studen oli wok long hem.

Aktiviti 13: Sam moa ademap we i no finis

Askem ol studen blong komplitim ol operesen ia:

$$\begin{array}{cccc}
 4 + \underline{\quad} = 13 & 14 = 7 + \underline{\quad} & \underline{\quad} + 8 = 11 & 17 = 8 + \underline{\quad} \\
 9 + \underline{\quad} = 17 & 15 = \underline{\quad} + 9 & &
 \end{array}$$

Aktiviti 14: Faenem namba we bae i komplitim ademap

Wok wetem ol studen blong faenem ansa blong fesfala operesen ia. Putum wok i stap antap long bod o long wan bigfala pepa blong ol studen oli lukluk oltaem mo wok long ol narafala.

$$\begin{array}{cccccc}
 32 & 45 & 29 & 63 & 36 & 54 \\
 + \underline{\quad} & + \underline{\quad} & + \underline{\quad} & + \underline{\quad} & + \underline{\quad} & + \underline{\quad} \\
 57 & 88 & 49 & 76 & 68 & 97
 \end{array}$$

Sapos yu ting se hem i had long klas blong yu, yu save desaenem wan we i simpol blong ol studen blong yu oli stat wetem fastaem.

Aktiviti 15: Tebol blong operesen

Mekem wan bigfala tebol blong operesen olsem eksampol ia. Wok wetem ol studen blong komplitim wan o tu laen olsem eksampol. Afta, askem ol studen blong komplitim ful tebol.

+	0	1	2	3	4	5	6	7	8	9	10
0	0	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10	11
2											
3											
4											
5											
6											
7											
8											
9											
10											

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ faenemaot namba we i nogat blong mekem wan total?
- ◆ mekem operesen blong ademap we wan namba i no stap?
- ◆ putum ol namba we i no stap long kolom i go long kolom bifo wan operesen blong ademap?
- ◆ komplitim ol emti bokis long wan tebol blong operesen wetem ademap?
- ◆ yusum tebol blong ademap long ol operesen blong olgeta?

Opotuniti blong Asesmen

Askem ol studen blong yusum kaonta o sam narafala material blong mekem wan operesen blong ademap mo finisim pat we namba i no stap.

Eksampol:

$$25 + \underline{\quad} = 3$$

Tem 1, Wik 6

Ol Sab-stran: 1. Longfala, Weit mo Kapasiti 2. Operesen

Longfala, Weit mo Kapasiti

Lening Aotkam: MLWC.3.V1 – Estimetem, mesarem, komperem mo diskasem weit mo kapasiti blong ol ting yusum ol standed metod

Fokas blong ol Aktiviti: Mesarem weit (hevi)

Ol Risos: Ol defren objek we i gat ol defdefren saes mo weit/mas, ol defren kaen skel, ol defdefren kaen kakae

Vokabulari: Hevi, laet, hevi moa, laet moa, semak, bigwan, smol, weit, balens, no balens

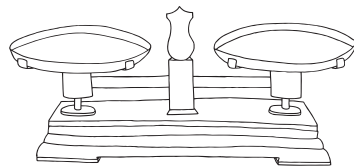
Ol Lening Aktiviti

Aktiviti 1: Luklukbak long hevi mo balens

Jusum 2 objek we i no hevi semak. Askem wan studen i karem wanwan objek long wanwan han blong hem. Askem hem blong talem se wijwan i moa hevi long narafala.

Nao, mekem studen i karem objek we i lelebet hevi semak. Askem hem blong tokbaot long objek. Wanem tingting blong hem? Wijwan i moa hevi?

Ripit long ol narafala studen. Bae ansa i defren bitwin ol studen.



Soem olgeta hemia wan nid blong gat wan tul blong tekem stret hevi blong ol samting. Tul ia hem i talem “skel” (luk pija blong Aktiviti 2).

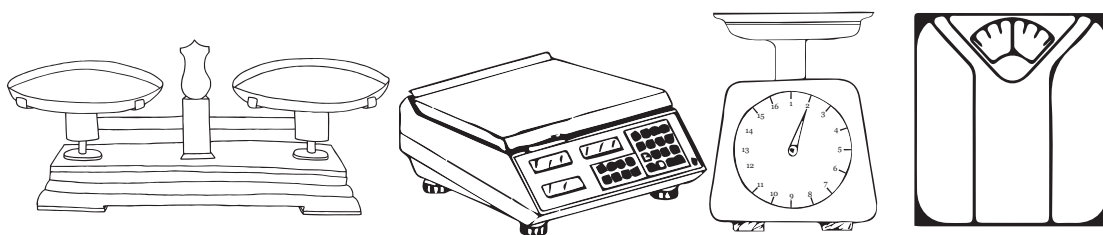
Aktiviti 2: Introdium ol kaen skel

Soem ol studen skel o pija blong skel. Tokbaot skel ia se i olsem wanem mo diskraebem ol pat blong hem olsem plet, nidel, balens o skel.

Aktiviti 3: Ol kaen skel

Askem ol studen blong faenemaot ol kaen skel we i stap long envaeromen blong olgeta. Afta, ol studen oli kam prisentem wanem we oli faenem long klas.

Eksplenem long ol studen wanem kaen skel i yus long wanem kaen samting. Talemaot long ol studen tu from wanem ol skel ia oli defren. Helpem save blong ol studen long wea ples nao oli save faenem ol skel ia long hem.



Aktiviti 4: Balens mo nogat balens?

Tekem defren objek olsem wan bigfala ston mo wan smol plastik raes, o tu aranis. Putum wanwan objek long skel we i gat tu plet.

Mekem toktok long balens, olsem:

- ◆ Tufala objek ia oli gat balens o nogat balens?
- ◆ Ston i mo hevi bitim plastik raes.
- ◆ Tufala aranis i hevi semak – oli gat balens.
- ◆ Lukluk posisen blong nidel.

Aktiviti 5: Droem balens

Studen oli wok long grup long tu (tutu). Askem olgeta blong yusum skel blong skelem ol objek mo raetem stori blong olgeta:

- ◆ Kumala mo paenapol: paenapol hem i moa hevi bitim kumala.
- ◆ Kumala mo pamken: pamken hem i moa hevi bitim kumala.
- ◆ Kumala mo kon: manggo mo kon oli balens, plet i stap long semak level.
- ◆ Kumala mo tomato: kumala hem i moa hevi bitim tomato.
- ◆ Kumala mo aranis: kumala mo aranis oli balens, i stap long semak level.
- ◆ Kumala mo kapsikam: kumala hem i moa hevi bitim kapsikam.

Fulumap tebol ia olsem rikodem ol risal blong wanwan skel:

Ol kaka we i mo hevi bitim kumala	Ol kaka we i no hevi bitim kumala	Ol kaka we i balens, we i semak level wetem kumala

Yu save jenisim ol objek folem wanem we yu save faenem o wanem we ol studen oli save faenem.

Sapos yu gat inaf taem, yu save askem ol studen blong droem insaed long buk blong olgeta pija blong samfala long ol skel wetem ol objek long hem.

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ talem wijwan objek hem i hevi mo wijwan hem i laet?
- ◆ wijwan objek hem i hevi tumas mo wijwan hem i laet lelebet?
- ◆ ol objek oli gat balens o nogat balens?
- ◆ mekem resej abaot ol skel mo oli save mekem wan smol toktok long skel?

Opotuniti blong Asesmen

Putum ol studen oli go long ol smolsmol grup mo givim wanwan skel blong olgeta. Askem olgeta blong tekem 2 objek mo putum long skel. Oli mas talem tingting blong olgeta abaot tufala objek. Wijwan i hevi moa mo from wanem?

2. Operesen

Lening Aotkam: NO.3.V1 – Solvem ol problem we i involvem ademap, tekemaot mo multiplikesen long yusum defren wei

Fokas blong ol Aktiviti: Tekemaot

Ol Risos: Tebol blong numeresen, tebol blong tekemaot, tebol blong ademap, Yunifix Kiub, ston, lid blong botel, lif blong tri

Vokabulari: Tekemaot (subtraction/sustraction), hamas, problem

Ol Lening Aktiviti

Aktiviti 7: Hamas i aot?

Talem stori ia long ol studen mo askem blong droem stori.

“Long wan bandel banana, i gat 12 frut. John i kakae samfala banana. Taem mama blong hem i kam, hem i lukim 7 banana nomo i stap. Hamas banana nao John i bin kakae?”

Askem ol studen, “Hamas banana nao John i bin kakae?”

Oli lukaotem ansa, afta oli eksplenem hao oli bin faenem ansa blong olgeta.

Eksampol:

$$12 - 7 = \underline{\quad}$$

I bin gat 12 banana be naoia 7 banana nomo i stap i minim se John i bin kakae 5 banana.

$$7 + \underline{\quad} = 12$$

7 banana i stap, hamas banana moa blong mekem 12?

Talem, “12 tekemaot 7, 5 i stap; i minim se 5 banana i bin aot. Operesen ia hem i wan operesen blong tekemaot (subtraction/soustraction).”

Mekem samfala moa blong ol studen oli wok long hem.

Aktiviti 8: Hamas i stap?

Ol studen oli putum 15 ston long tebol blong olgeta. Nao yu tekemaot 4 ston. Askem, “Hamas ston nao i stap long tebol?” Askem ol studen blong raetem operesen blong tekemaot long slet blong olgeta:

$$15 - 4 = 11$$

Nao, putumbak ol 4 ston mo tekem 15. Ol studen oli sud raetem:

$$15 - 15 = 0$$

Rimaendem ol studen: long wan operesen tekemaot, fes pat blong operesen i oltaem moa big bitim o ikwel long sekond pat.

Aktiviti 9: Problem yusum tekemaot

Raetem 2 namba ia long bod mo askem ol studen blong raetem wan stori i go wetem tufala namba:

$$27 - 16$$

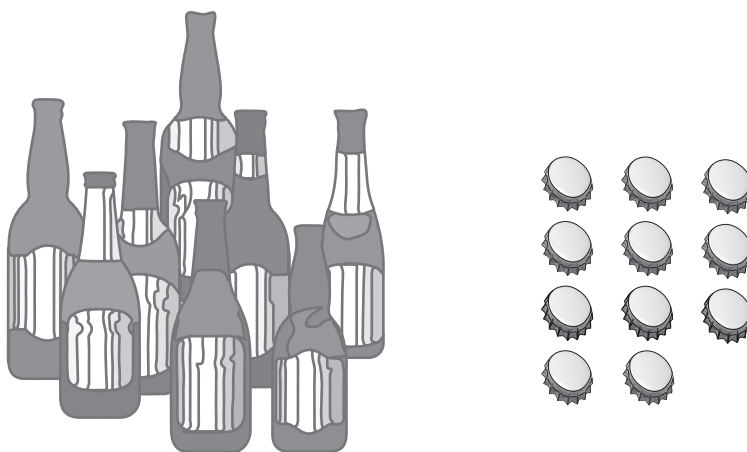
Eksampol:

I gat 27 buk long klasrum. Long en blong yia 16 nomo i stap. Samfala buk i bin nogud. Faenemaot hamas nao i nogud?

Lukluk ol defren wei we ol studen oli studen mekem. Ripitim semak aktiviti wetem ol narafala namba.

Aktiviti 10: Wanem defrens?

Yu save mekem aktiviti ia wetem ol botel mo lid we yu bin kolektem o yusum pija nomo.



Askem ol studen blong kaontem ol lid, i gat hamas? Talem long olgeta se, “Nao, kaontem ol botel, i gat hamas?”

Talem long ol studen se, “Namba blong lid i defren long namba blong botel.”

Askem olgeta blong oli kalkuletem defrens ia. Oli sud putum operesen long laen, olsem o kolom olsem:

$$11 - 9 = 2$$

$$\begin{array}{r} 11 - 9 \\ \hline 2 \end{array}$$

Aktiviti 11: Tekemaot

Soem long ol studen wan eksampol blong wok wetem tekemaot (-) mo askem blong oli folem blong mekem ol narafala operesen:

$8 - 6 = 2$

$7 - 4 = \underline{\quad}$

$10 - 3 = \underline{\quad}$

$20 - 8 = \underline{\quad}$

$6 - 6 = \underline{\quad}$

$15 - 5 = \underline{\quad}$

Not blong Tija: Sentaem we oli stap faenem ol ansa blong ol simpol operesen ia oli save stat tu blong fulumap tebol blong tekemaot olsem hemia:

-	1	2	3	4	5
6	5	4	3	2	1
7					
8					
9					
10					

Yu save mekem plante moa tebol blong operesen wetem tekemaot blong ol studen i wok long hem o yu save askem ol studen blong mekem wan blong olgeta.

Aktiviti 12: Sam moa operesen wetem tekemaot

Askem ol studen blong oli wok long smolsmol grup blong tokbaot ol operesen ia mo faenem ol namba we i no stap.

Eksplenem gud long ol studen se hem i impoten blong save se taem yu luk i gat wan spes long operesen blong ademap, yumas mekem wan operesen blong tekemaot blong faenem ansa blong yu. Mo taem yu luk i gat wan spes long operesen blong tekemaot, yu mas mekem wan operesen blong ademap blong faenem ansa blong yu.

$8 + \underline{\quad} = 10$

$\underline{\quad} + 9 = 59$

$10 + \underline{\quad} = 19$

$\underline{\quad} + 12 = 22$

$13 + \underline{\quad} = 20$

$\underline{\quad} + 32 = 40$

Eksplenem long ol studen from wanem tekemaot mo ademap i dipen long tufala blong faenem ol namba we i no stap long ol situesen olsem:

$27 + \underline{\quad} = 30$

$30 - 27 = \underline{\quad}$

$\underline{\quad} + 9 = 60$

$\underline{\quad} - \underline{\quad} = \underline{\quad}$

$20 + \underline{\quad} = 80$

$80 - 20 = \underline{\quad}$

$39 + \underline{\quad} = 40$

$\underline{\quad} = \underline{\quad}$

Mekem samfala moa blong ol studen oli praktisim moa long hem.

Aktiviti 13: Operesen tebol wetem tekemaot

Mekem wan bigfala jat blong operesen wetem tekemaot mo praktisim samfala wetem ol studen. Askem ol studen blong oli wok long ol grup blong komplitim blong olgeta mo afta askem olgeta blong mekem samfala moa insaed long buk.

-	10	9	8	7	6	5	4	3	2	1
10	0									
9	1	0								
8	2	1								
7	3	2								
6	4	3								
5	5	4								
4	6	5								
3	7	6								
2	8	7								
1	9	8								

Not blong Tija: Taem we ol studen oli mekem samfala simpol operesen blong tekemaot long ol aktiviti, tekem janis ia blong fulumap tebol blong tekemaot mo mekem oli lanem.

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ kalkuletem defrens we i stap long wan grup afta we i gat tekemaot long hem?
- ◆ komplitim wan operesen blong faenem hamas moa i nid yet blong mekem wan total?
- ◆ wokemaot operesen blong $11 + \underline{\quad} = 18$; mo $18 - 7 = 11$?
- ◆ putum wan operesen blong tekemaot long laen?
- ◆ saen mo mining blong tekemaot?
- ◆ fulumap tebol blong tekemaot?
- ◆ yusum tebol blong tekemaot taem oli kaontem wan operesen tekemaot?

Opotuniti blong Asesmen

Givim 2-dijit namba operesen wetem tekemaot long ol studen olsem:

$$25 - \underline{\quad} = 20$$

Putum ol studen oli go long ol smosmol grup, afta askem olgeta blong mekemap wanwan storian blong tekemaot. Oli givim storian blong olgeta long narafala grup mo askem narafala grup blong raetemaot operesen we i stap insaed long stori mo faenem ansa blong hem.

Oli serem ol storian mo ol ansa blong olgeta long ful klas.

Tem 1, Wik 7

Ol Sab-stran: 1. Longfala, Weit mo Kapasiti 2. Operesen

1. Longfala, Weit mo Kapasiti

Lening Aotkam: MLWC.3.V1 – Estimetem, mesarem, komperem mo diskasem weit, longfala mo kapasiti blong ol ting yusum ol standed metod

Fokas blong ol Aktiviti: Mesarem kapasiti wetem non-standed mo standed yunit

Ol Risos: Baket, botel, jag, kontena blong aeskrim, wota, sanbij, glas

Vokabulari: Kontena, kapasiti, kapsaetem, dabol, lita, mililita

Ol Lening Aktiviti

Aktiviti 1: Kapasiti blong ol kontena

Bifo long aktiviti ia, askem long ol studen blong oli kam long klas wetem ol defdefren kaen kontena.

Wok long grup blong 4 o 5 studen. Askem wanwan grup blong luklukgud long ol kontena blong olgeta mo tokbaot wijwan nao bae i holem plante wota o sanbij bitim ol narafala kontena.

Afta, oli yusum wota o sanbij blong faenem sapos tingtong blong olgeta i stret o no.

Eksampol:

Fulumap wota insaed long kontena A mo kapsaetem i go insaed long kontena B. Sapos evri wota long A i go long B be i gat spes yet long B, i minim se B i gat bigfala kapasiti bitim A. Be sapos kontena B i fulap be i gat sam wota yet long kontena A, i minim se kontena A i bigfala bitim kontena B.

Not blong Tija: Givim taem long ol studen blong plepleii plante wetem ol kontena blong oli kasem gud save long kapasiti.

Aktiviti 2: Sam moa praktis blong kapasiti

Jusum 5 kontena. Tufala long olgeta i mas gat semak kapasiti. Trifala long olgeta i mas gat ol defdefren kapasiti.

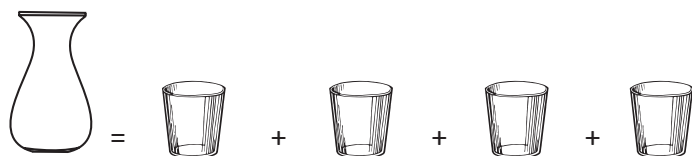
Kapsaetem wota i go long faevfala kontena ia mo askem olgeta kwesten ia long ol studen:

- ◆ Wijwan long olgeta kontena oli gat semak kapasiti?
- ◆ Wijwan long ol kontena kapasiti blong hem i bigfala bitim evri narawan?
- ◆ Wijwan long ol kontena ia i gat smol kapasiti bitim ol narafala?

Hemia wan wei blong mekem eksasaes ia. Yu save faenem narafala wei blong helpem ol studen oli komperem kapasiti blong ol kontena.

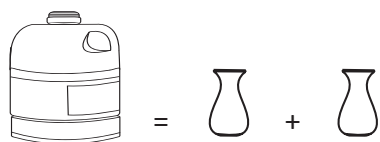
Aktiviti 3: Komperem, luksave mo faenem stret kapasiti blong ol kontena

Yu save yusum konkrit material o mekem aktiviti ia long bod nomo. Talem long ol studen se, jag ia, i gat semak kapasiti blong 4 glas blong wota o 4 glas blong wota nao bae i fulumap gud jag ia. Yumi save droem blong soem olsem:

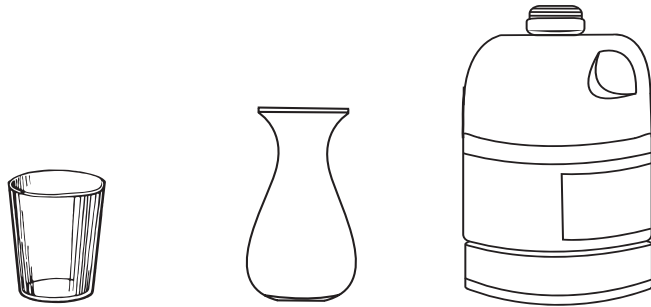


Nao, talem long olgeta se, botol ia i gat wan kapasiti we i dabol long jag. Hemia bae i minim se tu jag nao bae i fulumap gud kontena ia.

Yumi droem olsem:



Luklukbak long mining blong ‘dabol’. Dabol hem i minim tu taem. Naoia, komperem kapasiti blong trifala kontena ia.



Askem ol kwesten ia long ol studen (diskas olsem wan ful klas).

- ◆ Hamas taem nao glas i save fulumap jag?
- ◆ Hamas taem nao jag i save fulumap wota botel?
- ◆ Sapos 4 glas oli fulumap jag, hamas taem nao bae i fulumap wota botel?

Hem i impoten se yu givim ol kwesten wanwan blong gaedem andastanding blong ol studen.

Yu save faenem samfala narafala kontena moa blong givhan long ol studen blong andastanem moa long eria ia.

Aktiviti 4: Yusum botel blong mesarem

Mesarem kapasiti blong wan baket wetem wan plastik botel blong wota. Botel ia hem i yunit blong mesamen. Hemia bae i save givhan long ol studen blong oli save se baket i save holem hamas wota.

Faenemaot se sapo baket ia i semak o ikwel long hamas botel wota, olsem 5 botel wota. Sapos i nidim ekstra haf botel wota talem long ol studen se, “Baket ia i kontenem bitwin 5 mo 6 botel wota o kotenem 5 mo haf botel wota.”

Not blong Tija: Askem ol studen blong karem ol defdefren saes blong baket mo botel i kam long klas blong oli save gat janis blong plepleii moa long aktiviti ia blong kasem gud konsep blong yusum botel blong mesarem kapasiti blong ol baket o ol narafala kotena we oli bigwan moa.

Aktiviti 5: Yusum ol defdefren Yunit blong mesarem

Putum ol studen i go long ol smolsmol grup. Askem olgeta blong droem tebol ia long wan pepa afta oli statem blong mekem mesamen aktiviti blong olgeta. Askem olgeta oli yusum wan kontena olsem jag, kontena blong aeskrim, kap blong dring wota blong mekem mesamen.

Taem oli stap mekem aktiviti ia oli stap fulumap tebol ia tu:

Kontena	Hamas jag i fulumap	Hamas kontena blong aeskrim i fulumap?	Hamas kap blong dring wota i fulumap?
Baket wota			
Sospen			

Sapos wan long olgeta kontena blong mekem mesamen i nidim smol moa blong baket o sospen i fulap, yu save putum insaed long tebol toktok ia “haf”.

Eksampol:

“3 mo haf i minim se kontena blong mesamen i fulap gud 3 taem mo smol moa.”

Afta yu bin mekem ol mesamen, askem ol studen, “Sem baket wota be ansa i no semak. From wanem?”

Bae yu ekspektem ansa ia: “Hem i no semak saes kontena blong mekem mesamen o i no semak yunit blong mesamen.

Aktiviti 6: Mesarem wetem semak yunit

Ol studen oli go long 3 grup. Tekem 3 empti baket we i semak saes. Givim wanwan grup jag we oli semak saes tu mo askem ol studen blong fulumap baket long wota.

Oli mas kaontem hamas jag oli kapsaetem blong fulumap baket. Afta komperem risal blong olgeta mo raetem long wan tebol.

Askem ol studen: “From wanem trifala grup oli faenem semak namba?”

Bae yu ekspektem ansa ia: “Yumi yusum ol jag we oli semak saes mo ol baket we oli semak saes tu.”

Ol studen mas talem olsem: “Blong yumi gat semak ansa yumi mas yusum semak yunit blong mesarem wan objek o wan samting.”

Aktiviti 7: Ridim konten blong ol kontena

Soem wan bigfala botel blong wota (1.5 lita) wetem eni narafala kontena blong wota o aeskrim we oli putum mak mo yunit blong mesamen long hem o kapasiti mo yunit blong mesamen long hem.

Ol studen oli mas ridim blong save, sapos we oli no kasem gud bae yu givhan long olgeta blong save o andastanem gud.

Mekem diskasen mo faenemaot hamas kontena long ol lokol stoa we oli makem kapasiti mo yunit blong mesamen long hem. Mekem wan lis mo displei long klasrum.

Ol Kwesten blong Asesmen:

Ol studen oli save:

- ◆ putum ol objek long oda blong kapasiti blong olgeta? Stat long smol wan kasem bigwan o bigwan kasem smol wan?
- ◆ talem o estimetem hamas nao wan kontena i save holem (hemia hem i kapasiti blong wan kontena)?
- ◆ yusum kapasiti blong ol defdefren kontena blong komperem ol olgeta?
- ◆ se blong komperem konten oli mas yusum semak yunit blong mesamen?
- ◆ hamas botel wota bae i save fulumap wan baket?
- ◆ hamas glas blong wota i save fulumap long botel?
- ◆ se wijwan tul blong mesarem oli save yusum blong fulumap ol defren kontena?
- ◆ wanem ia kapasiti?

Opotuniti blong Asesmen

Ol studen oli mesarem trifala baket we oli gat semak kapasiti be ol baket ia i no fulap semak.

Oli mas yusum semak tul blong mesarem, olsem wan jag.

- ◆ Baket 1 = ____ jag
- ◆ Baket 2 = ____ jag
- ◆ Baket 3 = ____ jag

Putum trifala baket long oda stat long hemia we i fulap gud kasem hemia we i no fulap gud.

Stat long hemia we namba blong wota long jag i smol kasem hemia we i gat moa wota long jag.

2. Operesen

Lening Aotkam: NO.3.V1 – Solvem ol problem we oli involvem ademap, tekemaot mo multiplikesen yusum ol defren wei

Fokas blong ol Aktiviti: Ademap

Ol Risos: Tebol blong ademap, ston, lif, lid blong botel mo narafala materiel blong kaontem

Vokabulari: Ademap, ikwel

Ol Lening Aktiviti

Aktiviti 8: Putum wan ples mo ademap

Talem long klas smol stori ia: “I gat 2 grup blong pikinini i stap plepleii long fil blong futbol. Long wan grup i gat 24 pikinini, long narafala grup i gat 15 pikinini.”

Askem ol studen blong droem stori ia mo talem se, “I gat hamas pikinini evriwan long fil blong futbol?”

Askem ol studen blong soem operesen: $14 + 15 = 29$

Givhan long olgeta tu blong oli save putum long kolom bifo oli operetem

Eksampol:

1	4	+
1	5	
2	9	

20 + 16 = ... pikinini

Talem long ol studen se, “Taem yumi putum ol samting we i laef o ol objek wan ples yumi talem se yumi ademap. Namba i kam bigwan moa.”

Putum operesen ia long bod mo askem long ol studen oli wok long ol smolsmol grup blong oli faenem total blong hem mo tokbaot wetem ol narafala memba blong klas hao nao oli bin faenem total o ansa blong olgeta.

Eksampol:

$$20 + 16 = 36$$

- ◆ 36 hem i total blong ademap blong 20 mo 16.
- ◆ $20 + 16$: hem i wan operesen blong ademap (addition).
- ◆ $20 + 16 = 36$: yumi tekem total blong grup wan mo ademap wetem total blong grup two
- ◆ $16 + 20 = 36$: yumi tekem total blong grup tu mo yumi ademap wetem total blong grup wan

Eksplenem long ol studen se; wetem ademap yumi save jenisim posisen blong tufala namba taem yumi wok long operesen be ansa o total bae i semak nomo oltaem

Not blong Tija: Yumi yusum nomo ol namba wetem smol blong eksplenem konsep blong ademap long ol studen. Taem ol studen blong yu oli kasem gud konsep blong ademap yu save stat blong askem olgeta blong wok long ol namba we oli bigfala moa.

Aktiviti 9: Ademap ol wanwan dijit

Eksplenem long ol studen hao blong wokem olgeta operesen ia mo letem oli wokem insaed long eksasaes buk blong olgeta:

$$4 + 7 = \underline{\quad} \quad 3 + 6 = \underline{\quad} \quad 5 + 8 = \underline{\quad} \quad 6 + 5 = \underline{\quad}$$

$$7 + 4 = \underline{\quad} \quad 6 + 3 = \underline{\quad} \quad 8 + 5 = \underline{\quad} \quad 5 + 6 = \underline{\quad}$$

Askem ol studen blong oli wok long grup blong 4. Oli wokem samfala operesen olsem ia, afta givim long narafala grup blong faenem total blong olgeta. Afta tufala grup i jekem ol ansa tugeta.

Aktiviti 10: Ikwel total blong ol defren grup

Putum 8 objek olsem ston, lid blong botel o Yunifiks Kiub long wanwan tebol. Mekem ol studen oli raetem namba blong ol objek ia long slet blong olgeta. Askem ol studen blong oli putum ol objek ia long 2 grup, olsem oli wantem. Ol studen oli raetem daon namba blong wanwan grup blong mekem wan operesen blong ademap.

Eksampol:

$$5 + 3 = 8 \quad 6 + 2 = 8$$

Wanwan grup i go prisentem wok blong hem long bod. Helpem olgeta blong faenem evri wei blong mekem 8.

Nao, droem wan grup blong 12 kros long bod mo askem long ol studen oli putum ol kros long 2 grup, olsem oli wantem olsem:

$$10 + 2 = 12 \quad 8 + 4 = 12$$

Raetem ol ansa blong ol studen long bod mo helpem oli faenem evri operesen blong mekem 12 we ol studen oli no faenem. Hem i impoten se ol namba long tufala saed i defren be total bae ikwel (semak) long narafala.

Mekem semak aktiviti wetem ol defren objek mo defren total namba.

Aktiviti 12: Kaontem folem laen

Droem wan tebol olsem:

291	292	293	294	295	296	297	298	299	300	301	302
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

$$293 + \underline{\quad} = 297$$

Askem long ol studen olsem: Sapos yu stap long namba 293 bokis mo traem blong kasem namba seven bokis, hamas bokis nao yu mas mov ova long hem?

Askem plante moa kwesten folem semfala fasin we yu mekem praktis long hem. Askem ols tuden blong oli wok long ol smol grup blong olgeta mo oli tokbaot gud. Afta oli mekem samfala moa insaed long ol buk o slet blong olgeta.

I givhan bigwan blong ol studen taem yu mekem oli ripitim aktiviti ia plante taem. Yu save yusum daes tu blong plei wetem. Mekemsua se yu stap insaed long wan bokis bifo sakem daes. Taem daes i some wanem namba, yu muv folem namaba ia nao o yu ademap namba we i stap blong kasem niufala namb

Aktiviti 13: Defdefren operesen, semak total

Givhan long ol studen blong oli mekem semak aktiviti olsem we oli mekem long Aktiviti 10 be naoia oli traem blong faenem 3 o 4 defren grup we bae i givim ikwel (semak) total.

Eksampol:

$5 + 1 + 8 = 4 + 7 + 3$
 $5 + 2 + 9 = 6 + 3 + 7$
 $9 + 3 + 5 = 8 + 7 + 2$

Yu save mekem plante moa blong ol studen i wok long olgeta. Taem we ol studen oli kasem gud, yu save stat blong leftemap namba blong ol grup mo tu leftemap namaba blong ol objek o olgeta dijit we oli stap wok long hem.

Aktiviti 14: Ademap ol 2-dijit mo 1-dijit namba long laen

Hemia samfala aktiviti bakegen we ol studen oli save stap praktisim blong leftemap save blong olgeta long konsep blong ademap 2-dijit namba wetem 1-dijit namba. Hem i impoten blong yu rivaesem oltaem ol kaen wok olsem wetem ol studen afta yu askem olgeta blong oli wok long ol slet o ol buk blong olgeta.

$12 + 3 = \underline{\quad}$
 $3 + 75 = \underline{\quad}$
 $52 + 7 = \underline{\quad}$
 $93 + 5 = \underline{\quad}$
 $80 + 6 = \underline{\quad}$
 $61 + 5 = \underline{\quad}$
 $72 + 6 = \underline{\quad}$

Aktiviti 15: Yusum operesen tebol blong ademap

Eksplenem gud o rivaesem gud fasin blong wok wetem ol tebol olsem ia wetem ol studen bifo yu lego olgeta i wok long ol smolsmol grup blong komplitim olgeta mo tu wok long ol slet o buk blong olgeta.

+7	2	6	8	4
51	55
91

Yu save askem long ol studen blong yusum tebol blong ademap we i stap long wol blong klasrum blong i givhan long olgeta blong mekem ademap.

Aktiviti 16: Ademap ol tri defren namba o tri deferen grup blong ol aetem

Talem stori ia long ol studen mo sem taem putum ol namba long bod blong i givhan long ol studen blong wokemaot problem we i stap long stori:

“Wan mama i sidaon long wan smol stul blong maket. Daon long wan mat i gat: 5 manggo, 3 banana mo 7 aranis.

Askem long ol studen oli raetemaot operesen we storian ia i givim mo faenem ansa blong hem.

Bae yu ekspektem ansa olsem :

$$5 \text{ mango} + 3 \text{ banana} + 7 \text{ aranis} = 15 \text{ frut evriwan}$$

Talem olgeta se sapos we i no stap long oda ia be ansa blong hem i mas semak oltaem, 15 frut evriwan.

$$5 + 3 + 7$$

↓

$$(5 + 3) + 7$$

↓

$$(3 + 7) + 5$$

Mekem plante moa stori olsem mo askem long ol studen oli wokemaot problem we i stap insaed long stori mo wokemaot ansa blong hem long slet o buk blong olgeta.

Aktiviti 17: Ademap 2-2 yusum aro

Eksplenem gud long ol studen se wanem we oli stap mekem yumi save mekem i kam isi moa taem yumi wok long wan set fastaem afta muv i go long narafala set olsem:

$$4 + 2 + 3$$

↓ ↓

$$6 + 3$$

↓

$$9$$

$$3 + 4 + 2$$

↓ ↓

$$\dots + \dots$$

↓

$$\dots$$

Faenem mo wokem samfala moa aktiviti olsem blong ol studen oli wok long hem long ol slet o buk blong olgeta.

Aktiviti 18: Yusum brakel blong ademap ol 3 namba

Eksplenem long ol studen se oli save yusum brakel () tu blong givhan long olgeta blong mekem ademap we i gat trifala defren namba i kam isi moa.

Letem ol studen oli save se long plante stori o plante operesen i nogat brakel be olgeta i mas putum brakel long ples we bae i givhan long olgeta.

Hem i samfala eksampol we yu save yusum blong givhan long ol studen:

$$(2 + 7) + 3 = 2 + (7 + 3)$$

$$2 + (7 + 3) = (2 + 7) + 3$$

Mekem plante moa blong ol studen oli wok long olgeta long ol slet o ol buk blong olgeta.

Taem ol studen oli kasem gud hao nao yumi wok wetem brakel yu save wok wetem olgeta long samfala we bae i kam had moa olsem olgeta ia:

$$(8 + 5) + 2 = 8 + (\underline{\quad} + \underline{\quad})$$

$$11 + (5 + 4) = (\underline{\quad} + \underline{\quad}) + 4$$

$$(9 + 8) + 3 = \underline{\hspace{2cm}}$$

$$7 + (4 + 2) = (\underline{\quad} + \underline{\quad}) + \underline{\quad}$$

Aktiviti 19: Yusum 10 blong ademap kwik ol operesen wetem tri namba

Eksplenem long ol studen se yumi save yusum bes (faondesem) 10 blong wokem ol operesen wetem tri defren namba

Raetem long bod operesen ia:

$$6 + 3 + 4$$

Eksplenem long ol studen se oli mas fastaem faenem tufala namba we tugeta oli mekem 10, olsem long operesen ia, i gat 6 mo 4:

$$6 + 4 = 10$$

Afta yumi ademap las namba (3):

$$10 + 3 = 13$$

$$6 + 3 + 4 = 13$$

Raetem ol operesen ia long bod mo askem ol studen oli praktisim mo kasem gud fasin blong yusum namba 10 blong mekem operesen i kwik:

$$8 + 7 + 2 = \underline{\quad} \quad 4 + 9 + 6 = \underline{\quad} \quad 7 + 5 + 3 = \underline{\quad}$$

$$10 + 5 + 0 = \underline{\quad} \quad 9 + 8 + 1 = \underline{\quad} \quad 5 + 5 + 7 = \underline{\quad}$$

Aktiviti 20: Narafala wei blong yusum 10 blong ademap hariap

Eksplenem se hemia tu hem i wan narafala wei blong wok wetem 10 blong mekem operesen blong ademap i kam moa kwik.

Raetem long bod operesen ia: $8 + 6$

Talem long ol studen se yumi evri wan i save se: $8 + 2 = 10$

Afta, tekemaot 2 long 6: $6 - 2 = 4$

Ademap 4 we yu gat yet mo 10:

$$10 + 4 = 14$$

Taem wen ol studen oli kasem gud tingting ia, oli save praktisim yusum ol operesen ia:

$$5 + 9 \quad 8 + 5 \quad 9 + 6 \quad 8 + 8 \quad 4 + 7 \quad 6 + 8$$

Aktiviti 21: Storian wetem tri namba operesen

Givim trifala namba ia long ol studen: 4, 2, 3.

Divaedem ol studen i go long ol smolsmol grup mo askem olgeta blong oli diskasem mo mekem ol stori wetem trifala namba ia mo krietem wan situesen insaed. Oli save droem situesen ia o oli save kipim nomo i stap insaed klong stori. Taem we stori o situesen blong olgeta i redi, oli givim o askem narafala grup blong traem wokemaot situesen we i stap insaed mo solvem o faenem ansa.

Eksampol:

Kalsal i wantem se famle blong hem bae i kakae eg long sapa. Taem hem i lukluk long kabod long kijin hem i faenem se i gat 2 egg nomo i stap.

Hem i talem se, "O hemia i no inaf ia, mi mas go long fanis blong faol."

Insaed long fanis blong faol hem i faenem 4 eg.

Kalsal i talem se, "Oh mi laki blong faenem olgeta ia be i no inaf yet."

Hem i karem sam vatu mo go long stoa mo pem 3 eg moa. "Naolia nao i jas inaf stret nao long famle blong mi. Bae mifala i kakae wan eg wanwan."

Askem long ol studen:

- ◆ Hamas eg nao i stap long kabod?
- ◆ Hamas eg nao i stap long fanis blong faol?
- ◆ Kalsal i pem hamas egg long sto?
- ◆ Kalsal i gat hamas eg evriwan?
- ◆ Hamas pipol insaed long famle blong Kalsal? (Kwesten ia we i had lelebet)

Yu save jenisim ol namba ia o yu save askem ol studen blong oli jusum samfala narafala namba blong mekem praktis long olgeta.

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ talem se yumi mekem ademap long ol situesen blong laef?
- ◆ yusum saen +?
- ◆ faenem total blong 2 grup mo 3 grup we yumi putum tugeta?
- ◆ kalkuletem operesen ademap blong tri namba?
- ◆ droem ol pija long wan namba storian blong olgeta?
- ◆ yusum ol konkrit materiel blong helpem olgeta blong faenem ol ansa blong ol operesen?

Oportuniti blong Asesmen

Ol studen oli krietem ol stori we i gat operesen blong ademap insaed long hem. Oli harem, ridim, andastanem mo intepretem ol situesen insaed long ol stori mo solvem o faenem ansa long ol situesen we oli kamaot long ol stori.

Tem 1, Wik 8

Ol Sab-stran: 1. Taem 2. Probabiliti

1. Taem

Lening Aotkam: MT.3.V1 – Luksave mo andastanem ol yunit blong taem yusum kalenda mo 12 aoa klok (analog)

Fokas blong ol Aktiviti: Lukluk long kalenda mo klok

Ol Risos: Ol defdefren klok, ol defdefren kalenda

Vokabulari: Simesta, tem, dijital klok (we i nogat ol han), analog klok (we i gat ol han), kalenda, manis, dei, deit

Ol Lening Aktiviti

Aktiviti 1: Sado blong san mo aoa blong klok

Not blong Tija: Aktiviti ia i save tekem ples long taem blong dei we i no taem blong Matematik yet.

Talem long ol studen se naoia hem i 8 klok. Letem ol studen blong oli lukluk klok blong konfemen. Longfala han i stap long 12 mo sotfala han i stap long 8.

Askem ol studen blong oli go aotsaed lukluk posisen blong san mo sado blong ol ting we oli stap long graon. Yusum wan samting blong makem en blong sado long hem mo go bak insaed long klasrum.

Talem long ol studen se naoia hem i 11 klok. Letem ol studen blong oli lukluk klok blong konfemen. Longfala han i stap long 12 mo sotfala han i stap long 11.

Askem ol studen blong go aotsaed bakegen mo jekem posisen blong san afta jekem en blong sado bakegen wetem mak we oli bin putum.

Gaedem ol studen long diskasen blong posisen blong san mo from wanem sado i stap kam sot. Givim plante janis blong ol studen oli talem tingting blong olgeta long wanem we i stap hapen.

Eksplenem long ol studen se, long moning taem we san i stap kam antap hem i saenem ol tri o ol post mekem se sed o blong olgeta i longfala i go, be taem we san i stat blong kam antap mo klosap i stret long hed blong yumi antap sado i stap kam shot.

Eksplenem long olgeta tu se taem we san i stat blong go daon, bae semfala samting i hapen bakegen be naoia sado bae i longfala i kam bak long narasaed from san i bitim yumi i stap go daon long narasaed bakegen. Letem ol studen oli save se long defdefren aoa san i stap long deferen posisen mo tu sed blong ol ting long graon oli stap long ol defderen ples tu.

Ativiti 2: Kalenda mo betdei

Bifo long lesen ia, askem long ol studen oli karem samfala kaen kalenda we oli faenem long haos i kam long skul. Yu tu yu mas karem samfala kalenda i kam long skul blong soem long ol studen.

Divaedem ol studen i go long ol smolsmol grup mo askem olgeta blong tokbaot ol kalenda we oli gat wetem olgeta. Askem olgeta blong serem wetem fulklas wanem wanem kaen kalenda nao olgeta oli gat mo oli yusum long wanem.

Eksplenem long ol studen se kalenda hem i wan dokumen we i givhan long ol pipol blong mekem ol plan mo tu blong givhan long man blong save rikodem mo tingabaot wanem we i hapen long bifo. Kalenda nao hem i givhan long yumi blong save se wan dei hem i wan det we i defren long evri narafala dei.

Eksampol:

Namba 1 Januare 2017 hem i kam wan taem nomo mo bae i neva kam bak bakegen. Nekis Namba 1 Januare bae hem i 2018.

Naoia yu askem ol studen blong oli katem ol pepa i go long ol sep blong kek mo oli raetem ol betdei blong olgeta long hem. Givhan long olgeta blong arenhem olgeta i go long ol smolsmol grup blong manis, Januare kasem Disemba folem betdei blong olgeta.

Askem olgeta long okl smolsmol grup blong olgeta blong arenhem olgeta bakegen stat long det we i smol go kasem en blong manis afta yu givhan long olgeta blong mekem displei.

Aktiviti 3: Program blong wan dei

Eksplenem long ol studen se long wanwan dei long skul stat long Mande kasem Fraede yumi gat ol defdefren aktiviti we oli stap tekem ples insaed long klasrum.

Divaedem ol studen i go long 5 grup folem ol dei, Mande kasem Fraede, mo askem olgeta blong yusum taemtebol blong klas blong ripotem wanem we i stap hapen long wanwan dei. Afta, givim taem long olgeta blong oli mekem presentesen long fulklas.

Askem long ol studen samfala kweten olsem blong mekem diskasen blong fulklas:

- ◆ Program blong wanem dei nao yufala wanwan i laekem tumas? From wanem?
- ◆ Wanem taem nao long wanwan dei we yu laekem bitim ol narafala taem?
- ◆ From wanem yumi mas raetem det evri dei yumi statem ol wok blong yumi long skul?

Yu save faenem samfala kwesten moa blong givhan long ol studen blong andastanem gud ol defdefren taem blong dei, ol ivent we oli hapen mo hamas taem oli hapen blong olgeta.

Not blong Tija: Hem i impoten se taem ol studen oli ripotem program i mas gat ol taem i stap wetem blong oli save luk duresen (duration) blong ol defdefren aktiviti.

Sapos ol studen oli kasem gud long wok ia yu save askem olgeta blong praktisim tu long program blong wanwan dei long vilej o komyuniti blong olgeta. Antap long hemia oli save mekem program blong wan iven we oli mekemap nomo olsem wan miting o wan lafet.

Afta, askem ol studen blong talemaot wijwan dei we oli priferem mo from wanem.

Aktiviti 4: Ol instramen blong taem

Eksplenem long ol studen se long wol blong yumi tede yumi save faenem o ridim taem long plante samting.

Divaedem ol studen i go long ol smolsmol grup mo givim olgeta ol big bigfala pepa mo askem olgeta blong mekem wan list mo droem pija blong samfala instramen we yumi save yusum blong faenem wanem taem o ridim taem blong dei.

Letem ol studen oli diskas long ol smolsmol grup blong olgeta mo mekem list blong olgeta. Taem we oli finisim wok blong olgeta givim taem long olgeta blong mekem wan presentesen i go long fulklas.

Bae yu ekspektem ol ansa olsem; klok, redio, hanwaj, alam klok, kompiuta, laptop, mobaelfon, trak redio.

Aktiviti 5: Standed materiel blong taem

Karem pija blong defren kaen klok i kam long klas mo prisentem long klas.

Tokbaot dijital klok, analog klok mo 12 aoa klok wetem ol studen. Ol studen oli diskraebem ol defren pat blong klok, olsem:

- ◆ Bigfala han i soem ol aoa.
- ◆ Yu save ridim 1 kasem 12 aoa.
- ◆ Smol han i soem ol minit.
- ◆ Ol mak we i gat long skrin, sam i bigifala, sam i smol.

Ol Kwesten blong Asesmen

- ◆ raetem mo luksave ol dei blong wik?
- ◆ las yia, ol yia we i pas, yia blong tedei, nekis yia mo yia we i stap kam...?
- ◆ talem wijwan aktiviti oli stap mekem long wan dei?
- ◆ tokbaot ol aktiviti we oli mekem long ol defren taem long dei?
- ◆ 2 standed materiel blong ridim taem?

Oportuniti blong Asesmen

Askem ol studen blong raetem wan plan blong dei blong olgeta.

2. Probabiliti

Lening Aotkam: CPD.3.V1 – Aedentifaem, putum long grup mo diskraebem ol ivent we oli tekples long evridei laef long fasin blong “janis”

Fokas blong ol Aktiviti: Tingting blong mekem prediksen

Ol Risos: Daes, ol plei kad, ol koen

Vokabulari: Oltaem, neva, i gat janis, i nogat janis, samtaem, i tru, i sua, rili, i hapen, i no hapen

Ol Lening Aktiviti

Aktiviti 6: Prediktem samting hem i wanem?

Tokabaot wetem klas wanem mining blong prediktem samting. Askem long ol studen sapos oli harem toktok ia finis mo wea?

Eksampol:

Meteo i prediktem san o ren.

Mining blong prediktem i samfala taem i hapen o no.

Aktiviti 7: Tokbaot ol klaod

Tekem ol studen oli go aotsaed long klasrum. Ol studen oli watjem weta: oli lukluk skae mo luk ol klaod, san, o eni saen long envaeromen blong olgeta.

Storian wetem olgeta abaot gud o bad saen blong weta we oli lukim aotsaed.

Askem long wanwan studen, “Wanem weta tedei? Yu luk ol klaod? Wanem kala blong olgeta? Hem i minim se bae i ren? Yu ting se bae i ren long tedei aftanun? From wanem yu ting se bae i ren long aftanun?”

Tekem not long ol studen we oli faenem i had blong lukluk blong diskraebem weta long olgeta.

Aktiviti 8: Tokbaot san

Ripitim semak aktiviti olsem Aktiviti 8.

Mekem wanwan studen i tokbaot obsevesen blong hem. Enkarejem olgeta blong yusum ol vokabulari ia taem oli diskraebem weta: i gat janis, i sua, i nogat janis.

Eksampol:

- ◆ Mi sua, bae sun i no save saen tedei from ol bigfala dak klaod i kavremap skae.
- ◆ I nogat janis blong san i saen from dak klaod i kavremap skae.

Aktiviti 9: Tokbaot weta tede mo tumoro

Putum ol studen long grup blong 2 studen. Askem olgeta blong tokbaot wanem oli luk long weta. Letem olgeta i talem abaot weta long nekis 2 o 3 aoa we bae kam mo weta blong tumoro.

Oli sud yusum lanwis blong prediksen taem oli toktok, olsem, “I gat janis, i sua, i nogat janis...”

Eksampol:

- ◆ Mi sua se bae gat win long aftanun from ol lif oli muvmuv.
- ◆ I nogat janis blong san i saen from dak klaod i kamaot long skae.
- ◆ I gat janis blong i ren long naet from hem i sisen (taem) blong hem.

Givhan long ol studen blong mekem ol toktok blong olgeta mo enkarejem evriwan blong tekpat long aktiviti ia.

Aktiviti 10: Prediktem ol narafala ivent long laef

Tokabaot samfala ivent long evridei laef olsem: spot aktiviti, ol trip aktiviti o ol narafala ivent.

Talem olsem wanem bae oli ivent ia i hapen long fuja.

Ol studen oli mas mekem prediksen yusum ol toktok ia: i save hapen, i sua bae i hapen, i nogat janis blong i hapen.

Eksampol:

- ◆ Sip bae i kam let long Port Vila, from hemiaot let yestedei long Tanna.
Ansa: i save hapen.
- ◆ I nogat skul long aftanun from tija bae i gat wan miting.
Ansa: i sua bae i hapen.
- ◆ I nogat janis blong gem bitwin ol provens i tekples nekis yia from i nogat mani.
Ansa: i nogat janis blong i hapen.
- ◆ San bae i kam antap let lelebet from naet i long.
Ansa: i sua bae i hapen.

Aktiviti 11: Prediksen, Janis

Eksplenem janis long ol studen. Talem long ol studen se toktok we bae yumi yusum hem i prediksen. Prediksen hem i wan toktok blong talem long yumi wanem nao tingting blong yu long janis blong wan samting blong i hapen. Ol toktok blong prediksen: i save hapen, i no save hapen, sua se bae i hapen, i nogat janis blong i hapen, bae i neva, i maet, mo samfala moa.

Talem long ol studen ol smol stori ia mo askem blong mekem prediksen long wanem nao oli ting se bae i hapen.

- ◆ Ol honet oli putum bed blong olgeta insaed long gras, wanem nao janis blong wan saeklon i kasem yumi?
- ◆ Long taem bklong sanset, skae i red we i red, wanem nao janis blong san i strong tumoro?
- ◆ Ol tri blong manggo oli putum plante frut we i bitim mak, wanem nao janis blong saeklon i kasem yumi?
- ◆ Setri i mestem skul tumas, wanem nao janis blong hem i winim eksam blong hem?
- ◆ Kalkot i kakae tumas evridei, wanem nao janis blong hem i kam wan fatfat boe?
- ◆ Wanem nao janis blong tumoro bae i no save gat deilaet?
- ◆ Lukluk antap long skae, wanme nao janis blong ren i ren tedei?

Yu save mekem samfala moa mo askem ol studen blong oli mekem prediksen blong hem. Givhan long ol studen blong oli save mekem samfala eksasaes olsem mo askem long ol fren blong olgeta blong oli mekem prediksen long hem.

Not blong Tija: Prediksen hem i wan impoten skil we ol pipol oli yusum blong mekem gud ol plan blong olgeta. Taem yu nogat gudfala skil blong prediksen bae hem i had blong yu save mekem gud plan mo tu samtaem yu save mekem ol plan we bae oli no wok aot. Prediksen hem i save givhan long yu tu blong yu rere long taem blong saeklon mo ol narafala disata.

Aktiviti 12: Gem blong prediksen mo janis

Givim sam moa janis long ol studen blong oli kontinu blong praktis long janis mo prediksen. Letem olgeta i plei long gem blong daes, koen mo kad.

Eksplenem long olgeta se daes i gat 6 saed long hem mo evri taem wan i wantem rolem, hem i gat 1 aot long 6 janis blong daes i givim namba we hem i wantem.

Eksplenem long olgeta tu se koen i gat 2 saed long hem, i gat tel mo hed. Taem yumi sakem koen, yumi gat wan aot long 2 janis blong koen i givim saed we yumi wantem.

Eksplenem long ol studen tu se taem yumi plei pulum kad mo ges o prediktem nem blong hem mo, janis blong jusum stret kad i depen plante long hams kad yumi serem. Janis i kam bigwan taem namba blong kad i smol be janis i kam smol taem namba blong kad i bigwan.

Eksampol:

Sapos we yu holem 10 kad long han blong yu mo askem fren blong yu blong pulumaot wan kad long han blong yu we hem i King Hat, janis blong pulum stret kad ia hem i smol nomo from yu gat 10 kad.

Be sapos yu gat 3 kad nomo long han blong yu mo askem long fren blong yu blong pulum Misim Daeman, janis blong hem i pulum stret kad i kam bigwan from i gat 3 kad nomo.

Divaedem ol studen i go long ol smolsmol grup mo letem olgeta oli pleplei ol gem blong prediksen mo janis.

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ wanem ia prediktem wan samting?
- ◆ yusum ol toktok blong ol prediksen blong olgeta, olsem “i save hapen, bae i hapen, bae i neva hapen”?
- ◆ givim wan prediksen long fored blong ol narafala studen long klas?
- ◆ prediktem janis long wan gem?
- ◆ prediktem long weta blong wan dei?
- ◆ prediktem ivent blong laef blong olgeta?

Opotuniti blong Asesmen

Ol studen oli soem save blong prediksen, olsem, oli prediktem wanem i save hapen long ol plant afta wan drae sisen; oli prediktem mak blong sado blong wan tri blong kokonas long 8 klok long moning, 12 klok long medel dei mo 3 klok aftanun; mo prediktem hamas janis nao wan studen i gat blong talem se daes bae i givim namba 5 taem yumi rolem.

Tem 1, Wik 9

Ol Sab-stran: 1. Mani 2. Handelem Data

1. Mani

Lening Aotkam: MM.3.V1 – Yusum ol koen o smol mani mo ol pepa mani blong solvem ol isi problem

Fokas blong ol Aktiviti: Valiu blong pepa mani mo ol koen

Ol Risos: Ol koen mo ol kopi blong ol pepa mani (luk long **Apendiks** blong Tija Gaed blong Matematik Yia 2)

Vokabulari: Vatu, pepa mani, wan hundred, faev hundred, wan taosan vatu, tu taosan vatu, mo samfala moa

Ol Lening Aktiviti

Aktiviti 1: Tokbaot Mani

Mekem diskasen wetem ol studen long wanem nao i stap long ples blong mani long taem bifo long ol aelan blong yumi.

Long taem we inogat mani yet wanem nao ol pipol i yusum blong pem ol ting long ol narafala pipol. Hem i impoten blong ol studen i save se fasin blong pem ol ting bifo i stap finis, mani i jes kam nomo long yumi blong riplesem samting ia be praktis ia i stap semak nomo.

Eksampol:

Bifo ol man long solwota oli karem fis i go antap long bus blong pem ol aeklan kakae. Long samfala pkles oli yusum ol Pig blong pem ol mat we ol mama oli wivim.

Yu olsem tija yu save tingabaot samfala eksampol moa.

Not blong tija: Ol studen oli givim ansa folem konteks blong aelan blong olgeta.

Aktiviti 2: Nem blong ol mani

Askem ol studen blong talem long yu nem blong ol mani we oli save, olsem 1000 vatu, 20 vatu, mo samfala moa. Helpem oli givim nem blong ol mani blong Vanuatu mo raetem long bod.

Afta, askem studen blong talem se wijwan i gat mani long koen mo i gat mani long pepa mani.

Aktiviti 3: Saes, hevi mo kwaliti mo valiu blong mani

Karem samfala sampol blong ol vatu i kam long klasrum samfala we oli pepa o kopi nomo be samfala ol ril mani blong ol studen oli lukluk mo mekem diskasen long hem.

Samfala kwesten blong givhan long diskasen:

- ◆ Wanem kala blong ol defdefren koen blong 5, 10, 20, 50 mo 100 vatu?
- ◆ Wanem nao ol pija we oli stap long ol defdefren koen?
- ◆ Wanem nao hem i semak long evri koen?
- ◆ Wanem nao ol pkja we oli stap long defdefren pepa mani blong 200, 500, 1000, 2000, 5000 mo 10,000 vatu?
- ◆ Wanem nao ol kala blong ol defderen pepa mani?

Askem ol studen blong tresem tel blong ol koen insaed long eksasaes buk blong olgeta mo raetem valiu blong olgeta i klia gud.

Aktiviti 4: Koen o Pepa

Mekem kopi blong tebol ia mo givimaot long ol studen. Sapos yu mekem ol smolsmol kopi givim wanwan long ol studen be sapos we yu mekem ol bigbigfala kopi divaedem ol studen oli go long ol smolsmol grup mo givim wanwan long olgeta. Sapos yu no gat ol kopi yu save droem nomo long bod o putum wan bigfala jat nomo mo askem ol studen oli kopi i go insaed long eksasaes buk blong olgeta fastaem bifo aktiviti i stat.

Mani i gat:	Koen	Pepa mani	Valiu
Nanggol, man i kilim tamtam, mask			
Krab kokonas			
Navara, kava			
Aelen kakae, buluk, bubu sel			

Ridim deskripsen blong ol mani long tebol ia. Ol studen oli mas putum wan tik insaed bokis sapos oli ting se hem i wan pepa mani o koen. Askem ol studen blong raetem valiu o nem blong mani ia insaed long las bokis klong raed saed.

Not blong Tija: Yu save mekem samfala moa blong ol studen oli wok moa long hem blong kasem gud valiu blong wanwan koen mo pepa mani mo ol spesel mak we oli stap long hem o pija we oli stap long hem.

Givim samfala mo deskripsen abaot ol narafala koen o not mo ol studen oli mas ges wijwan hemia.

Yu save putum ol studen oli go tutu mo wan i diskraebem wan mani mo narafala i ges long nem mo valiu blong mani ia.

Aktiviti 5: Valiu blong moa long wan koen

Long aktiviti ia bae yu wok wetem fulklas. Givim ol slet long ol studen mo askem olgeta blong oli rere blong wokemaot valiu blong vatu long stori we bae yu some long olgeta.

Putum ol situesen ia long wan bigfala jat mo putum antap long bod wanwan. Askem ol studen blong oli lukluk gud afta raetem valiu blong mani long slet blong olgeta mo leftemap blong yu luk.

Eksampol:

- ◆ Maria i gat wan koen blong 50vt, mo wan koen blong 100vt. Wijwan i gat moa valiu? Wanem nao valiu blong tufala koen ia?
- ◆ Kalomuana i gat wan 20vt koen, wan 5vt koen mo wan 10vt koen. Wanem nao total valiu blong trifala koen ia?
- ◆ Sapai hem i gat wan koen blong 100vt mo wan koen blong 5vt. Wanem valiu blong ol mani we hem i gat?
- ◆ Rovo hem i gat wan koen blong 20vt, wan koen blong 5vt mo wan koen blong 50vt. Wanem nao valiu blong evri koen we hem i gat?

Aktiviti 6: Brekemdaon ol koen

Soemaot koen blong 50 vatu.

Talem long ol studen se, “Mi wantem brekemdaon mani ia long sam narafala koen we i mekem semak valiu.”

Askem ol studen blong givim evri posibol ansa blong olgeta mo raetem long bod. Luklukgud long evriwan.

Talem ol studen “Hemia nao, yumi dikomposem 50: 20vt koen wetem 20vt koen wetem 10vt koen, oli mekemap 50 vatu.”

“Wan narafala wei: 20vt koen wetem 20vt koen wetem 5vt koen wetem 5vt koen.”



Mekem semak wetem ol narafala amaon.

Talem se, “Mi nidim 100vt. Blong mekem amaon ia mi nidim hamas koen blong 10vt? 20vt? 50 vt? 5vt?”

Ol studen oli mas fulumap tebol ia:

Amaon	10vt	20vt	50vt	5vt
100 vt				

Afta, mekem semak wetem ol narafala amaon.

Aktiviti 7: Mekemap praes

Ol studen oli wok long smolsmol grup. Tugeta tokbaot wanem koen o pepa mani yu save nidim blong pem wanwan aetem we i stap long tebol ia.

Askem ol studen blong kopi tebol mo tikim ol bokis o raetem hamas koen oli nidim blong mekemap praes blong aetem. Oli save mekemap sam narafala aetem blong pem tu

	5vt	10vt	20vt	50vt	100vt	200vt
Raes 170vt						
Tin mit 220vt						
Anian 55vt						

Afta, ol grup olu prisentem mo komperem ol ansa blong olgeta wetem ol nara grup.

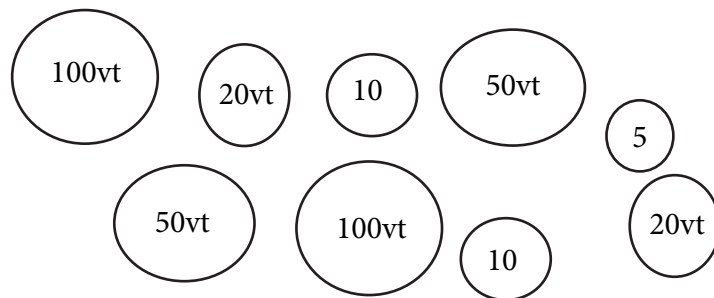
Tugeta, rikodem long bod ol posibiliti blong mekemap praes blong wanwan aetem. Givhan blong olgeta blong faenem evri posibiliti we oli no faenem finis.

Aktiviti 8: Amaon blong mani

Talem long ol studen se, “Long poket blong yu i gat: 3 koen blong 5vt, 1 koen blong 10vt, 1 koen blong 20vt mo 1 koen blong 50vt? Wanem total amaon blong mani nao yu gat?”

Ol studen oli ademap ol mani ia.

Afta, droem ol koen ia long bod mo askem olgeta “Wijwan nao bae yu tekem blong mekem 85vt?”



Ol studen oli jusum ol koen wanwan, afta askem sam studen blong talem hao oli bin mekemap 85vt.

Aktiviti 9: Mani long maket

Talem long ol studen storian ia: “Blong pem 200vt Tom i givim finis: 1 koen blong 100vt, wan koen blong 50vt, wan koen blong 20vt, wan koen blong 10 vt mo wan koen blong 10 vt. Mani we hem i givim i stret? Sapos no, hem i mas mekem wanem? Hamas mo hem i mas givim?”

Askem ol studen blong raetemdaon o droem stori ia mo kalkuletem ansa.

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ luksave defren koen?
- ◆ luksave defren pepa mani 200vt kasem 1000vt?
- ◆ luksave defrens bitwin koen mo pepa mani?
- ◆ kalkuletem smol hip blong mani?
- ◆ jusum koen blong mekem wan amaon blong mani?
- ◆ yusum not blong mekem wan amaon blong mani?

Opotuniti blong Asesmen:

Wan bag kumala i 300vt. Askem ol studen blong raetemdaon stret mani we bae yu nidim blong pem bag kumala ia.

2. Handelem data

Lening Aotkam: CDH.3.V1 – Kolektem, putum long wan oda, tokbaot mo save talemaot wanem infomesen i minim long ol deren wei

Fokas blong Aktiviti: Ridim ol tebol

Ol Risos: Ol tebol mo jat we i stap insaed long klasrum finis, ol kopi blong ol tebol blong ol aktiviti ia

Vokabulari: Infomesen, data, tebol, laen, kolom

Ol Lening Aktiviti

Aktiviti 10: Wanem ia wan tebol?

Askem long ol studen “Wanem ia wan ‘tebol’ long lanwis blong matematik?”

Askem olgeta blong soem sam sampol blong tebol we i gat insaed long klasrum olsem taemtebol, kalenda, program blong klinap, list blong ol studen, pyramid blong ol ej, list blong ol singsing mo poem, program blong skul tem mo skul yia, mo samfala moa.

Jusum wan tebol mo askem long olgeta, “Wanem nao i gat insaed long ol tebol ia?”

Enkrajem blong yusum ol toktok olsem, “Tebol i gat infomesen abaot samfala samting...”

Afta, ol studen oli stap long grup. Wanwan grup i jusum wan tebol blong klasrum mo tokabaot wanem infomesen hem i stap insaed long evriwan.

Not blong Tija: Aktiviti ia i save link wetem Lanwis mo Komyunikesen.

Aktiviti 11: Tokbaot ol tebol

Askem ol studen blong lukaotem samfala tebol long envaeromen blong olgeta. Afta, oli kam prisentem long klas mo talem wanem infomesen i stap long ol tebol ia.

Askem olsem wanem oli mekem blong faenem infomesen we i stap insaed long wan tebol?

Alawem ol studen blong diskasem olgeta.

Talem long ol studen se, “Blong faenem infomesen long wan tebol, yumi save ridim folem laen, (horisontol) o folem kolom (vetikel).”

Afta, soem long klas wan tebol olsem tebol ia. Ol suden oli ridim mo talem olsem wanem oli ridim. Oli sud talem long yu oli stat long leftsaed i go long raetsaed folem laen. Talem long olgeta se, “Hem i horisontol.”

Materiel blong wan klas	
Eksasaes buk	25
Rula	18
Raba	30

Nao, soem olgeta tebol olsem tebol ia we yumi mas ridim long vetikel laen.

Namba blong frut blong wan resipi				
apol	banana	gorosol	pasenfrut	manggo
2	5	6	4	3

Askem long ol studen bakegen olsem wanem oli ridim tebol ia. Oli sud talem long yu, yumi stat antap i kam daon folem kolom.

Talem long olgeta, “Hem i vetikel.”

Aktiviti 12: Ridim tebol blong faenem infomesen

Kopi tebol ia long bod o pepa mo askem ol studen blong faenem infomesen yusum tebol ia.

Sam kwesten blong askem olgeta:

- ◆ Wanem tebol ia i talem yumi?
- ◆ Hamas studen blong Klas 2 i kakae lanj long Mande?
- ◆ Wijwan dei 14 studen blong Klas 3 i bin kakae lanj?

Ol studen we oli kakae long kantin			
Dei	Klas 1	Klas 2	Klas 3
Mande	5	9	12
Tusde	4	5	14
Tasde	7	9	11
Fraede	6	6	13

Aktiviti 13: Ridim tebol tufala wei

Kopi tebol ia long bod o pepa mo talem long ol studen se, hemia wan tebol abaot selsel long wan skul.

	Mande	Tusde	Wednesde	Tasde	Fraede	Total
Aranis	6	9	8	5	3	
Bred	2	4	3	4	6	
Gato	6	6	5	9	8	
Pinat	5	5	8	1	6	
Total						

Askem ol studen blong faenem infomesen long tebol ia. Sam kwesten blong askem olgeta:

- ◆ Hamas aranis oli salem long wan wik?
- ◆ Hamas gatowit oli salem long Tasde?
- ◆ Wanem dei nao oli salem moa gato?

Aktiviti 15: Putum infomesen long tebol

Askem ol studen blong talemaot evri samting we oli save aboat ol dolfin, olsem:

- ◆ Dolfin hem i wan mamol
- ◆ Bigwan blong hem i kasem 3m
- ◆ Weit blong hem i kasem 100kg
- ◆ Longfala blong laef long hem i save go kasem 50 yia

Not blong tija: Yu save faenem plante moa infomesen blong ol dolfin long posta blong Yia 2, *Wanem ia Dolfin*.

Askem long ol studen blong putum ol infomesen blong dolfin i go insaed wan tebol. Ol studen oli komplitim ol tebol long smolsmol grup. Afta, oli presentem ol tebol blong olgeta.

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ wanem ia wan tebol?
- ◆ yus blong wan tebol?
- ◆ ridim long horisontol mo vetikel wei blong faenem infomesen?
- ◆ ridim mo luksave ol simpol infomesen?
- ◆ putum gud oli nfomesen we olgeta i kolektem long wan tebol?
- ◆ mekem mo yusum ol tebol blong ripresentem infomesen we i kasem?

Oportuniti blong Asesmen

Givim wan simpol tebol long ol studen. Oli mas ridim mo talemaot wanem infomesen i stap insaed long tebol ia.

Tem 1, Wik 10

Ol Sab-stran: 1. Sep mo Anggel 2. Posisen mo spes

1. Sep mo Anggel

Lening Aotkam: GI.3.V1 – Diskraebem ol karakteristik (ol spesel mak) blong ol komon (we oli save gud) 2 mo 3 daemensen sep mo objek

Fokas blong ol Aktiviti: Ol karakteristik (spesel mak) blong ol 2D mo 3D sep

Ol Risos: Ol defren 2D sep mo 3D sep (luk long Numerasi Kit), ol bigfala skwea pepa, blong masis, bokis blong jok, 1 balong, kop blong paten blong mekem wan bokis (Apendiks 3)

Vokabulari: Raon, stret, saed, sekol mo anggel, simpol, 2D, 3D, solid, volium, emti spes, simetrik, laen blong simetri

Ol Lening Aktiviti

Aktiviti 1: Luklukbak long 2-daemensen Sep

Bifo long lesson priperem plante long ol plen sep i redi gud from lesen ia.

Askem ol studen blong lukluk raon long klasrum mo traem talem sapos oli lukluk samfala sep we oli save ol nem blong olgeta.

Askem olgeta wanwan blong leftemap han mo taem yu jusum olgeta bae oli some sep ia long ol fren blong olgeta mo eksplenem wanem sep nao oli bin faenem. Ol narafala studen i save traem blong luk mo oli save talem tu wea ples moa oli save faenem moa sep olsem long hem.

Eksampol:

Sep blong do, sep blong windo, sep blong tael long flo, sep blong flo, sep blong wol, ol sep antap long long siling o ol wud we i stap antap long klasrum.

Yu save givim janis tu long ol studen blong lukluk raon aotsaed long skul blong traem faenem ol sep we oli save gud nem blong olgeta.

Givim wanwan sep long evri studen insaed long klasrum blong yu mo askem olgeta blong oli mov raon mo faenem ol narafala we oli holem ol simila sep olsem blong olgeta mo oli mekem wan grup, olsem: sep we i 3 tri saed, sep we i gat 4 saed we longfala blong olgeta oli semak, sep we i gat 4 saed we 2 saed i sot mo 2 saed i longfala.

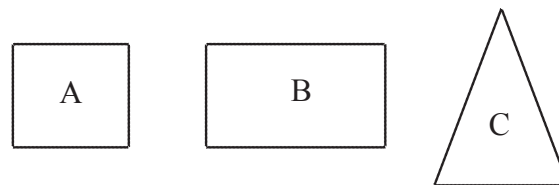
Askem ol studen blong wanwan grup blong eksplenem long ol fren blong olgeta from wanem nao oli bin go tugeta blong mekem wan grup. Fulklas i mekem diskasen wetem help blong yu. Askem long olgeta:

- ◆ Sep ia i gat hamas saed?
- ◆ Sep ia i gat hamas saed i longfala semak?
- ◆ Wanem nao hem i nem blong sep ia?
- ◆ Wanem pat blong klasrum ia nao yu save luk klosap i semak wetem sep ia?

Not blong Tija: Aktiviti ia yu save mekem long eni narafala sep we yu wantem blong introdusum o yu wantem blong rivaesem. Yu save mekem semak tu long ol solid sep.

Aktiviti 2: Skwea, rektangel mo traeeangel

Wetem Aktiviti 1 (Luklukbak long 2-daemensen Sep) we yufala i go tru long hem wetem ol studen bae aktiviti ia hem i isi nom blong ol studen oli kasem kwik taem.



Krietem ol bigbigfala sep blong trifala plen sep. Divaedem ol studen i go long tri grup mo givim wanwan sep long olgeta. Askem ol studen oli lukluk gud ol sep ia mo oli tokbaot ol karakteristik blong olgeta.

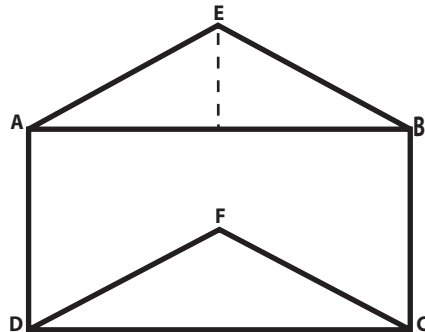
Afta long 10 minit visitim wanwan grup mo lisen long olgeta taem oli diskraebem ol sep blong olgeta. Askem olgeta blong oli raetem deskripsen blong olgeta long wan pis pepa mo putum i stap wetem sep blong olgeta long displei.

Askem wanwan grup blong mekem presentesen long ful klas mo askem evri studen blong kopi trifala sep insaed long ol eksasaes buk blong olgeta wetem ol deskripsen blong olgeta.

Aktiviti 3: Nem blong flat sep insaed long narafala flat sep

Bifo long lesen ia faenem ol olfala envelop mo divaedem ol studen oli go long ol smolsmol grup.

Tekem wan bigfala jat blong pija ia mo putum antap long bod blong evriwan i luk klia. Askem ol studen blong oli openem envelop blong olgeta mo putum ol leta semak olsem we yu bin putum long pija blong envelop we i stap long jat.



Naoia askem ol studen blong oli mekem wan tebol olsem hemia, oli mekem diskasen long ol karakteristik we oli luk folem ol leta we i stap long jat afta oi fulumap tebol.

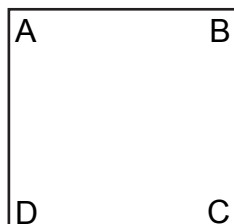
Eksampol:

Ol laen	Nem blong sep
ABCD	rektangel
ABE	
CFG	

Yu save faenem samfala sep moa blong givhan long ol studen blong oli save luksave ol sep we i stap insaed long ol narafala sep.

Aktiviti 4: Laen blong simetri

Givimaot ol bigbigfala skwea pepa long ol studen. Askem olgeta blong raetem A, B, C mo D long ol kona blong skwea pepa ia.



Talem long ol studen se, “Naolia, yumi mekem ol laen blong simetri.”

Askem ol studen blong foldem skwea olsem:

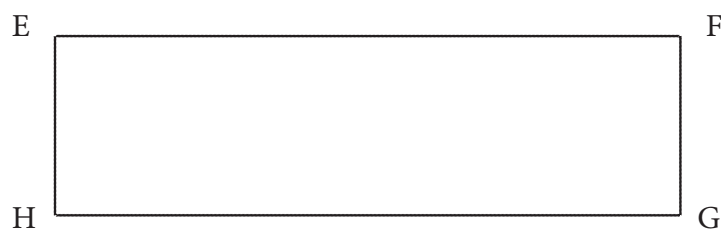
- ◆ Kona A i tajem kona D, mo kona B i tajem kona C. Afta, openem blong luk long wan laen blong simetri.
- ◆ Kona A tajem kona B, mo kona D i tajem kona C. Afta, openem bakegen blong luk long wan laen moa blong simetri.
- ◆ Kona A i tajem kona C. Afta, openem bakegen blong luk long wan laen blong simetri.
- ◆ Kona B i tajem kona D. Afta, openem bakegen blong luk long wan laen blong simetri

Hem i impoten blong eksplenem long ol studen se wan laen blong simetri hem i wan laen we taem yu foldem flat sep folem, bae wan saed blong sep i maredem gud narasaed blong sep ia. Bae i no gat hafhaf i hang aotsaed.

Talem long ol studen se wan skwea i gat 4 laen blong simetri. Ol studen oli save kaontem gud blong luksave. Ol narafala sep oli gat ol defdefren namba blong ol laen blong simetri blong olgeta.

Askem ol studen blong oli droem wan skwea insaed long eksasaes buk blong olgeta mo droem laen blong simetri long hem.

Aktiviti 5: Laen blong simetri long wan regtangel



Askem ol studen blong foldem rektangel olsem

- ◆ Kona F i tajem kona E, mo kona G i tajem kona H. Afta, openem blong luk long wan laen blong simetri.
- ◆ Kona H i tajem kona E, mo kona G i tajem Kona F. Afta, openem blong luk long wan laen moa blong simetri.

Eksplenem long ol studen se long wan Sep blong rektangel i gat tu laen blong simetri. Askem ol studen blong oli droem wan rektangel insaed long eksasaes buk blong olgeta mo droem laen blong simetri long hem.

Aktiviti 6: Wok long grid pepa

Givimaot fotokopi blong wan grid o grafik pepa o yu save yusum ol pej blong eksasaes buk we i gat ol grid o smolmol bokis long hem.

Putum ol instraksen ia long wan jat o long bod blong ol studen oli folem gud blong droem wan skwea. Yu mas ridim wetem ol studen mo eksplenem gud long olgeta wanem nao instraksen i stap traem blong talem.

- ◆ Putum wan poen o dot long top lefsaed kona blong wan smol grid mo raetem 'A'.
- ◆ Kaontem ol smolmol grid i go kros mo kasem 10 bokis afta putum wan moa poen o dot long top raetsaed kona mo raetem 'B'
- ◆ Kaontem ol smolmol bokis i kam daon kasem 10 afta putum wan moa poen o dot mo raetem 'C'
- ◆ Kaontem ol smolmol bokis i kambak long lefsaed kasem 10 afta putum wan moa poen o dot mo raetem 'D'
- ◆ Naoia yu karem rula blong yum o yusum pensel blong joenem ol poen ia. A i joenem wetem B; B i joenem wetem C; C i joenem wetem D; mo D i joenem wetem A.
- ◆ Naoia yu gat wan flat sep we yumi kalem skwea.

Afta, yu save krietem samfala instraksen moa blong ol studen oli save yusum blong krietem o droem ol defdefren sep.

Aktiviti 7: Katem ol sep long laen blong simetri mo mekem ol niufala sep

Bifo long lesen ia, mekem ol defdefren kaen flat sep long strong pepa o katen. Givimaot ol sep ia long ol studen mo askem olgeta blong katem ol sep ia folem laen blong simetri blong olgeta.

Divaedem ol studen oli go long ol smolmol grup blong olgeta mo askem olgeta blong oli tokbaot ol sep we oli holem long han blong olgeta mo wanem i hapen taem oli katem ol sep long ol laen blong simetri blong olgeta.

Kolektem evri pispis blong ol sep we oli bin katem olgeta folem ol laen blong simetri blong olgeta mo putum evriwan insaed long wan bokis. Naoia kapsaetem evriwan i stap long wan hip long wan tebol long fored blong fulklas.

Givim janis long ol studen blong kolektem 2 pis mo traem putum tugeta blong mekem wan niufala sep mo traem wokem aot mo talem nem blong hem.

Askem ol studen blong droem niufala sep blong hem insaed long buk blong hem mo raetem nem blong hem.

Not blong Tija: Kipim gud ol pat blong ol sep ia insaed long wan bokis from bae yu save givim janis long ol studen blong yu blong stap wok wetem blong oli andastanem gud ol sep, ol laen blong simetri mo tu ol angel. Yu save yusum tu long ol lesen blong yu long fiuja.

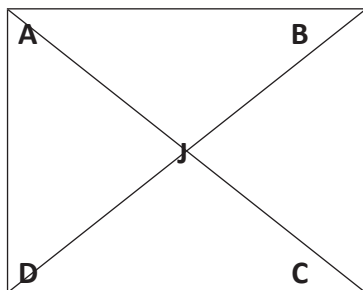
Aktiviti 8: Droem ol laen blong faenem sep

Putum pija blong sep ia long wan jat o long bod mo mekem diskasen wetem ol studen.

Eksplenem gud long ol studen se oli mas lukluk gud flat sep ia mo tufala laen we i krosem tufala insaed long hem. Laen we i kros long kona i go long narafala kona yumi kolek daeagonal laen.

Insaed long sep ia i gat 2 daeagonal laen: Laen AC mo laen BD.

Askem ol studen blong oli droem sep ia insaed long ol buk blong olgeta mo afta lukluk blong diskasem mo ansarem ol kwesten we i stap ia.



Askem long ol studen:

- ◆ Wanem nem blong sep ia ABCDA?
- ◆ Wanem nem blong sep ia ABJA?
- ◆ Wanem nem blong sep ia ADCA?
- ◆ Wanem nem blong sep ia BCJB?

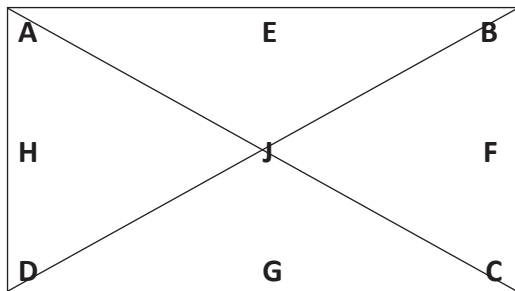
Yu save faenem sep insaed long flat sep ia wetem tufala daeagonal laen ia mo askem ol studen samfala kwesten moa blong givhan long olgeta blong andastanem wanem nao olgeta sep we i stap insaed long sep ia.

Bae yu stap ekspektem ol ansa olsem; rektangel, traeeangel. Hem i impoten se oli mas eksplenem ansa blong olgeta blong soem oli save gud wanem nao hem i wan rektangel mo wanem nao hem i wan traeeangel.

Strakja blong ansa bae i save go olsem, *Hem i wan traeeangel from i gat 3 saed long hem.*

Yu save droem wan narafala sep bakegen mo askem ol studen blong oli faenem laen blong simetri blong hem afta bakegen yufala i save wokemaot ol sep we i stap insaed.

Adem wan poen E long medel blong saed AB, wan poen F long medel blong saed BC, wan poen G long medel blong saed CD, mo wan poen H long medel blong saed DA, folem eksampol ia.



Askem ol studen blong joenem laen HF mo EG afta askem olgeta blong mekem diskasen mo ansarem samfala kwestem moa.

- ◆ Wanem nem blong sep ia AHFBA?
- ◆ Wanem nem blong sep ia AEJHA?
- ◆ Wanem nem blong sep ia ADCA?
- ◆ Wanem nao nem blong sep ia HFCDH?
- ◆ Naoia i gat hamas rektangel insaed long flat sep ia we yumi katkatem?
- ◆ Naoia i gat hamas traeeangel insaed long flat sep ia we yumi katkatem?

Aktiviti 9: Ges long sep 2D

Askem wan studen blong jusum wan sep (skwea, rektangel, sekel, ovol) be i no talemaot. Ol narafala oli mas faenemaot wanem sep hem i jusum.

Blong mekem, oli mas askem long studen ol kwesten abaot sep ia. Oli save fokas long saed, kona mo angel blong sep.

Studen we i jusum sep ia i lisen long deskripsen blong ol nara wan mo ansa “yes” o “no” nomo.

Hemia studen we i win, hem nao bae i jusum nekis sep. Plepleii i go raon.

Not blong Tija: Sapos sam studen oli faenem i had, i gud blong soem long olgeta ol ril sep.

Aktiviti 10: Komperem 2D mo 3D sep mo solid

Yusum ol 2D sep blong Aktiviti 1 mo 2. Ademap ol bokis blong masis, bokis blong jok, 1 balong mo ol narafal objek we i simpel solid sep.

Askem ol studen blong putum ol sep ia long 2 grup. Alawem olgeta blong mekem olgeta nomo afta yu save help sapos i gat nid.

Ol studen oli talem olsem wanem mo from wanem oli mekem tufala grup.

Oli sud talem long yu se ol sep we oli flat o plen oli 2-daemensen (2D) sep olsem skwea, retangel mo traangel. Ol narafala sep oli gat volium mo spes, yumi save fulumap samting long hem, ol kontena oli ol 3-daemensen (3D) sep o solid.

Aktiviti 11: Flat sep mo solid sep, 2-daemensonal mo 3-daemensonal

Bifo long lesen ia rere ol sep ia. Yu save yusum tu ol solid sep we oli stap long Numerasi Kit.

Putum ol flat sep mo ol solid sep evriwan insaed long wan bokis mo askem ol studen blong oli wok tugeta blong sotemaot olgeta i go insaed long tu grup. Wan grup blong ol flat sep mo wan grup blong ol solid sep.

Hem i impoten blong yu mas eksplenem gud long ol studen se ol flat sep oli flat nomo mo oli gat tu saed nomo olsem wan lif blong pepa. Ol flat sep olsem yumi kolek olgeta ol 2-daemensonal sep o long sotfala wei yumi kolek olgeta ol 2D sep.

Afta, eksplenem long ol studen se ol narafala sep we yumi stap rifea long olgeta olsem ol solid sep hem i olgeta sep we oli gat hae, longfala sotsaed (width, largeur) mo longfala longsaed (length, longeur). Ol kaen sep olsem yumi kolem olgeta ol 3-daemensonal sep o sotfala wei yumi kolem olgeta ol 3D sep.

Naoia we ol studen oli gat janis blong tajem mo plepleii wetem ol sep finis long taem we oli stap divaedem olgeta i go long tufala grup mo tu from we yu eksplenem gud long olgeta finis deferens blong 2D sep mo 3D sep i gud yu testem save blong olgeta wetem ol kwesten blong yes o no we i stap ia.

Oli studen oli mas talem se “Yes” o “No”:

- ◆ Wan solid sep hem i wan sep we i gat wan voilum o spes?
- ◆ Wan solid hem i wan plen sep?
- ◆ Wan solid hem i tik, i gat emti spes?
- ◆ Wan kiub hem i wan solid sep?
- ◆ Wan traearangel hem i wan 3D sep?
- ◆ Wan balun i wan solid?
- ◆ Wan skwea i wan solid sep?
- ◆ Wan bokis blong masis hem i wan 3D sep?

Yu save joenem moa list ia blong givhan long ol studen oli andastanem gud ol 2D sep mo ol 3D sep.

Not blong Tija: Sapos yu faenem se ol studen oli gat problem blong luksave ol sep, i moa gud taem yu askem kwesten be yu holem sep tu long han blong yu blong mekem se ol studen oli kasem wanem sep nao yu stap rifea long hem blong givhan long olgeta.

Aktiviti 13: Luksave 2D o 3D

Yusum woksit (**Apendiks 2**) blong ol 2D mo 3D sep. Askem ol studen blong sekolem ol 3D sep long red kala mo ol 2D sep long blu kala.

Raetem tebol ia long bod mo askem olgeta studen blong putum namba blong sep long bokis folem deskripsen we i stap.

Kona	Fes	Saed	Sep
3	1	3	
8	6	12	
4	1	4	

Yu save krietem wan tebol olsem mo askem ol studen oli komplitim. Yu save jusum sam narafala sep o yu save talem nem blong olgeta afta ol studen oli investigetem mo faenem ol karakteristik blong hem.

Not blong Tija: Hem i impoten tumas se yu mas eksplenem gud long ol studen se pat blong ol fes blong ol solid sep hem i ol flat sep.

Aktiviti 14: Yusum ol plen sep blong bildim ol solid sep

Givimaot paten blong mekem wan bokis (net blong kiub) long ol studen (**Apendiks 3**).

Bifo olgeta oli mekem bokis ia, askem oli blong kaontem gud mo save hamas pis blong skwea i stap long net ia blong mekem wan bokis.

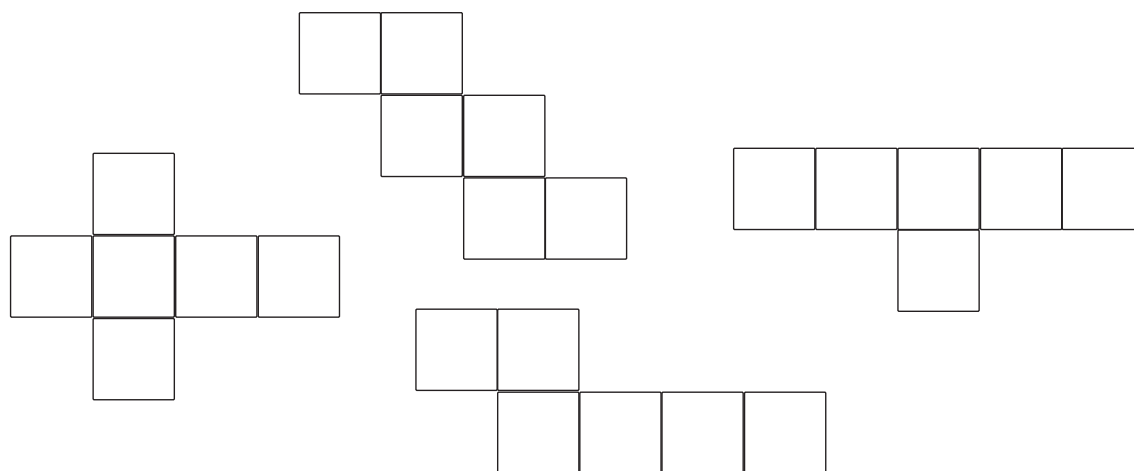
Givhan long ol studen blong mekem diskasen long hao nao wan plen sep i kam wan solid sep. Hem i gud blong tokbaot mo wokem semtaem.

Oli mas mekemsua se oli gat 6 pis blong skwea wetem olgeta we oli semak gud. Oli save mekem aot long katon o yusum pepa nomo.

Naoia oli joenjoenem blong mekem wan bokis.

Naoia oli save agri wetem wanem we yu bin talem long olgeta fastaem se ol plen sep oli save mekem ol solid sep

Eksplenem long ol studen se i gat ol 3D sep we i gat spes insaed olsem hemia we yumi wokem be i gat ol solid sep o 3D sep tu we oli nogat spes insaed long olgeta. Hem i impoten tumas blong yu save givim janis long ol studen blong yusum ol narafala plen sep blong wokem ol narafala solid sep. Mein samting se ol studen oli mas save gud wanem kain plen sep nao yumi putum tugeta blong mekem solid sep we oli wantem bildim. Soem ol defren paten we i mekem wan kiub olsem:



Ol Kwesten blong Asesmen:

Ol studen oli save:

- ◆ luksave wan skwea mo talem ol karakteristik blong hem?
- ◆ luksave wan rektangel mo talem ol karakteristik blong hem?
- ◆ luksave wan tranggel mo talem ol karakteristik blong hem?
- ◆ wan 3-daemensen sep long wan 2-daemensen sep?
- ◆ talem ol simpol karakteristik blong wan 3-daemensen sep?
- ◆ droem simetrik laen blong wan 3 mo 4 kona sep.
- ◆ luksave wan skwea, wan rektangel, wan traangel mo droem long pepa we i gat grid?
- ◆ joenem 2 sep blong mekem wan niufala sep?
- ◆ luksave ol saed, kona, angel mo longfala o sotfala blong wan sep?

Oportuniti blong Asesmen

Askem ol studen blong droem wan simetrik laen blong wan skwea o rektangel o traangel.

2. Posisen mo Spes

Lening Aotkam: GT.3.V1 – Droem ol simpol map blong soem ol defren ples we oli save

Fokas blong ol Aktiviti: Ridim simpol map mo yusum grid

Ol Risos: Tebol, grid, pija blong rum (**Appendiks 4**)

Vokabulari: Nambawan laen, lasfala laen, medel, bitwin, lefsaed, raetsaed, ol wod blong Yia 1 mo 2

Ol Lening Aktiviti

Aktiviti 14: Talem posisen aotsaed long klasrum

Tekem fulklas i go aotsaed mo askem 1 studen blong fo fastaem mo stanap long wan ples we ol narafala oli save luk hem. Askem sam studen blong givim posisen blong fren blong olgeta.

Eksampol:

- ◆ Leisel i stanap klosap long tank blong wota
- ◆ Lesiel i stanap long saed blong tank blong wota.
- ◆ Hem i stanap long medel blong tank wetem klasrum blong Klas 1.

Naoia ol studen oli save se Lesiel i stanp klosap long tank be i stap long saed we i fesem klasrum blong Klas 1.

Mekem plante praktis mo askem ol studen blong traem talem posisen blong ol fren blong olgeta. Taem oli stap kasem gud fasin blong talem posisen, naoia yu mas mekem i kam had lelebet moa.

Divaedem ol studen i go long ol smolsmol grup mo askem olgeta blong sendem wan fren blong yufala fastaem i go long wan ples we i no long we tumas be yufala i no luk hem.

Afta, sendem wan narafala fren blong yufala bakegen i go luk hem mo kam bak taem posisen we fren blong yufala i stap long hem. Naoia yufala evriwan i go mo faenem se infomesen we yufala i karem aboat posisen blong fren blong yufala i tru o no?

Afta jenisim ol man bakegen blong traem narafala posisen

Taem we ol studen oli kasem gud fasin blong talem gud posisen blong ol fren blong olgeta yu save stat blong askem oli raetem daon posisen blong ol narafala samting insaed long klasrum mo tu aotsaed long klasrum mo talemaot laod blong ol narafala oli traem jekem sapos i stret gud.

Aktiviti 15: Givim posisen blong haos blong yu

Eksplenem long ol studen se posisen mo givim dareksen blong narafala man blong kasem wan samting o blong kasem wan ples hem i wan impoten skil tumas mo yumi evriwan i mas save hao blong givim gud posisen blong ol ples mo ol ting long narafala man.

Givim janis long wanwan studen blong kam givim posisen blong desk blong hem fastaem olsem wan praktis.

Eksampol:

Desk blong mi hem i stap long fored klosap long desk blong tija. Hem i nambatri desk afta long tufala we i stap klosap long do.

Taem we ol studen oli mekem praktis finis askem olgeta blong traem givim posisen blong ol haos blong olgeta o sapos no givim posisen blong vilij o eria blong olgeta.

Givim plante janis long ol studen blong oli mekem plante praktis wetem ol fren blong olgeta fastaem afta oli save mekem presentesen long fulklas. Hem i blong mekem se oli kasem gud hao blong givim ol posisen blong ol ples mo ol ting.

Not blong Tija: Ol studen oli nid blong wokem long oral fastaem blong developem save blong olgeta long fasin blong givim posisen afta oli save stat blong raetem long pepa mo tu oli save stat blong droem ol pija blong ripresentem ol defderen lokesen, posisen blong ol objek mo tu posisen blong ol man mo ples.



Aktiviti 16: Posisen long pija

Kopi pija ia long **Appendiks 4** o droem olsem long bod. Askem ol studen blong givim posisen blong wanwan samting insaed long rum we i stap long pija ia. Oli save givim posisen blong tebol, bed, keten, windo o kabod, mo oli sud yusum ol toktok olsem lefsaed, raetsead, fored, klosap, long medel, mo samfala moa.

Yu save yusum pija ia o yu save jusum wan narafala we i simpol o i stap long konteks blong klasrum blong yufala, vilej o wan narafala envaeromen we ol studen oli familia long hem.

Askem long ol studen:

- ◆ Wanem feneja nao i stap klosap long bed blong silip we i stap long raetsaed blong rum ia?
- ◆ Wanem ples stret nao tebol i stap long hem?
- ◆ Tufala lam (laet) i stap wea stret insaed long rum ia?

Yu save askem samfala kwesten moa mo tu yu save jenisim map o plan ia sapos yu wantem.

Sapos we yu mekem fotokopi o yu gat ol kopi blong givim long ol studen yu save askem olgeta blong yusum kala olsem:

- ◆ Kalarem laet we i stap long raetsaed blong rum i yelo
- ◆ Kalarem laet we i stap long lefsaed blong rum i orenj
- ◆ Kalarem pilo we i stap long bed long raedsaed i grin
- ◆ Kalarem pilo we i stap long bed long lefsaed i blu

Yu save askem ol studen oli mekem samfala moa folem ol kwesten we bae yu askem long olgeta. Yu go raon long klasrum mo askem wanwan studen oli talem long yu from wanem oli kalarem ol ting long ol kala we i stap.

Not blong Tija: Sapos sam studen oli faenem i had long ol kala, helpem olgeta long wanem kala blong yusum long wanem saed blong rum.

Aktiviti 17: Ridim mo givim posisen yusum grid

Givimaot long ol studen wan kopi blong grid ia. Eksplenem long ol studen se, “Horisontol kolom hem i stat long 0 kasem 7, vetikel kolom hem i stat long leta A kasem H.”

H								
G								
F								
E								
D								
C								
B								
A								
	0	1	2	3	4	5	6	7

Talem long ol studen, “Taem yumi givim posisen blong wan samting insaed long wan grid, yumi ridim ol leta fastaem afta yumi talem ol namba.”

Nao, givim ol posisen mo askem olgeta blong droem:

- ◆ Wan flawa insaed long bokis (A, 2)
- ◆ Wan fish long bokis (F, 6)
- ◆ Mo samfala moa (ol samting we i stap long envaeromen blong ol studen)

Afta, ol studen droem wan pija insaed eni bokis long grid mo talem long yu posisen we i stap.

Aktiviti 18: Simpol gem blong batel

Gem ia i gat tufala plea. Wanwan i droem wan bigfala grid long pepa we horisontol laen i stat long 0 kasem 10, mo vetikel laen i stat long A kasem J.

Insaed bokis blong grid ol studen oli putum 5 objek olsem 1 pen, 1 raba, 1 rula, 1 daes mo 1 ki. Hemia samfala samting be ol studen oli save yusum ol narafala samting tu insaed long bokis.

Wanwan i putum wan long ol 5 samting ia long wan bokis blong grid we hem i priperem. Taem hem i stap putum long grid, fren blong hem i mas lukluk long narafala daereksen, hem i no mas luk.

Gem i stat.

Fas plea i traem blong ges wea wan long ol 5 objek ia i haed long wanem bokis.

Hem i talem ol posisen olsem: (B, 4).

Sapos i gat wan ojek long bokis ia, narafala plea i singaot, “**Kasem!**” Afta, hem i talemaot wanem objek nao nara plea i kasem.

Sapos i nogat samting long bokis ia, plea i singaot, “**Mestem!**” Afta, gem i pas i go long narafala plea. Hem nao i traem blong faenem se ol objek blong narawan i stap long wanem bokis blong grid.

Gem i kontiniu. Feswan long tufala plea we i ges mo faenem ol 5 objek evriwan blong narafala wan hem i wina long batel.

Aktiviti 19: Plan blong rod

Talem long ol studen se, “Yu stap invaetem ol fren blong yu long betde blong yu be samfala i no save haos blong yu. Yu mas mekem wan simpel map blong helpem ol fren blong yu blong faenem haos blong yu.”

Ol studen oli mekem plan blong rod we i go long haos blong hem.

Afta, askem sam studen blong prisentem long klas. Putumap ol wok ia long wol blong klasrum.

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ givim posisen blong olgeta yusum wan tri, bilding o narafala samting taem oli stap aotsaed long klasrum?
- ◆ givim posisen blong olgeta yusum ol samting insaed long klasrum?
- ◆ givim posisen blong narafala samting yusum ol toktok blong klosap, lefsaed, raetsaed, fored...?
- ◆ talem ol ples we oli stap long hem yusum lefsaed, raetsaed mo medel?
- ◆ yusum ol narafala objek blong tokbaot wea nao ol defren objek i stap long hem, olsem stap long fes o seken laen o wanem saed?
- ◆ diskraebem rod blong wan ples i go long narafala ples?
- ◆ droem wan simpel map blong soem ples we oli liv long hem?

Opotuniti blong Asesmen

Yusum wan grid tebol, **A–D vetikel** mo **0–5 horisontol**. Putum tri objek insaed long grid. Askem long studen blong givim posisen blong wanwan objek.

Tem 1, Wik 11

Ol Sab-stran: 1. Fraksen 2. Longfala, Weit mo Kapasiti

1. Fraksen

Lening Aotkam: NF.3.V1 – Divaedem wan hip blong ol objek i go long ol smol hip we oli semak

Fokas blong ol Aktiviti: Katem wan yunit i go long ol pat we i ikwel

Vokabulari: Serem, fraksen, ikwel (kitkit)

Ol Risos: Frut, naef, kek, pepa

Ol Lening Aktiviti

Aktiviti 1: Sering

Tokbaot wetem ol studen tingting blong fraksen i olsem tingting blong serem samting. Wanem ia sering? Wanem ia fraksen?

Eksplenem long ol studen se fasin blong sering hem i wan impoten fasin long kalja blong yumi ol pipol long Vanuatu be hem i wan konsep blong Matematik tu. Hem i impoten blong ol studen oli andastanem gud sering mo ikwel sering.

Askem ol studen: “Wanem nao samfala kakae we yumi save serem long, hom, vilej o komyuniti?”

Bae yu ekspektem ol studen oli givim ol ansa we oli tokbaot plante ol kakae. Ol frut, kek, pae mo samtaem oli save talem se yumi serem jus o sam narafala samting moa.

Askem ol studen blong oli mekem ol smol stori mo oli droem pija blong hem.

Eksampol:

Lako mo Leilako tufala i brata mo sista. Lako hem i wan boe mo smol sista blong hem hem i Leilako.

Long wan lanj Lako i talem long Leilako se, “Tedei bae yumi tu kakae popo long lanj.”

Lako hem i karem wan smol popo mo hem i klinim gud mo katem long 2 pis. Hem i katem long medel stret.

Eksplenem long ol studen se long matematik, wan saed blong ful popo yumi talem se hem i fraksen blong popo ia. Haf blong popo ia hem i fraksen blong ful popo.

Not blong Tija: Hem i impoten se taem yu stap mekem ol eksasaes blong sering yu mas stat blong stap pulum toktok blong fraksen i kam insaed blong mekem se ol studen oli stat blong andastanem toktok ia fraksen mo wanem nao i minim.

Aktiviti 2: Pat blong fraksen

Putum ol studen long grup blong 2. Askem oli blong jusum wan samting (yunit) blong serem mo namba blong pis we bae oli serem long hem.

Eksampol:

Popo = Mitufala serem long 5 pis

Mekem semak wetem:

- ◆ apol = 2 pis
- ◆ kek = 4 pis
- ◆ bred = 3 pis

Wanwan grup i mekem wan smol stori olsem:

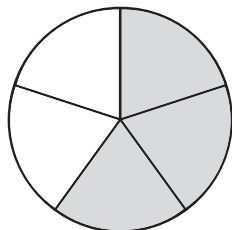
- ◆ Grup 1: popo – aot long 5 pis mitufala kakae 3 pis.
- ◆ Grup 2: apel – aot long 2 pis mitufala kakae 1 pis.
- ◆ Grup 3: kek – aot long 4 pis mitufala kakae 4 pis.
- ◆ Grup 4: bred – aot long 3 pis mitufala kakae 2 pis.

Naoia askem wanwan grup blong yusum sekol blong ripresentem olsem serem kake blong olgeta.

Eksampol:

Grup 1: popo – aot long 5 pis mitufala kakae 3 pis.

Ol studen, oli droem sekol mo divaedem i go long 5 pis (mekemsua se ol pis blong olgeta oli ikwel oltaem). Afta, oli kalarem 3 pis we tufala i kakae:



Nao, raetem stori ia wetem saen blong fraksen.

Talem long ol studen se, “Aot long 5 pis popo, yufala i kakae 3 pis.

Yumi raetem olsem:

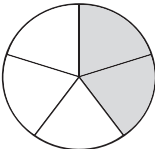
$\frac{3}{5}$

Mo yumi ridim:

3 aot long 5

Talem long olgeta se, “3 hem i namba blong pis we oli kakae mo 5 hem i total namba blong pis.”

Nao askem ol studen blong putum ol infomesen blong ol kakae long tebol ia folem eksampol

Yunit	Ol pis	Ol pis we i bin kakae	Droem stori	Raetem fraksen	Ridim
1 popo	5	3		$\frac{3}{5}$	3 aot long 5
1 apol	2	1			
1 kek	4	4			
1 bred	3	2			

Not blong Tija: Sapos sam studen oli faenem i had, tekem ol ril objek bling oli wok long olgeta.

Aktiviti 3: Serem ol objek

Provaedem ol defren samting (yunit) blong brekem daon o serem, olsem 1 stik, 1 A4 pepa, 1 haebiskas flawa, 1 paenapol. Givim namba blong pis long ol studen blong oli serem olsem:

Stik: 2 pis

A4 pepa: 6 pis

Haebiskas flawa: 5 pis

Paenapol: 8 pis

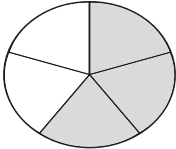
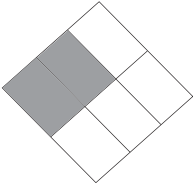
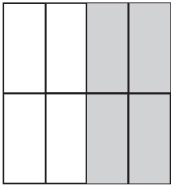
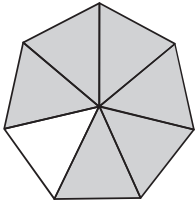
Ol studen oli brekemdaon mo serem ol pis blong yunit we oli gat (mekemsua se ol pis oli ikwel). Afta, oli mekem wan stori blong talemaot hamas pis oli tekemaot mo droem stori blong olgeta yusum sekol sep olsem Aktiviti 3.

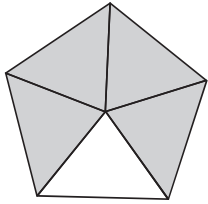

Aktiviti 4: Fraksen mo mining blong hem

Askem ol studen blong oli mekem wan smol stori long fraksen bakegen blong lukluk bak long wanem oli lanem long narafala lesen we i pas. Hem i impoten tumas blong yu olsem tija yu save gud se ol studen oli kasem konsep blong fraksen mo sering bifo yu muv i go long nekis aktiviti.

Yu mekem jat ia i bigwan mo putum antap long bod o yu droem nomo long bod. Bae hem i gud tu sapos we yu mekem foto kopi long hem mo givim long ol studen blong yu.

Askem long ol studen blong oli lukluk gud ol pija blong fraksen ia mo wokemaot wanem i stap hapen. Kaontem namba blong ol pis, hem nao namba we bae i stap daon ol taem. Kaontem namba blong ol pis we oli kalarem o oli kakae, hem nao namba we bae i stap antap oltaem.

Pija	Ridim	Fraksen
	2 aot long 3	$\frac{2}{3}$
		
		
		

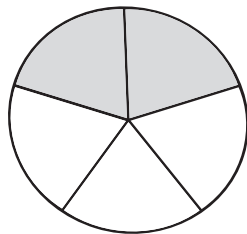
		
		

Yu save krietem samfala aktiviti blong givihan long ol studen blong yu andastanem gud mo save wok wetem fraksen.

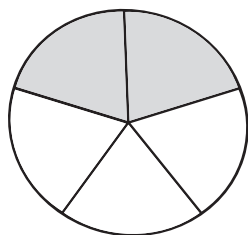
Not blong Tija: Hemi impoten blong yu eksplenem long ol studen se fraksen hem i save wok oposit tu depen long ol kwesten blong hem.

Eksampol:

Wanem fraksen blong kek nao oli bin kakae. (Ansa hem i : $\frac{2}{3}$)



Wanem fraksen blong keke nao oli no kakae. (Ansa hem i : $\frac{1}{3}$)



Ol Kwesten blong Asesmen:

Ol studen oli save

- ◆ mining blong 1 yunit?
- ◆ mining blong serem?
- ◆ serem wan yunit o wan objek?
- ◆ soem wan situesen blong seremaot yusum wan sekol o narafala sep?
- ◆ kala long ol pis we oli tekemaot long total blong ol pis we oli seremaot?
- ◆ raetem saen blong fraksen blong soem wan situesen?

Oportuniti blong Asesmen

ol studen oli mekem wan stori mo droem situesen wetem fraksen ia: $\frac{1}{4}$.

2. Longfala, Weit mo Kapasiti

Lening Aotkam: MLWC.3.V1 – Estimetem, mesarem, komperem mo diskasem weit mo kapasiti blong ol ting yusum standed metod

Fokas blong ol Aktiviti: Hae (height/hauteur)

Ol Risos: Rula, ol flaskad blong ol aetem, ol defdefren jat

Vokabulari: Hae, longfala, wait

Ol Lening Aktiviti

Aktiviti 1: Hae blong ol ting

Eksplenem long ol studen se hae hem i wan toktok blong yusum taem yumi stap mekem longfala blong ol ting. Hem i semak nomo olsem lon fala blong wan samting be nomo se hem i stat long graon mo i go antap.

Askem long ol studen oli lukluk hae blong jea o stul blong olgeta, lukluk hae blong desk blong olgeta, lukluk hae blong tebol blong tija, lukluk hae blong kabod mo ol narafala feneja insaed long klasrum. Askem olgeta blong oli tokbaot mo talem wanem i hae bitim narawan.

Oli save lukluk mo tokbaot tu wol blong klasrum, sapos oli lukluk aotsaed oli save tokbaot tu hae blong ol tri mo tu hae blong ol haos.

Givim janis long ol studen blong oli wokemaot se hem i hae o hem i longfala blong wan samting.

Putum jat ia antap o givim fotokopi o sapos no askem ol studen blong oli kopi insaed long eksasaes buk blong olgeta afta wokemaot ansa se hem i longfala o hae blong wan samting.

Ol studen oli putum wan tik long stret bokis soem wijwan i bigwan bitim ol nara mesamen, folem eksampol:

Aetem	Longfala sotsaed (width)	Longfala	Hae blong hem
Leg blong jea			√
Flat sefes blong tebol	√	√	
Leg blong tebol			
Displebod			
Tri blong kokonas			
Bod (blakbod)			

Yu save faenem samfala moa blong givhan long ol studen blong yu blong oli andastanem gud se hae hem i taem yumi wantem makem wan samting stat long graon i go antap.

Not blong Tija: Yu save yusum tebol we i stap ia be yu save jenisim tu ol toktok i go long ol pija dipen long andastaning blong ol studen blong yu long eksasaes ia. Impoten samting nao hem i blong ol studen oli andastanem gud se yumi makem hae stat long graon i go antap.

Aktiviti 2: Instramen blong mesarem hae

Askem long ol studen blong oli tokbaot ol defdefren instramen blong mesarem hae. Askem long olgeta:

- ◆ Wanem kaen instramen nao bae yumi yusum blong mesarem hae blong wan jea?
- ◆ Wanem kaen instramen nao bae yumi yusum blong mesarem hae blong wan tebol?
- ◆ Wanem kaen instramen nao bae yumi yusum blong mesarem hae blong wol?
- ◆ Wanem kaen instramen nao bae yumi yusum blong mesarem hae blong wan tri blong kokonas?

Askem long ol studen blong oli tokbaot tu hao nao bae oli faenem hae blong olgeta samting.

Hemia ol kwesten blong givhan:

- ◆ Hao nao bae yumi faenem hae blong wan jea?
- ◆ Hao nao bae yumi faenem hae blong wan tebol?
- ◆ Hao nao bae yumi faenem hae blong wan wol?
- ◆ Hao nao bae yumi faenem hae blong wan tri blong kokonas?

Givim plante janis long ol studen blong oli tokbaot wanem instramen nao bae oli yusum blong mesarem hae blong olgeta samting mo hao nao bae oli mesarem olgeta.

Hem i impoten tumas blong yu mas letem ol studen i save se semfala instramen we yumi stap yusum blong mesarem longfala blong ol ting yumi save yusum tu o oli semfala instramen we yumi yusum blong mesarem hae blong ol ting.

Afta we ol studen i gat plante taem finis blong tokbaot yu mas givhan long olgeta blong oli save stat blong mesarem samfala long ol ting we yufala i tokbaot finis.

Eksampol:

- ◆ Yumi yusum 30sm rula blong mesarem leg blong jea
- ◆ Yumi yusum 30sm o 40sm o 1m rula blong mesarem leg blong tebol
- ◆ Yumi yusum tep mesa o 1m rula blong mesarem hae blong wol
- ◆ Yumi save yusum wan tep mesa o wan rop wetem 1m rula blong mesarem hae blong wan tri blong kokonas (yufala i save tokbaot hemia nomo blong stat tingting blong ol studen long fasin we yumi yusum ol non standed mo ol standed tugeta blong mesarem ol ting we i hae tumas, longfala sotsaed tumas mo longfala tumas)

Givim janis blong ol studen blong wok long ol smolsmol grup blong mesarem olgeta samthing ia mo samfala moa we yu save askem olgeta blong mesarem. Insaed long grup, samfala oli holem mo mekem mesamen wetem ol instramen mo ol narafala oli help blong makemaot afta ol narafala oli rikodem dao hae blong ol ting we oli stap traem blong mesarem.

Not blong Tija: Yu mas mekemsua se ol studen oli mas save wanem yunit nao bae oli yusum blong mesarem wan samting. Sapos hem i wan samting we i smol askem olgeta oli mesarem wetem milimita (mm) sapos no sentimita (sm). Blong olgeta we i hae moa, letem olgeta oli yusum mita (m).

Aktiviti 3: Wijwan rula?

Eksplenem gud long ol studen blong oli save se taem oli stap mesarem longfala, longfala sotsaed o hae blong wan samting, hem i impoten blong oli luk save se bae hem i nidim wanem kaen rula o bae hem i yusum wanem yunit blong mesarem.

Putum tebol ia long bod mo eksplenem gud long ol studen hao nao bae oli wok wetem. Givim Janis long olgeta blong oli wok long ol smolsmol grup blong tingting raon long ol aetem ia mo jusum ol rula we i stret gud blong mesarem olgeta. Bae oli putum tebol ia long wan bigfala pepa mo bae oli mekem presentesen. Oli mas eksplenem long ol fren blong olgeta from wanem nao oli putum ol rula ia long ples blong ol ting ia.

Blong mesarem hae blong:	Instramen blong mesamen			
	20sm rula	30cm rula	40sm rula	1m rula
Smol katen blo batri				
Smol saed blong bod				
Wol blong haos				
Tebol blong klasrum				
Hae blong doa				
Longfala blong eksasaes buk				

Yu save mekem plante moa aktiviti olsem blong ol studen oli lan blong jusum stret rula blong yusum. Mo yu save askem olgeta tu blong mekem stret blong oli andastanem wanem nao yumi stap minim taem yumi wantem oli jusum stret rula.

Letem ol studen oli kopi wan tebol olsem insaed long buk blong olgeta blong givhan long olgeta oltaem blong rimemba.

Aktiviti 4: Mesarem wetem yunit blong mita (m)

Eksplenem long ol studen se taem yumi wantem wok wetem ol longfala mo hae blong ol ting we oli bigbigwan saes blong rula blong yumi i go antap. Samfala taem ol man blong wokem haos olgeta i yusum, wan instramen oli kolek tepmesa from i save mesarem ol ting i go long we moa long rula. Yunit we yumi yusum blong mesarem ol ting we oli longfala moa o hae moa hem i mita (m).

Divaedem ol studen oli go long ol smolsmol grup mo askem olgeta blong yusum 1m rula blong mesarem samfala samting mo kam ripotem bak long klasrum. Insaed long grup evriwan i mas tekpat long wok blong mekem se oli kasem gud save mo skil long hao nao yumi mesarem ol ting.

Mesarem ol ting olsem:

- ◆ Hae blong wol blong klasrum stat long graon kasem windo
- ◆ Longfala blong klasrum
- ◆ Hae blong golpos
- ◆ Bigfala blong gol
- ◆ Longfala blong futbol fil
- ◆ Sotfala saed blong futbol fil
- ◆ Longfala blong volibol kot
- ◆ Sotfala saed blong volibol kot

Givhan long wanwan grup blong putum ol infomesen blong olgeta long wan bigfala jat blong presentem long klas. Afta long presentesen, yufala i mekem ol koreksen tugeta mo fulklas i gat wan jat nomo we evri infomesen ia i stap long hem.

Yu save faenem samfala moa samting blong ol studen oli save mesarem mo rikodem ol mesamen ia long ol buk blong olgeta.

Aktiviti 5: Mesarem wetem yunit blong sentimeta (sm)

Askem ol studen blong soem long evriwan long klas wanem kaen rula nao oli gat wetem olgeta. Sam maet gat ol rula we skul i givim long olgeta o rula we ol peren blong olgeta i pem blong olgeta. Bae yu faenem se samfala oli gat ol 10sm rula, samfala oli gat ol 20sm rula, samfala oli gat ol 30sm rula mo samfala oli gat 40sm rula.

Askem kwesten ia long olgeta mo lisen long ol ansa blong olgeta; “Yumi save yusum rula olsem ol rula ia blong mesarem wanem kaen samting?”

Tokbaot ol ansa blong olgeta. Hem i impoten blong yu mas harem tingting blong ol studen long andastaning blong olgeta long rula blong olgeta mo wanem nao oli save mesarem.

Eksplenem long olgeta se olgeta rula we oli gat hem i blong mesarem olgeta smolsmol samting. Ol samting we yumi save holem nomo long han blong yumi o ol samting we oli no ova long longfala blong rula blong yumi.

Mekem wan lis long bod mo askem long ol studen blong oli kopi i go insaed long eksasaes buk blong olgeta afta oli mesarem mo rikodem.

Hemia samfala samting we yu save askem long ol studen oli mesarem insaed long klasrum nomo.

Aetem	Mesamen (sm)
Longfala blong eksasaes buk blong matematik	
Longfakla blong sled	
Lonfala blong jea	
Longfala blong wan niufala pesel	
Longfala blong wan niufala jok	
Longfala blong blang pepa	

Yu save ademap moa long lis ia mo tu yu save askem long ol studen blong oli kolektem samafa narafala samting aotsaed long klasrum blong oli mekem praktis blong mesamen long olgeta.

Not blong Tija: Yu mas lukluk gud se ol studen oli save gus fasin blong yusum rula blong olgeta. Oltaem oli mas plesem namba 0 long wan en blong samting we oli wantem mesarem mo ples we narafala en i stap hemia nao hem i mesamen we oli stap traem blong faenem.

Aktiviti 6: Mekem estimatesn wetem yunit blong ‘sm’ mo yunit blong ‘m’

Eksplenem long ol studen se blong jusum ol yunit we bae yumi yusum blong mesarem wan samting hem i impoten tumas.

Sapos we wan studen i talem se bae yumi yusum ‘sm’ blong mesarem hae blong wan doa, hemia hem i wan bigfala problem from studen ia hem i no andastanem se doa hem i longfala mo yumi mas yusum ‘m’ blong mesarem.

Hem i semak tu sapos we wan studen i talem se bae yumi yusum ‘m’ blong mesarem longfala blong wan eksasaes buk. Hemia tu hem i wan bigfala problem from studen ia hem i no andastanem se eksasaes buk hem i sotfala mo yumi mas yusum ‘sm’ nom oblong mesarem.

Askem samfala oral kwesten long ol studen blong yufala i pleplei raon long hem fastaem bifo oli go long men aktiviti.

Hemia samfala kwesten blong givhan long diskasen:

- ◆ Bae yumi yusum wijwan yunit (sm o m) blong mesarem hae blong wan doa?
- ◆ Bae yumi yusum wijwan yunit blong mesarem longfala blong wan eksasaes buk?
- ◆ Bae yumi yusum wijwan yunit blong mesarem longfala blong tebol blong tija?
- ◆ Bae yumi yusum wijwan yunit blong mesarem longfala blong wan pensel?

Yu save jusum plante moa aetem blong ol studen i mekem praktis long hem mo tokbaot moa street fasin blong mekem estimatesen.

Divaedem ol studen i go long ol smolsmol grup mo givim wan hip blong ol flaskkad long olgeta. Insaed long ol flask ad ia i gat nem blong ol aetem. Askem olgeta blong putum gud ol kad ia long tu grup. Wan hem i ol aetem we yumi yusum sentimeta blong mesarem mo narafala hem i ol aetem we yumi yusum mita blong mesarem.

Afta we evriwan i finis askem ol grup blong oli pasraon blong lukluk wok blong ol fren blong olgeta. Sapos i gat samfala i rong, evriwan i wok olsem wan klas blong stretem.

Not blong Tija: Hem i impoten tumas blong ol studen oli save stat blong mekem estimatesen blong ol yunit we bae yumi yusum blong mesarem ol ting from long fiuja bae oli stat blong mekem estimatesen long longfala mo hae blong ol ting bifo oli mesarem blong faenemaot stret.

Ol Kwesten blong Asesmen

Ol studen oli save

- ◆ tingting blong hae?
- ◆ talem ol defren hae blong ol objek long envaeromen blong olgeta?
- ◆ mesarem wetem non-standed yunit?
- ◆ mesarem wetem standed yunit?
- ◆ estimetem hae blong wan objek o samting?
- ◆ kasem gud se mita i bigfala moa long sentimita?
- ◆ kasem gud se sentimita i smol moa long mita?

Opotuniti blong Asesmen

Soem long ol studen hae blong wan 3-daemensen sep mo askem olgeta blong mesarem olgeta.

Ovaviu Tem 2

Wik	Sab-stran	Fokas blong ol Aktiviti
1	Ful Namba	399–499
	Sep mo Anggel	Ol 2D mo 3D sep
2	Operesen	Ademap
	Sep mo Anggel	Introdium ol anggel
3	Operesen	Ademap wetem karem i go long nekis yunit
	Paten	Mekem ol paten
4	Probabiliti	Prediksen
	Fraksen	Serem wan objek
5	Longfala, weit mo kapasiti	Ol yunit blong longfala
	Ful Namba	499–599
6	Operesen	Tekemaot
	Handelem Data	Ridim mo presentem infomesen
7	Operesen	Maltiplikesen
	Longfala, weit mo kapasiti	Ol yunit blong weit
8	Ful Namba	599 –699
	Taem	Ridim ful taem
9	Longfala, weit mo kapasiti	Komperem kapasiti
	Paten	Krietem mo mekem paten wetem ol dekoresen
10	Mani	Givim bak mani
	Posisen mo spes	Putum objek long grid mo ridim posisen blong objek



Tem 2, Wik 1

Ol Sab-stran: 1. Ful Namba (399–499) 2. Sep mo Anggel

1. Ful Namba

Lening Aotkam: NWN.3.V1 – Ridim, raetem, ripsentem mo putum ol ful namba long oda kasem 999, yusum ol defren materiel

Fokas blong ol Aktiviti: 399 kasem 499

Ol Risos: Flaskad blong ol namba, tebol blong numeresen, ol slet blong ol studen, jok

Vokabulari: Tri handred naenti-naen kasem fo handred naenti-naen

Ol Lening Aktiviti

Aktiviti 1: Pas 399 i go long 400

Ol studen oli sidaon long mat mo soem long olgeta namba 399. Letem ol studen oli ridim namba ia laod.

Raetem namba long bod mo askem olgeta blong talem valiu blong wanwan dijit. Naoia putum 399 long tebol blong numeresen.

Ol studen oli ridim namba ia laod. Oli raetem long wod mo oli raetem long dijit.

Mekem wan moa eksampol wetem ol studen wetem wan nara 3-dijit namba.

Letem ol studen oli talem valiu blong wanwan dijit mo afta askem oli raetem namba ia long tebol blong numeresen.

Lukim Aktiviti 1 long Wik 2 Tem 1. Mekem semak wetem namba 399 kasem 499.

Not blong Tija: Ol namba i stap go mo bigwan, sapos i gat problem wetem Yunifix Kiub yu save yusum ston o lif o yu yusum nomo tebol blong numeresen. Putum ol namba stret long kolom.

Aktiviti 2: Pas i go long Ten we i hae

Raetem tebol ia long wan jat. Ol studen oli kaontem ol namba long tebol. Afta askem olgeta blong fulumap tebol ia.

79	99	199	299	399

Aktiviti 3: Kaontem

Testem ol studen long tu taemstebol (x2) blong olgeta. Ol studen oli kaontem long 2 o oli talem tu taemstebol blong olgeta. Mekem oli luksave se oli save kaont 2 long 2 tu o 5 long 5.

Raetem long bod namba 380 mo 480 mo askem ol studen blong oli kaontem long 5 long 5 stat long 380 kasem 480.

Afta oli kaon long 50 long 50 stat long 100 kasem 400.

Aktiviti 4: Ol valiu

Soem long bod wan eksampol blong aktiviti ia we i stap long tebol daon.

Eksampol:

186

Handred	Ten	Yunit	
1	8	6	1 Handred 8 Ten 6 Yunit = 1H 8Y 6U 18 Ten 6 Yunit = 18H 6Y 186Y $100 + 80 + 6 = 186$

Go tru wetem ol studen long bod mo letem olgeta oli help blong komplitim tebol ia daon.

Handred	Ten	Yunit	
		5	5 Yunit = 5Y 5
	4	6	4 Ten 6 Yunit = 4T 6Y 46 Yunit = 46Y $40 + 6 = 46$
2	8	1	2 Handred, 8 Ten, 1 Yunit = 2H 8T 1Y 28 Ten, 1 Yunit = 28T 1Y 281Y $200 + 80 + 1 = 281$
4	9	0	
3	0	7	

Proposem semak aktiviti wetem narafala: 1, 2 o 3 dijit namba.

Aktiviti 5: Putum long oda

Givim ol defdefren namba long ol studen mo oli tingbaot i stap mo askem olgeta blong kam antap long fored mo stanap long ol stret oda blong ol namba ia olsem wanem bae oli kaontem ol namba ia.

Naoia raetem sam mo namba long bod mo askem olgeta blong putum long oda stat long smol wan i go kasem bigwan.

Givim aktiviti ia long ol studen blong oli putum long oda long buk blong olgeta:

481 494 348 397 414 367 489

Aktiviti 6: Komposem

Raetem 3 namba long bod mo wetem ol studen tokbaot mo raetem daon hamas namba oli save komposem aot long trifala namba ia.

Eksampol: 1, 5, 6, 156, 165, 516, 561, 615, 651

Givim namba 2, 3 mo 4 naoia ol studen oli mekem semak olsem long eksampol blong oli komposem evri posibol namba blong 3 dijit.

Aktiviti 7: Tekem i go antap long Ten

Raetem ol namba ia long bod mo askem ol studen blong tekem ol namba oli go antap long Ten, mo tu tekem oli kam daon long Ten.

Eksampol:

$$480 < 488 < 490$$

Mekem semak wetem:

$$\underline{\quad} < 457 < \underline{\quad}$$

$$\underline{\quad} < 472 < \underline{\quad}$$

$$\underline{\quad} < 399 < \underline{\quad}$$

Aktiviti 8: Komplitim ol bokis

Raetem tebol ia long bod mo askem ol studen oli kopi mo putum ol namba we oli no stap. Go tru long wan eksampol wetem ol studen.

	489			492		494			497		
--	-----	--	--	-----	--	-----	--	--	-----	--	--

Aktiviti 9: Putum stret saen

Mekem wan eksampol wetem ol studen bifo oli mekem aktiviti ia. Ol studen oli mas yusum stret saen long trifala ia:

<, >, =

$$369 \underline{\quad} 155$$

$$428 \underline{\quad} 428$$

$$206 \underline{\quad} 260$$

$$434 \underline{\quad} 434$$



Aktiviti 10: Dikomposem ol namba

Askem ol studen sapos oli save mining blong dikomposem (brekemdaon). Sapos no, eksplenem mining long hem mo mekem ol eksampol folem tufala eksampol ia. Afta, askem olgeta blong kopi mo fulumap tufala tebol ia.

Namba	Handred	Ten	Yunit	Wod
399	3	9	9	Tri handred naenti-naen
	4	2	0	
				Fo handred seventi-eit

182	$100 + 80 + 2$
348	
287	
418	
294	

Aktiviti 11: Lukluk mo komplitim tebol

Raetem long bod o kopi tebol ia mo askem ol studen blong fulumap ol emti bokis.

457	Fo Handred fifti-seven	4 Handred 5 Ten 7 Yunit	$400 + 50 + 7$
324			
	Fo handred foti-eit		
		4 Handred 2 Ten 5 Yunit	
			$300 + 90 + 3$

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ aedentifaem ol namba stat long 0 kasem 499?
- ◆ ridim mo raetem ol namba stat long 0 kasem 499?
- ◆ raetem long figa mo leta ol namba stat long 0 kasem 499?
- ◆ tekem ol 3-digit namba oli go antap long Ten mo tekem oli kam daon long Ten?
- ◆ dikomposem wan namba blong tri dijit ≥ 499 .

Opotuniti blong Asesmen

Ol studen oli raetem evri 3-dijit namba oli save mekem wetem 4, 2, 3, putum ol namba ia long oda mo raetem oli long leta.



2. Sep mo Anggel

Lening Aotkam: GI.3.V1 – Diskraebem ol karakteristik blong ol komon (we oli save gud) 2 mo 3-daemensen sep mo objek

Fokas blong ol Aktiviti: Ol 2D mo 3D sep

Ol Risos: Ol 2D mo 3D sep (luk long Numerasi Kit) o ol narafala sep olsem bokis masis, skwea pepa, ol Yunifiks Kiub, Woksit blong ol 3D Sep (**Apendiks 4**), kopi blong ol grid (**Apendiks 5**), pija blong ol haos long bokis, grafik pepa o pepa we i gat ol smolsmol bokis long hem

Vokabulari: Enlajem (mekem saes i kam bigwan), ridiusum (i kam smol)

Ol Lening Aktiviti

Aktiviti 12: Saed, kona mo fes

Givimaot sam Yunifiks Kiub mo rimaenem ol studen sapos oli save tokbaot wanem nao sam stori oli save mekem abaot blok ia. Askem sam kwesten blong lidim olgeta long lesen blong las tem we oli bin tokbaot kona, saed mo fes blong wan solid objek. Mekem ol studen oli talem hamas kona, hamas saed mo fes nao yunifiks blok ia i gat.

Putum ol solid sep (3D sep) long tebol fored long klasrum. Ol studen oli lukluk i go long tebol mo luk ol solid objek we yu bin kolektem. Go tru wetem ol studen hamas fes, saed mo kona wawan solid ia i gat.

Naoia givimaot Woksit blong Ol 3D Sep (**Apendiks 4**) mo givhan long ol studen we oli faenem i had long ol kala.

Aktiviti 13: Sep i jenis folem saes blong bokis

Serem fotokopi blong ol grid (**Apendiks 5**) long ol studen mo demonstretem wan eksampol long bod.

Droem wan skwea blong 5 bokis long saedsaed long Grid 1. Long Grid 2 mekem semak skwea blong 5 bokis saedsaed. Ol studen oli lukluk tufala sep ia mo oli komperem tufala.

Talem long ol studen se namba blong bokis oli semak be long Grid 2, skwea i kam bigwan from saes blong bokis i bigwan. Naoia droem wan skwea blong 6 bokis long Grid 2. Long Grid 1, mekem semak skwea. Ol studen oli lukluk tufala sep mo oli komperem.

Talem long ol studen se namba blong bokis i semak, be long Grid 1 skwea ia i kam smol from saes blong bokis i smol. Afta, askem ol studen blong mekem wanwan rektangel we longfala i 4 bokis mo softala i 2 bokis long tufala grid mo komperem.

Oli save mekem tu wanwan rektangel we longfala i 8 bokis, mo softala i 6 bokis.

Aktiviti 14: Sep i jenis folem namba blong bokis

Ol studen oli lukluk gud long pija blong ol haos long bokis: Haos 1, Haos 2, Haos 3, Haos 4.

Talem long ol studen se, hem i semfala haos be saes i go bigwan o i go smol. Ol studen oli save namem ol narafala sep we oli luk long haos.

Naolia tekem wan eksampol blong stadi long Haos 1 mo Haos 2.

Wok tugeta wetem ol studen blong fulumap tebol ia wetem namba blong ol bokis blong saed long ol pat blong ol haos.

Namba blong bokis	Windo	Doa
Haos 1	1	2
Haos 2	4	8

Talem long ol studen se long Haos 2, windo i bigwan 4 taem moa (1 bokis 4 taem, $1 + 1 + 1 + 1 = 1 \times 4 = 4$).

Semak wetem doa i bigwan 4 taem moa (2 bokis 4 taem, $2 + 2 + 2 + 2 = 2 \times 4 = 8$).

Afta, komperem ol wol blong Haos 1 mo Haos 2:

Namba blong bokis	Wol blong ol haos	
	Longfala saed	Sotfala saed
Haos 1	6	3
Haos 2	12	6

Talem long ol studen se longfala saed blong wol blong Haos 2 i bigwan 2 taem moa long Haos 1 ($6 + 6 = 6 \times 2 = 12$).

Semak wetem sotfala saed blong Haos 2 i bigwan 2 taem moa long Haos 1: ($3 + 3 = 3 \times 2 = 6$).

Afta, komperem Haos 1 mo Haos 3 olem wei yu bin komperem tufala haos i antap. Askem olgeta blong talemaot hamas bigwan blong:

- ◆ windo
- ◆ doa
- ◆ longfala saed long wol
- ◆ sotfala saed long wol

Afta, komperem:

- ◆ Haos 2 mo Haos 4
- ◆ Haos 1 mo Haos 3

Oli save mekem ol tebol mo fulumap. Sapos sam studen oli faenem i had, droem o mekem wan simpel model blong helpem olgeta.

Aktiviti 15: Mekem sep i go bigwan long grid

Ol studen oli wok long ol smolsmol grup. Givimaot long wanwan grup 2 pis grafik pepa we ol bokis oli semak saes.

Talem long ol studen blong droem wan skwea blong 3 bokis long saedsaed long Grid 1

Askem olgeta, “I gat Hamas bokis evriwan?”

Long Grid 2, droem skwea ia i bigwan moa long 2 ekstra bokis long saedsaed.

Askem olgeta, “I mekem hamas bokis evriwan?”

Afta, droem wan rektangel blong 6 bokis longfala mo 3 bokis sotfala ong Grid 1. Naoia, askem ol studen blong droem wan rektangel we i 2 taem bigwan long rektangel blong Grid 1.

Askem olgeta, “Hamas bokis i gat long longfala mo long sotfala blong rektangel long Grid 2?”

Putum ol infomesen abaot ol namba blong bokis blong ol Sep we yu bin mekem long wan tebol.

Aktiviti 16: Mekem sep i kam smol

Givim ol studen 2 grid long grafik pepa olsem long Aktiviti 15. Askem oli blong mekem wan skwea blong 6 bokis saedsaed, long Grid 1.

Askem olgeta, “I gat hamas bokis evriwan long skwea ia?”

Naoia, talem ol studen droem semak skwea i 2 taem smol long fas skwea long Grid 2.

Askem olgeta, “I gat hamas bokis insaed long skwea blong Grid 2?”

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ wanem ia saed, kona mo fes blong wan 3D sep?
- ◆ mekem sep i kam bigwan folem saes blong bokis long grid?
- ◆ mekem saes blong sep i kam smol folem saes blong bokis long grid?
- ◆ komperem mo talem bigwan blong 2 semak sep long wan grid?
- ◆ mekem wan sep i kam hamas taem bigwan folem namba blong bokis long wan grid?
- ◆ mekem wan sep i kam smol folem namba blong bokis long wan grid?
- ◆ mekem sep i kam 2 taem, 3 taem 4 taem bigwan?
- ◆ mekem kalkulesen blong faenem hamas bigwan blong wan sep?
- ◆ mekem kalkulesen blong faenem hamas smolwan blong wan sep?

Opotuniti blong Asesmen

Givim ol studen 2 grid. Long Grid 1, askem olgeta blong droem wan skwea blong 4 bokis long saedsaed. Long Grid 2, ol studen oli mekem semak sep (skwea) i bigwan mo long 2 ekstra bokis long saedsaed.



Tem 2, Wik 2

Ol Sab-stran: 1. Operesen 2. Sep mo Anggel

1. Operesen

Lening Aotkam: NO.3.V1 – Solvem ol problem we i involvem ademap, tekemaot mo multiplikesen yusum ol defren wei

Fokas blong ol Aktiviti: Ademap blong 2 mo 3 namba

Ol Risos: Tebol blong ademap

Vokabulari: Operesen, brakat

Ol Lening Aktiviti

Aktiviti 1: Luklukbak long Ademap

Long operesen ademap blong 2 namba, yu jenisim ples blong ol namba totol i stap semak

Eksampol: $10 + 5 = 5 + 10 = 15$

Askem ol studen blong komplitim ol ioperesen ia:

$$10 + 5 = 5 + \underline{\quad}$$

$$14 + \underline{\quad} = 19 + 14$$

$$\underline{\quad} + 15 = 15 + \underline{\quad}$$

$$20 + \underline{\quad} = \underline{\quad} + 20$$

Talem long ol studen se long operesen blong 3 namba, tufala fas namba blong mekem totol, ademap lasfala namba $5 + 7 + 4 = (5 + 7) + 4 = 16$ o, yu ademap tufala las namba. Mekem totol.

Obsevem:

$$5 + 7 + 4 = (5 + 7) + 4 = 16 \quad \text{o} \quad 5 + (7 + 4) = 16$$

Mekem semak wetem:

$$4 + 9 + 2 = \underline{\quad}$$

$$8 + 5 + 7 = \underline{\quad}$$

$$3 + 5 + 7 = \underline{\quad}$$

$$10 + 6 + 5 = \underline{\quad}$$

1

$$2 + 8 + 9 = \underline{\quad}$$

$$14 + 10 + 6 = \underline{\quad}$$

Eksplenem mining blong asosiativ mo komiutativiti long ol studen bifo oli mekem aktiviti ia. Kalkuletem totol blong 2 o 3 namba yusum asosiativiti mo komiutativiti blong operesen ademap. Yusum 10 long adisen blong 2 o 3 namba. Yusum asosiativiti komiutativiti mo Ten blong solvem problem we i gat adisen.

Askem ol studen blong tekem ol namba ia oli go antap long Ten.

Kalkuletem operesen:

$$23 + 7 + 19 = 30 + 19 = 49$$

Mekem semak wetem:

$$5 + 8 + 35 = \underline{\quad\quad\quad} \quad 49 + 2 + 8 = \underline{\quad\quad\quad}$$

$$34 + 18 + 6 = \underline{\quad\quad\quad} \quad 47 + 16 + 3 = \underline{\quad\quad\quad}$$

Obsevem gud:

$$26 + 9 = 26 + (4 + 5) = (26 + 4) + 5 = 30 + 5 = 35$$

Dikomposem wan namba long operesen ademap, eksampol: $9 = 4 + 5$. Raondem ol narafala namba blong operesen long 10 i go antap eksampol $26 + 4 = 30$. Nao, mekem kalkulesen $30 + 5 = 35$.

Olssem ia operesen i isi mo i kwik.

Mekem semak aninit. Dikomposem ol namba long bold. Mekem totol:

$$6 + 18 = \underline{\quad\quad\quad} \quad 25 + 8 = \underline{\quad\quad\quad} \quad 36 + 9 = \underline{\quad\quad\quad}$$

$$9 + 17 = \underline{\quad\quad\quad} \quad 7 + 27 = \underline{\quad\quad\quad} \quad 29 + 5 = \underline{\quad\quad\quad}$$

Aktiviti 2: Ademap long 12

Raetem ol operesen ia long bod mo ol studen oli sekelem ol operesen we totol i ikwel long 12:

$$5 + 5 + 2 \quad 2 + 6 + 4 \quad 8 + 8 \quad 12 + 3$$

$$9 + 6 \quad 7 + 3 + 2 \quad 11 + 5$$

Aktiviti 3: Adisen blong 3 namba

Raetem tebol ia long bod mo askem ol studen blong kalkuletem totol blong ol namba we oli stap long ol laen, long ol kolon mo long ol daeagonol.

7	24	36
53	12	25
8	39	9



Aktiviti 4: Wokemaot ol stori blong ademap

Givim wan eksampol mo wokemaot ansa blong wan stori problem long ol studen blong oli save hao blong wokemaot problem ia.

- ◆ Long wan famle i gat 12 gel mo 7 boe. I gat hamas pikinini long famle ia?
- ◆ Tu gel i go sakem huk: Nina i kasem 15 fis, Lea i kasem 12 fis mo long namba we Nina i kasem. Faenem namba blong fis we Lea i kasem.
- ◆ Nikol i pem wan pensel long 30 vt, wan raba long 15vt mo wan rula long 20vt. Hamas mane Nikol i spendem blong pem evrisamting ia?
- ◆ Mak mo Pita oli pleplei mabol. Wan wan long tufala i gat 35 mabol evriwan. Tufala i putum ol mabol wan ples. Tufala i pleplei mo winim nara 20 mabol moa. Tufala i gat hamas mabol naoia?

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ komplitim operesen ademap we i no finis?
- ◆ kalkuletem operesen ademap long laen?
- ◆ jenisim ples blong wan namba, total i stap semak?
- ◆ dikomposem wan namba blong ademap ansa i stap semak?
- ◆ dikomposem wan namba blong kalkuletem hariap wan total?
- ◆ putum ol namba long ten bifo ademap?
- ◆ yusum operesen ademap long problem situesen?

Opotuniti blong Asesmen:

Hemia wan operesen ademap: $27+10+13$.

Ol studen oli mas mekem wan stori wetem wan kwesten mo ansa.

2. Sep mo Anggel

Lening aotkam: GI.3.V.1 – Komperem mo diskraebem karakteristik blong 2 mo 3D sep mo objek

Fokas blong ol Aktiviti: Introdiumum ol anggel

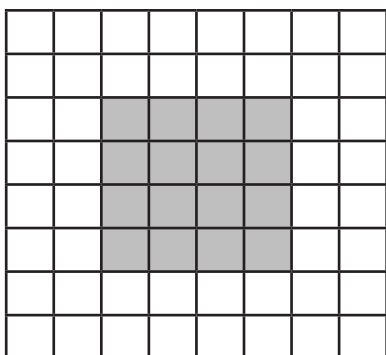
Ol Risos: Rula, setskwea, grid pepa, anggel we oli katemaot long wan katen o strong pepa, ol sep we oli katemaot long katen, daemon grid (**Apendiks 7**)

Vokabulari: Grid, skwea, bokis, daeman, laen, saed, kona, anggel, raet anggel

Ol Lening Aktiviti

Aktiviti 8: Droem wan Skwea

Soem wan skwea insaed long wan grid.

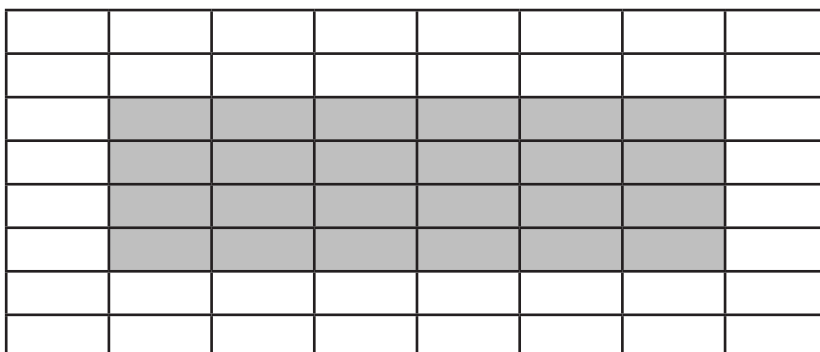


Askem ol studen blong riprodiumum semak long eksesaes buk o long saed blong slet we i gat ol smol bokis.

Aktiviti 9: Droem rektanggel long grid

Soem ol studen wan rektanggel insaed long wan grid.

Askem ol studen blong riprodiumum sep ia olsem Aktiviti 8.



Aktiviti 10: Droem rektangel wetem grid

Ol studen oli yusum pepa o buk we i gat smol bokis long hem.

Putum 4 poen: 1, 2, 3, 4 long ol kros laen. Bitwin poen 1 mo poen 2 i gat 3 smol bokis. Bitwin 1 mo 4 i gat tu smol bokis. Droem ol saed 1, 2, 3, 4, 1 blong mekem wan rektangel.

Afta talem long ol studen long eksesaes buk o long wan grid pepa, putum 2 poen, A mo B, long sem vetikel laen. Talem long olgeta bitwin tufala i gat 4 smol bokis. Nao droem wan rektangel aot long A mo B.

Nekis mekem wan narafala rektangel. Oli putum wan poen, E. Talem long olgeta blong droem wan rektangel we i aot long E. Wan long ol kona blong hem i G.

Aktiviti 11: Tingting blong anggel

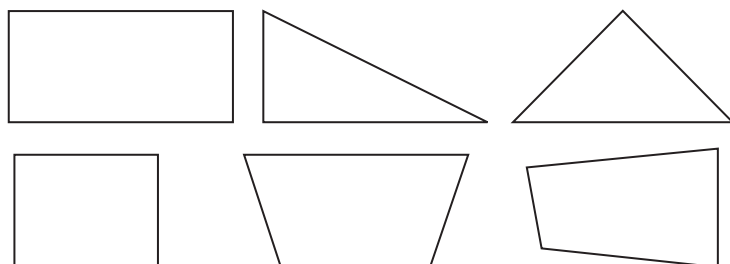
Givim long ol studen wan buk o wan pepa we i skwea o i rektangel sep.

Mekem ol studen oli soem ol kona blong ol sep ia.

Ol studen oli soem ol anggel we i gat long klasrumolsem long kabod, long wan katen o bokis, kontena mo samfala mo.

Aktiviti 12: Anggel

Givimaot samfala sep olsem olgeta ia long fotokopi o samfala sep we oli katemaot long katen o pepa we i strong lelebet. Askem ol studen blong kalarem ol kona mo soem ol anggel.



Talem long ol studen se wan anggel hem i wan kona blong wan sep we i gat fulap saed.

Aktiviti 13: Droem anggel

Riprodiusum wan anggel long bod. Soem long ol studen ol saed blong anggel ia mo sap kona (sommet) blong hem.

Afta ol studen oli droem sam anggel long slet o long eksesaes buk blong olgeta.

Soem samfala eksampol blong anggel insaed long klasrum, olsem bod, kabod, katen, tebol o samfala moa.

Aktiviti 14: Setskwea

Soem long klas tul blong mesarem wan angel. Soem ol defren angel blong hem mo talem se hemia hem i wan “raet angel”. Soem long klas folem long fingga ol saed blong sekskwea.

Soem raet angel mo folem long fingga ol saed blong hem.

Aktiviti 15: Raet angel

Droem samfala raet angel long bod long defren posisen, yusum rula mo setskwea.

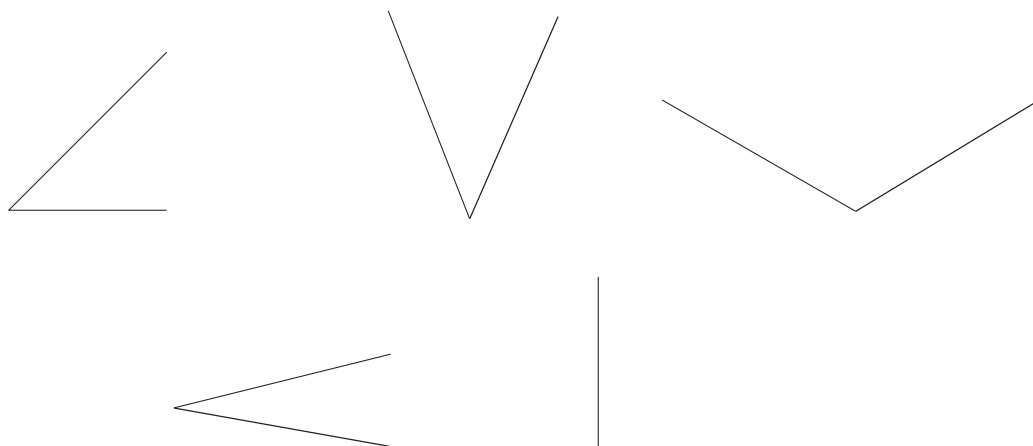
Putum setskwea long ol angel ia. Soem ol saed blong setskwea i go wetem ol saed blong angel.

“Hemia i wan **raet angel**”.

Aktiviti 16: Komperem ol angel

Droem samfala angel long bod.

Eksampol:



Askem sam studen blong yusum tul blong mesarem angel. Oli sud putum raet kona blong tul ia i go long wanwan kona blong ol narafala angel we i stap long bod mo talem sapos i raet angel o no.

Aktiviti 17: Droem skwea long grid pepa.

Rere long 2 grid long bod o long wan bigfala pepa o flip jat: wan wetem ol smol skwea bokis, nara wan wetem ol smol daeman bokis (luk **Apendiks 7**).

Long fas grid, wan studen i droem wan skwea folem ol vetikel mo horisontol laen. Hem i riprodusum semfala sep ia insaed long nambatu grid.

Komperem tufala sep ia mo askem long ol studen sapos nambatu sep tu i wan skwea.

Kaontem namba blong ol smol skwea o bokis long ol saed blong wanwan sep (4 skwea).
Kaontem ol laen o saed (4) mo ol angel (4).

Mekem ol studen oli komperem ol angel wetem setskwea.

Talem sep long fas grid i wan skwea from hem i gat angel we i raet angel.be sep long nambatu grid i no wan skwea from ol angel blong hem i no raet angel.

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ droem ol sep skwea long wan grid mo putum nem long hem?
- ◆ droem rektangel long wan grid mo putum nem long hem?
- ◆ kona blong ol sep?
- ◆ faenemaot ol narafala sep we i kamaot long ol sep skwea mo rektangel afta we oli foldem folem ol kona blong sep?
- ◆ komperem tu sep taem oli putum wan antap long narawan mo talem se oli semak o no?
- ◆ luksave wan raet angel long ol nara angel?

Opotuniti blong Asesmen

Givim sam sep long ol studen blong oli kalarem ol raet angel.

Tem 2, Wik 3

Ol Sab-stran: 1. Operesen 2. Paten

1. Operesen

Lening Aotkam: NO.3.V1 – Solvem ol problem we oli involvem ademap tekemaot mo multiplikesen yusum ol defren wei

Fokas blong ol Aktiviti: Ademap wetem karem i go long nekis yunit

Ol Risos: Tebol blong numeresen, jat blong ol namba, ol Yunifiks Kiub

Vokabulari: Karem, Yunit

Ol Lening Aktiviti

Aktiviti 1: Ademap wetem karem i go long nekis yunit

Raetem operesen ia long bod

$$128 + 14.$$

Ol studen oli yusum tebol blong numeresen mo putum operesen long stret kolom

	Handred	Ten	Yunit
+	1	(1) + 2	8
+	0	1	4
=	1	4	(1) 2

Ol studen oli ridim operesen mo oli eksplenem mining blong wanwan dijit.

Not blong tija: Yu save yusum ol Yunifiks Kiub blong helpem olgeta oli andestanem tingting ia

Ol studen oli talem gud se, “Long kolom blong ol Yunit i gat 8 mo 4 i mekem 12 Yunit.”

Raetem 12 ia long wan kona blong bod. Askem ol studen blong talem mining blong 1 mo 2 (12) → 1 Ten 2 Yunit.



Long operesen, 2 i stap aninit long total blong ol Yunit. Afta 1 yu karem i go long nekis kolom, Ten.Yumi putum i go daon 1 hundred i mekem 1 hundred 4 Ten mo 2 Yunit = 142

Ridim ansa: 142.

Givim mining blong 1, 4 mo 2. Afta, raetem long leta: wan hundred foti-tu.

Kalkuletem tugeta o hemwan ol operesen ia:

$$109 + 1 \qquad 116 + 50 + 18 \qquad 327 + 138 \qquad 54 + 439$$

Afta, mekem semak be we operesen i gat karem i go long nekis hundred:

$$262 + 181 \qquad 135 + 70 + 204 \qquad 365 + 92 \qquad 321 + 87$$

Aktiviti 2: Ademap 2 o 3 namba o 2 o 3 dijit

Askem ol studen blong kalkuletem ol operesen ia:

$$\begin{array}{r} 19 \\ + 17 \\ \hline \end{array} \qquad \begin{array}{r} 137 \\ + 28 \\ \hline \end{array} \qquad \begin{array}{r} 174 \\ + 45 \\ \hline \end{array}$$

$$\begin{array}{r} 50 \\ 128 \\ + 17 \\ \hline \end{array} \qquad \begin{array}{r} 134 \\ 87 \\ + 106 \\ \hline \end{array} \qquad \begin{array}{r} 209 \\ 112 \\ + 27 \\ \hline \end{array}$$

Aktiviti 3: Putum long kolom

Raetem ol operesen ia long wanwan laen nomo

$$117 + 75 \qquad 106 + 16 \qquad 149 + 11 \qquad 378 + 12 \qquad 464 + 17$$

Askem ol studen oli putum long kolum afta oli wokemaot. Afta wanwan operesen korektem tugeta long bod.

Aktiviti 4: Ademap ol problem

Putum ol studen long grup blong 4. Mo talem namba stori ia:

Pita i gat 15 red mabol mo 56 grin mabol. Hamas mabol evriwan i gat?

Yusum sid o ston sapos mabol i nogat. Droem o mekem stori ia.

Kalkuletem operesen mo ansa long kwesten.

Ol studen oli serem tingting mo wanwan grup i presentem ansa blong hem.

Aktiviti 5: Tingting blong ademap (risening)

Talem long ol studen stori ia:

Tom, Paul mo Sam oli go huk long reva. Tom i kasem 95 fis, Paul i kasem 127 fis mo Sam hem i kasem 117 fis. Hamas fis oli kasem long dei ia?

Askem ol studen blong mekemap o droem stori. Kalkuletem operesen mo ansa long kwesten.

Aktiviti 6: Mekemap stori

Ol studen oli mekemap wan problem situesen blong olgeta wetem tufala namba ia 216 mo 109. Afta wan grup i eksjenj wetem wan narafala grup mo hem bae i ansa long kwesten blong problem.

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ Faenem total blong 2 grup we yumi putum tugeta?
- ◆ Askem ol kwesten?
- ◆ Kalkuletem wan operesen ademap wetem karem i go long nekis yunit o handred
- ◆ Droem ol pija long wan namba stori blong olgeta?
- ◆ Yusum ol konkrit materiel blong helpem olgeta blong wokemaot ol ansa blong ol operesen?

Opotuniti blong Asesmen

Givim 2 o 3 simpol dijit namba long olgeta blong oli mekem wan ademap stori we oli mas karem i go long nekis yunit. Oli solvem problem ia.



2. Paten

Lening Aotkam: PT.3.V1 – Krietem, diskraebem mo finisim ol defren kaen paten yusum ol namba sep mo tradisonal disaen

Fokas blong ol Aktiviti: Mekem ol paten

OI Risos: konkrit materiel, paten stret yumi bin harem , paten we yumi lukim, paten wetem list blong namba we i go bigwan o namba we i kam daon long smol namba, paten we yumi kaontem long $2/2$, $5/5$, $10/10$

Vokabulari: Konkrit materiel, paten

OI Lening Aktiviti

Aktiviti 7: Paten blong miusik

Putum wan miusik mo askem ol studen oli lisin gud mo mekem wan paten long wanem oli hraem. Sapos ol studen oli faenem i had blong harem, kilim wan objek blong hem i luksave bit blong miusik.

Aktiviti 8: Paten wetem namba

Raetem paten ia long bod

1, 3, 6, 9, 11, 14, 17, 20, _____, _____, _____, _____.

Ridim laen long namba mo askem olgeta blong obsevem paten ia. Afta oli finisim laen.

Aktiviti 9: Paten long $2/2$

Raetem ol namba ia long bod,

Lukluk gud long paten ia mo askem ol studen blong finisim.

2, 4, 6, 8, _____, _____, _____, _____, _____, _____ ... 32

Afta givhan long ol studen blong mekem paten wetem $5/5$ o $10/10$.mo go long big namba o i kam long smol namba.

Aktiviti 10: Kaontem i go bak long smol namba

Raetem ol list blong ol namba ia, mo askem ol studen blong lukluk gud long olgeta.

Talem olsem wanem oli kaontem mo komplitim ol list:

8, 7, 6, 5, _____, _____, 2, _____

11, 10, _____, 8, 7, _____, _____

13, 12, _____, _____, 9, _____, _____, 6, _____

20, _____, _____, _____, _____, _____, 14, _____

Aktiviti 11: Kaontem i go antap

Raetem ol list blong ol namba ia mo askem ol studen blong lukluk gud long olgeta.

Talem olsem wanem oli kaontem mo komplitim ol list ia

7, 8, 9, _____, 11, 12, _____, _____, 15.

1, _____, 3, 4, _____, 6, _____, 8, 9.

5, 6, _____, 8, _____, _____, _____, 12, 13.

14, 15, _____, 17, _____, 19, _____, 21, _____

Aktiviti 12: Stret namba

Raetem long bod o kopi ol namba paten ia mo askem ol studen blong putum stret namba long bokis:

1, 2, 3, 4, 5, _____

2, 4, 6, 8, _____

23, 25, 27, _____

80, 70, 60, _____



Aktiviti 13: Paeret mo mani

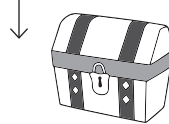
Mekem o kopi long gem ia mo givimaot long ol studen. Oli mas faenem paten we oli mas folem blong helpem paeret i go kasem tresas.

Lukluk gud. Finisim blong kalarem rod we i go kasem bokis mani.

Talem wanem namba paten nao Paeret i folem blong go from tresas?



7	9	9	11	17	19	22	8
5	11	10	7	26	25	9	11
9	13	15	17	6	22	13	18
6	5	8	19	28	4	17	2
27	25	23	21	10	9	5	4
29	9	7	18	12	7	6	1
31	9	11	41	43	45	47	49
33	35	37	39	26	8	3	51



Sapos yu wantem, yu save mekem wan narafala tebol wetem grid blong 8 namba long wanwan saed. Fulumap wetem samfala 3 dijit namba. Mekemsua se yu putum stret namba we i mekem paten blong rod fastaem. Putum ol narafala handred namba long ol emti bokis, olsem eksampol antap. Droem wan dog long stat blong rod (long top blong tebol) wan mit long en blong rod (daon long tebol). Askem ol studen blong talem wanem paten blong rod.

Aktiviti 14: Paten wetem ol sep

Droem paten ia long bod mo askem long ol studen, “Wanem i kam afta long traenggel?”



Ol studen oli save gohed wetem paten long buk blong olgeta.

Aktiviti 15: Paten wetem ol saen.

Droem paten ia long bod mo askem long ol studen blong putum korek saen long bokis:

→ ↓ × ↓ → ↓ × ↓ → ↓ × ↓ → ↓ × ↓ → ↓ × ↓ →

Aktiviti 16: Paten wetem saen mo sep

Droem paten ia long bod mo askem ol studen blong putum korek saen long bokis.

+ || = Δ + || = Δ + || = Δ _____ || = Δ +

Aktiviti 17: Paten wetem simbol

Droem paten ia long bod mo askem ol studen blong putum korek saen long bokis.

☺ ☀ ♦ Δ ♥ ☹ _____

Sapos ol studen oli faenem i had, katemaot sep ia blong helpem olgeta.

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ Wanem ia wan paten?
- ◆ Faenem paten long ol noes blong envaeromen blong olgeta?
- ◆ Faenem paten long ol miusik ?
- ◆ Faenem paten long ol long ol komyuniti mo long ol tradisenel disaen blong olgeta?
- ◆ Krietem ol orol paten aot long miusik?
- ◆ Luksave paten insaed long pis miusik?
- ◆ Paten long ol pepa o spes we man i raetem o kalarem?
- ◆ Faenem wan paten long namba insaed long wan list o long wan grid?

Opotuniti blong Asesmen

Ol studen oli yusum paten disaen blong flasem wol blong nakamal blong skul, folem projek blong wan miusik naet long skul.

Tem 2, Wik 4

Ol Sab-stran: 1. Probabiliti 2. Fraksen

1. Probabiliti

Lening Aotkam: CDP.3.V1 – Aedentifaem, sotem mo diskraebem ol ivent long evridei laef we i involvem janis.

Fokas blong ol Aktiviti: Prediksen

Ol Risos: Ol kadbod blong mekem ol kad, 1 basket, 9 Yelo Yunifiks Kiub, 3 Blu Yunifiks, 3 red Yunifiks Kiub

Vokabulari: Ivent, hapen, maet, neva, ating, bae i hapen, i save hapen, i no save hapen, i gat janis blong i hapen, i no save gat janis blong i hapen

Ol Lening Aktiviti

Aktiviti 1: Prediksen long ol saen

Askem ol studen blong tingbaot ol stetmen ia mo yusum stret toktok: bae i hapen, i save hapen, bae i neva hapen.

- ◆ Manggo tri i flawa gud, nekis yia bae yumi kakae gud manggo?
- ◆ Kahkros oli flae olbaot, rein bae i foldaon i no long taem?
- ◆ Pita i go huk mo solwota i kwaet, bae hem i kasem fulap fis?
- ◆ Tedei ol man oli kasem salari bae i gat fulap man i kam pem kakae.

Aktiviti 2: Prediktem kala

Putum 2 red kiub mo 4 yelo kiub long wan kontena.

Ol studen i oli prediktem wanem kala bae i kamaot faswan?

Raetem nem blong ol studen long wan big pepa. Wanwan i kam prediktem long kala mo pulum kiub.

Rikodem long risal. Sapos wan i pikimap wan stret kala = 1 , sapos i no stret kala = 0.

Eksampol :

Nem	Esta	Kalo	Sam	Lina
Hamis yelo kiub?				
Hamis Red kiub?				

Aktiviti 3: Prediktem namba

Ol studen oli mekem smol grup blong 4.

Givim daes long wanwan grup mo 1 big pepa blong rikodem ol risal.

Fastaem oli mas prediktem wan namba. Afta oli sakem daes mo lukluk se wanem namba. sapos hem i kasem namba we hem i prediktem = 1 ; sapos no = 0

Raon ↓	Ruth	Eva	Willy	John
1				
2				
3				
4				
Totol				

Oli save pleiplei namba blong raon we oli wantem. Mekem totol bifo oli tokbaot wanem oli go tru long hem.

Aktiviti 4: Prediktem en blong wan stori

Talem wan stori long ol studen be no talem en blong stori ia.

Ol studen long grup blong 2 oli prediktem en blong stori ia afta oli go ridim long klas.

Faenemaot en blong stori blong faenemaot se wijwan grup i talem en we i stret gud long storian ia.



Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ yusum ol toktok blong prediksen olsem: i save hapen i gat janis blong hapen, i nogat janis blong i hapen?
- ◆ wanem hem ia prediktem wan samting?
- ◆ prediktem long ol samting we i “save hapen, mo i no save hapen?
- ◆ prediktem se bae wanem bae i hapen nekis long stori?
- ◆ prediktem kala long wan gem?
- ◆ prediktem namba long wan gem?
- ◆ mekem wan tebol blong soem wij wan namba nao i kamaot plante taem long wan gem?
- ◆ prediktem wanem i save hapen, i maet hapen mo i no save hapen?
- ◆ diskasem ol prediksen blong olgeta long grup?

Opotuniti blong Asesmen

Raetem prediksen blong olgeta abaot ol plant afta long wan bigfala san long taem blong drae sisen.

2. Fraksen

Lening Aotkam: NF.3.V1 – Serem koleksen blong objek i go long ikwel pat

Fokas blong ol Aktiviti: Serem wan objek

OI Risos: Skwea, sekol, oval, traeeangel, rektangel

Vokabulari: Haf, kwata, fulwan, pat

OI Lening Aktiviti


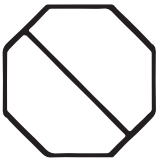
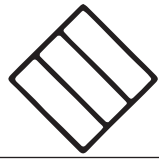
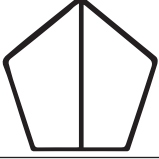



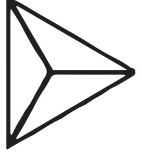

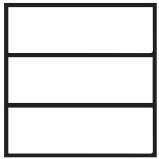

Aktiviti 4: Luklukbak long tingting blong serem

Blong mekemsua se ol studen oli save gud tingting blong serem, droem ol situesen ia yusum ol sep. Serem sam pat aot long:

- ◆ 1 pis
- ◆ 2 pis
- ◆ 3 pis
- ◆ 4 pis
- ◆ 6 pis
- ◆ 8 pis

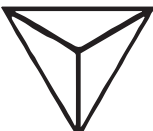

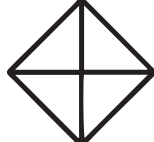
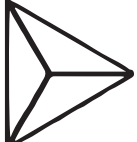

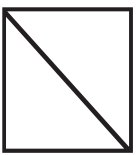



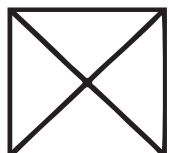
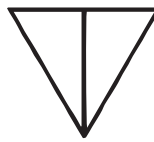




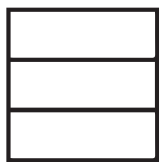
Aktiviti 5: Serem long 2 pis, haf

Askem ol studen blong faenem ol sep we oli katem long 2 pis. Afta oli kalarem.haf blong olgeta. Raetem long bod: 1 aot long 2 = $\frac{1}{2}$.

1.			
2.			
3.			
4.			

Aktiviti 6: Serem long 3 pis

Askem ol studen blong faenem mo sekolem ol sep we oli katem long 3 pis. Sapos ol studen oli faenem i had katemaot sep blong givhan long olgeta.

1.			5.		
2.			6.		
3.			7.		
4.			8.		

Aktiviti 7: Serem long 4 pis

Askem ol studen blong faenem ol sep we oli katem olgeta long 4 pis. Oli kalarem 1 pis.

Raetem long bod 1 at long 4 = $\frac{1}{4}$.

1.			
2.			
3.			
4.			
5.			

Ativiti 8: Katem sep wetem laen blong simetri

Long aktiviti ia yu save givim ol kad we ol sep oli stap long hem long ol studen o askem olgeta oli wok long pepa o slet blong olgeta.

Askem olgeta blong droem wan rektangel. Afta talem se droem 1 laen blong simetri. Askem ol studen se, hamas pis yu gat nao?

Kalarem 1 nara pis bakegen. Askem hamas pis evriwan wetem wan pis long aktiviti 8?

Raetem fraksen we i representem ol pis we yu kalarem evriwan.

Aktiviti 9: Simetrik long esp

Kontiniu wetem semfala sep blong aktiviti 8. Droem namba 2 laen blong simitri. Askem long ol studen se hamas pis yu gat nao?

Kalarem 1 nara pis bakegen. Askem yu kalarem hamas pis evriwan wetem pis long aktiviti 8?

Raetem fraksen we i representem ol pis we yu kalarem evriwan.

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ luksave ol haf blong wan ful objek?
- ◆ faenem ol haf blong ol pija o objek?
- ◆ kala long ol haf sep?
- ◆ ol haf blong ol namba?
- ◆ divaedem ol sep long $\frac{1}{2}$ mo $\frac{1}{4}$ mo $\frac{1}{3}$?
- ◆ luksave namba blong pis we yu tekem oli kalarem aot long 3 pis, 4 pis, 5 pis?

Oportuniti blong Asesmen

Givim toktok ia long ol studen “aot long 5”. Ol studen oli mas mekem wan stori mo ansarem ol kwesten.

Tem 2, Wik 5

Ol Sab-stran: 1. Longfala, Weit mo Kapasiti 2. Ful Namba

1. Longfala, Weit mo Kapasiti

Lening Aokam: MLWC.3.V1 – Estimetem, mesarem, komperem mo diskasem weit mo kapasiti blong ol ting yusum ol standed metod

Fokas blong ol Aktiviti: Ol yunit blong longfala

Ol Risos: Ol kaen rula, stik, kaliko, rop

Vokabulari: Longfala saed, sofala saed, sotwan moa, longwan moa

Ol Lening Aktiviti

Aktiviti 1: Rula

Presentem ol defren rula blong ol defren 1m long ol studen mo askem olgeta blong obsevem ol rula ia mo talem ol karekteristik blong olgeta. Oli mekem wud, aean, plastik, riben, mo samfala moa.

Aktiviti 2: Hu i yusum wanem?

Raetem tufala list ia long bod mo askem ol studen droem wan aro stat long fas list i go long nambatu list.

- | | |
|---------------------------|-------------------|
| ◆ Tija | ◆ Stedimita |
| ◆ Man o woman blong somap | ◆ Mita long riben |
| ◆ Spotsman | ◆ Rula 30sm |
| ◆ Dokta | ◆ Rula 1m (bod) |
| ◆ Studen | ◆ Dekamita |

Aktiviti 3: Mekem wan mita (m)

Wetem rula blong bod, tresem wan laen bitwin 0 mo 1. Talem long ol studen se yumi tresem wan laen i mesarem **1 mita = 1m**.

Soem defdefren objek o laen blong 1m. Putumap long wol blong klasrum.



Aktiviti 4: Mesarem wan pis kaliko

Aksem long ol studen blong jusum wijwan kaen rula blong mesarem sotfala saed mo longfala saed blong pis kaliko.

Afta ol studen oli mesarem wanwan saed blong pis kaliko mo ridimaot ol mesamen we oli faenem.

Askem long olgeta wanem man o woman we i stap yusum tul ia.

Aktiviti 5: Mesarem, komperem mo putum long oda

Ol studen oli mesarem defdefren longfala blong ol objek long klasrum. Soem gud se 0 i mas stap stret long en blong objek we oli mesarem.

Oli rikodem ol ansa mo komperem longfala blong ol objek ia. Afta oli putum olgeta long oda stat long sotfala i go long longfala.

Aktiviti 6: Estimetem long “m”

Long aktiviti ia ol studen oli lanem blong ges long wan namba blong mita.

Toktok we bae hem i lanem blong talem hem i, “Rop ia i klosap 2m” o “tri ia i klosap 7m”.

Ol studen oli traem ges long mesarem blong mita, (m) long ol objek ia

Ol objek	Mesamen we oli estimetem long hem	Stret mesamen	Estimesen i stret = 1 i rong = 0
Longfala blong klasrum			
Hae blong wan tri			
Sotfala blong klasrum			
Saed blong wan wol			

Aktiviti 7: Longfala i no wan ful namba blong mita

Priperem sam samting olsem: stik, rop, longfala mo sotfala blong sam kapbod, tebol mo bod.

Ol studen oli mesarem mo talem, “Mesamen blong rop ia i bitwin 3m mo 4m”.

Mekem semak wetem ol narafala objek.

Aktiviti 8: Desimita

Soem rula blong 1m. Mekem ol studen oli obsevem ol namba stat long 0 kasem 100.

Talem long ol studen bitwin tu namba i gat 1 desimita = 1dm.

Studen i kaontem hamas desimita (dm) i gat long rula blong 1m? **Ansa:** 10dm.

Raetem toktok ia desimita mo saen blong hem (dm).

Aktiviti 9: Soem desimita long rula

Soem desimita long bigfala rula (1m), mo long smol rula blong olgeta (2dm o 3dm).

Talem long ol studen blong tresem longfala ia long tugeta rula. Afta oli komperem tufala longfala ia.

Aktiviti 10: Komperem desimita

Ol studen oli droem smol rula blong hem long pepa. afta oli soem long droing hamas desimita rula blong hem i gat: 1dm, 2dm, 3dm?

Kalarem olgeta desimita ia. mo katem longfala blong wanwan desimita.

Putum wan pis antap long narafala wan. Komperem ol pis: oli semak.

Joenem bak ol pis pepa, raetem totol blong **dm** (Ful rula= **2dm o 3dm**).

Aktiviti 11: Mesarem wetem Yunit desimita

Askem ol studen blong mesarem longfala mo sotfala saed blong tebol blong olgeta, eksasaes buk, buk, hae blong bokis mo sam narafala objek.

Oli rikodem ol ansa mo putum long oda stat long smolwan i go long bigwan.

Aktiviti 12: Komperem mita mo desimita

Soem tu rop, wan blong 1m mo narawan blong 1dm.

Ol studen oli obsevem mo talem, “**1m** i moa longfala bitim **1dm**” o, “1dm i sotfala bitim 1m”.

Raetem mo ridim tu wetem ol saen ia:

$$1\text{m} > 1\text{dm}$$

$$1\text{dm} < 1\text{m}.$$



Aktiviti 13: Sentimita

Mekem semak aktiviti olsem wetem yunit desimita, aktiviti 8 kasem 12.

Soem rula blong 1m. Mekem ol studen oli obsevem ol namba stat long 0 kasem 100.

Talem bitwin tu namba i gat 10 sentimita = 10sm.

Aktiviti 14: Mita, desimita, sentimita

Talem bakegen mesamen blong bigfala rula: $1\text{m} = 10\text{dm}$

Nao lukluk gud long bigfala rula. Wanem yunit i stap long bigfala rula? Sm, sentimita.

Askem olgeta hamas sentimita yu save luk mo ridim long bigfala rula? 100 sm.

Talem: 1 mita hem i ikwel long 10 desimita, $1\text{m} = 10\text{dm}$

1mita hem i ikwel long 100 sentimita, $1\text{m} = 100\text{sm}$

Aktiviti 15: Tebol blong mesamen longfala:

M	Dm	Sm
1	0	
1	0	0
	1	0

Droem tebol ia blong jenisim long mita, desimita mo sentimita. mo putum olsem:

$$1\text{m} = 10\text{dm}$$

$$1\text{m} = 100\text{sm}$$

$$1\text{dm} = 10\text{sm}$$

Ol studen oli traem raetem wetem sam narafala namba:

$$4\text{m} = \underline{\quad}\text{dm}$$

$$4\text{m} = \underline{\quad}\text{sm}$$

$$4\text{dm} = \underline{\quad}\text{sm}$$

Oli yusum konvesen tebol blong mesarem longfala blong ol samting we oli mesarem.

Oi Kwesten blong Asesmen

Oi studen oli save:

- ◆ Oi defren tul blong mesarem longfala?
- ◆ Man mo woman i yusum wanem kaen tul blong mesarem longfala?
- ◆ Mita olsem yunit blong mesarem longfala?
- ◆ Desimita olsem yunit blong mesarem?
- ◆ Sentimita olsen yunit blong mesarem?
- ◆ Putum ol yunit blong mesamen long oda stat long smolwan i go long bigwan?

Opotuniti blong Asesmen

Oi studen oli lukluk long eksampol:

$$1\text{m} = 10\text{dm}$$

$$1\text{m} = 100\text{sm}$$

Mekem semak wetem:

$$6\text{dm} = \underline{\quad}\text{sm}$$

$$9\text{m} = \underline{\quad}\text{sm}$$

$$7\text{m} = \underline{\quad}\text{sm}$$



2. Ful Namba

Lening Aokam: NWN.3.V1 – Ridim, raetem,riprisentem mo putum long oda ol ful namba kasem long 599, yusum difren materiel

Fokas blong ol Aktiviti: 499 kasem 599

Ol Risos: Tebol blong numeresen

Vokabulari: Faev hundred kasem faev hundred naenti-naen

Ol Lening Aktiviti

Aktiviti 1: Introdium 500

Raetem operesen ia long bod:

$$499 + 1 = \underline{\quad}$$

Ol studen oli kaontem tugeta long tebol blong numeresen mo talem mining blong wanwan dijit.

Aktiviti 2: Ol operesen blong 500

Askem ol studen blong komplitim ol operesen ia we i mekem 500

$$200 + \underline{\quad} = 500$$

$$100 + \underline{\quad} = 500$$

$$495 + \underline{\quad} = 500$$

$$480 + \underline{\quad} = 500$$

$$470 + \underline{\quad} = 500$$

$$493 + \underline{\quad} = 500$$

$$483 + \underline{\quad} = 500$$

$$473 + \underline{\quad} = 500$$

Aktiviti 3: Kaontem

Ol studen oli kaontem laod o oli save raetem daon

Kaont stat long

50 stat long 50 kasem 550

10 stat long 480 kasem 590

25 stat long 275 kasem 575

Aktiviti 4: Dikompos

Ol studen oli folem eksampol mo mekem semak long ol narafala namba.

515	Faev handred mo fiftin	5 handred 1 Ten 5 Yunit	$500 + 10 + 5$
456			
569			
201			

Aktiviti 5: Ridim ol namba

Talem long ol studen blong lukluk long eksampol mo mekem semak long ol narafala namba:

516	5 handred 1 Ten 6 yunit	5 handred mo 16 yunit	51 Ten 6 yunit
379			
498			
597			
502			

Afta putum ol namba ia long abakas yusum lid blong botel mo oli ridim olgeta.

Aktiviti 6: Komperem tufala namba

Yusum tebol blong numeresen blong komperem ol namba mo putum stret saen:

< > =

515 ____ 551

124 ____ 278

507 ____ 517

575 ____ 575

546 ____ 564

379 ____ 560



Aktiviti 7: Tekem i go antap mo tekem i kam daon

Raetem tebol ia long bod mo askem ol studen blong tekem ol namba we i stap long medel kolom tekem oli go antap long nekis handred mo tekem oli kam daon long handred

Handred bifo	Namba	Handred afta
	201	
	369	
	479	

Not long tija: Yu save givim semak aktiviti wetem ol narafala namba we oli tekem i go antap long Ten o kam daon long Ten.

Aktiviti 8: Raetem long namba mo wod

Askem ol studen blong raetem ol namba ia long wod o figa.

Faev handred mo teti-tri → _____

574 → _____

555 → _____

faev handred mo naenti-sikis _____

Faev handred mo wan → _____

508 → _____

Aktiviti 9: Mekemap namba

Raetem trifala namba ia long bod mo askem ol studen blong komposem evri posibol namba wetem

5, 4, 3

Aktiviti 10: Stori

Talem long ol studen stori ia:

Annie i wantem pem ol samting olsem: 1 sunglas long 560vt, wan smol jea 425vt, wan jen long 95vt mo wan hat long 380vt. Wanem samting nao praes blong hem i mo bigwan bitim ol narafala wan? Wanem samting nao praes blong hem i mo smol long ol narafala wan?

Afta oli ansarem ol kwesten ia, oli save putum ol praes stat long smol wan i go kasem bigfala praes mo stat long bigfala wan kamdaon long smol wan.

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ ridim mo talem ol 3-dijit namba kasem 599?
- ◆ krietem evri namba wetem 3-dijit namba?
- ◆ Talem mining blong ol dijit long wan 3-dijit namba?
- ◆ Raetem wan 3-dijit namba long figa mo long wod?
- ◆ Putum wan 3-dijit namba long oda stat long smolwan i go kasem bigwan mo i stat long bigwan i go kasem smolwan bakegen?
- ◆ Tekem ol 3-dijit namba i go antap long Ten mo hundred o oli kam daon?

Opotuniti blong Asesmen

Ol studen oli putum ol namba ia long oda mo raetem wanwan long wod:

548	345	483
458	584	543



Tem 2, Wik 6

Ol Sab-stran: 1. Operesen 2. Handelem Data

1. Operesen

Lening Aotkam: NO.3.V1 – Solvem ol problem we oli involvem ademap tekemaot mo multiplikesen yusum ol defren wei

Fokas blong ol Aktiviti: Tekemaot

Ol Risos: Tebol blong numeresen, tebol blong tekemaot, ol ston, sid

Vokabulari: Tekemaot, givimaot, givim, hamas i stap

Ol Lening Aktiviti

Aktiviti 1: Ademap mo tekemaot

Ol Studen oli kalkuletem operesen ia:

$$9 + 4 = 11$$

Soem olsem wanem blong mekem operesen ademap i kam operesen tekemaot:

$$9 + 2 = 11 \rightarrow 2 \text{ hem i defrens bitwin } 11 \text{ mo } 9 \rightarrow \text{Hemia saen blong defrens: } \\ 11 - 9 = 2$$

2 wei blong kalkuletem defrens:

$$9 + \underline{\quad} = 11 \qquad 11 - 9 = \underline{\quad}$$

Soem olgeta studen i mas save se blong kalkuletem defrens blong 2 namba, hem i save komplitim wan operesen ademap o hem i save mekem wan operesen tekemaot.

Mekem oli komplitim:

$$9 + 2 = 11 \qquad 11 - 9 = 2$$

Aktiviti 2: Risening + o –

Raetem ol operesen ia mo askem ol studen blong putum saen + o saen –

$7 \text{ ___ } 3 = 4$

$30 \text{ ___ } = 23$

$18 \text{ ___ } 8 = 26$

$15 \text{ ___ } 9 = 6$

$20 \text{ ___ } 20 = 40$

$80 \text{ ___ } 10 = 90$

$49 \text{ ___ } 6 = 45$

$19 \text{ ___ } 10 = 29$

$75 \text{ ___ } 5 = 70$

Aktiviti 3: Tekemaot (–)

Tugeta wetem ol studen lukluk olsem wanem yu save kalkulatem operesen ia: $46 - 34$.

Eksampol:

$$\begin{array}{r} 34 \\ + 12 \\ \hline 46 \end{array} \quad \begin{array}{r} 46 \\ - 34 \\ \hline 12 \end{array}$$

Afta, askem olgeta blong mekem semak wetem:

$65 - 32 =$

$59 - 37 =$

$88 - 46 =$

$64 - 52 =$

$54 - 43 =$

$73 - 51 =$

$57 - 34 =$

$97 - 65 =$

Aktiviti 4: Operesen tekemaot

Askem ol studen blong kalkuletem ol operesen ia:

$$\begin{array}{r} 36 \\ - 24 \\ \hline \end{array} \quad \begin{array}{r} 89 \\ - 56 \\ \hline \end{array} \quad \begin{array}{r} 48 \\ - 35 \\ \hline \end{array} \quad \begin{array}{r} 77 \\ - 54 \\ \hline \end{array} \quad \begin{array}{r} 93 \\ - 72 \\ \hline \end{array} \quad \begin{array}{r} 65 \\ - 13 \\ \hline \end{array}$$



Aktiviti 5: Tekemaot long situesen blong laef

Talemaot long ol studen stori ia:

“Mama i gat 15 aranis. Hem i givim wanwan aranis long ol 7 pikinini blong hem. Hamas aranis nao i stap?”

Askem ol studen oli ansa long kwesten blong stori ia tugeta wetem yu. Yufala i raetemaot operesen long bod mo faenem ansa tugeta.

Afta, pleplei long stori: putum 15 ston o sid long tebol blong reprisentem aranis ia. Givhan long ol studen blong mekemap mining blong operesen.

Droem stori long bod. Putum operesen ananit long droing blong hem. Solvem, ansa long kwesten.

Askem ol studen oli krietem samfala moa blong wok long hem mo tu, yu save krietem samfala moa blong ol studen oli wok long olgeta.

Aktiviti 6: Stori mo operesen

Mekem semak aktiviti wetem ol stori ia daon.

Askem ol studen blong oli wok wetem wan fren (tutu). Bae tufala i save toktok tugeta mo wokemaot blong ol kwesten.

- ◆ “John i gat 40 yia, gel blong hem i gat 12 yia. Faenem defrens blong yia bitwin papa mo gel.”
- ◆ “Long wan klasrum i gat 50 studen. 10 long olgeta ol i ol kel. Hamas boe i gat long klasrum ia?”
- ◆ “Long wan paket bisket i gat 24 bisket. Saemon wetem ol fren blong hem oli kakae 14. Hamas bisket i stap?”
- ◆ “Insaed long aelan basket blong Nety i gat 59 frut, aranis mo banana. Nety i kaontem i gat 9 aranis. I gat hamas banana?”

Mekem koreksen i folem wanwan problem

Yu save mekem samfala moa blong ol studen oli wok long hem o sapos no yu save faenem ol tru stori blong ol studen oli kontiniu blong wok long hem tu.

Aktiviti 7: Stori problem

Talem long ol studen se, “Karin i wantem pem wan pensel blong 50vt. Hem i gat 45vt no moa.”

Askem olgeta blong faenem kwesten mo finisim stori ia. Afta oli mas ansarem kwesten we hem i raetem.

Aktiviti 8: Stori

Talem long ol studen se hemia tu longfala: 58m mo 18m.

Askem olgeta blong mekem wan stori blong tekemaot wetem tufala namba ia mo ansa bak long kwesten blong yu.

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ tekemaot wan namba blong objek long wan grup mo talemaot hamas i stap?
- ◆ wanem ia wan defrens?
- ◆ kalkuletem wan defrens long 2 wei?
- ◆ raetem stori we i involvem tekemaot?
- ◆ solvem wan smol problem tekemaot?
- ◆ putum 2 operesen tekemaot long kolom?
- ◆ eksplenem ol probem blong tekemaot?

Opotuniti blong Asesmen

Askem ol studen blong mekem wan tekemaot stori problem. Afta, oli droem stori ia mo ansa long kwesten.



2. Handelem data

Lening Aotkam: CDHD.3.V1 – Kolektem, putum long wan oda, mekem diskasen mo save talemaot wanem infomesen i minim long ol defren wei

Fokas blong ol Aktiviti: Ridim mo presentem infomesen

Ol Risos: Tebol, grid, graf

Vokabulari: Laen, kolom, vetikel, horisontol

Ol Lening Aktiviti

Aktiviti 9: Tekem infomesen long simpol tebol

Hemia namba blong ol pikinini we oli kakae long kantin blong skul long wan wik. Askem ol studen blong lukluk gud tebol ia mo ansarem long ol kwesten.

Askem olgeta:

- ◆ Hamas pikinini i kakae long Mande?
- ◆ Long wanem dei kantin i no save open?
- ◆ From wanem?
- ◆ Long wanem dei nao i gat mo studen i kakae long kantin?
- ◆ Hamas pikinini i kakae long kantin long Tusde?

Mande	Tusde	Tasde	Fraede
58	69	72	63

Aktiviti 10: Oganaesem infomesen long simpol tebol

Soem long ol studen mo askem olgeta blong putum ol infomesen long wan narafala wei long tebol.

Mande	58
Tusde	69
Tasde	72
Fraede	63

Studen i komperem tebol blong Aktiviti 9 wetem tebol blong Aktiviti 10. Askem olgeta sapos oli save wan narafala wei blong presentem ol infomesen ia.

Not blong Tija: Mekemsua se ol studen oli luksave se infomesen blong tufala tebol i semak. Wei blong ridim tebol i jenis: long Aktiviti 9 yumi rid antap i kam daon folem **kolom**, long Aktiviti 10, yumi ridim ol infomesen folem **laen**, stat long lefsaed o go long raetsaed.

Aktiviti 11: Putum infomesen long kolom tebol

Ol studen oli lisen long stori problem:

“Tom, Manu mo Noel oli go long stoa long wiken. Tom i pem: wan traoses, wan hat mo wan eksasaes buk. Manu i pem: wan glas blong ae, wan tawel, wan smol naef. Noel i pem: wan strap, wan folda mo wan botel wota.”

Ol studen oli wok long grup blong 2 mo droem wan kolom tebol blong putum infomesen long vetikel wei.

Askem olgeta blong raetem daon ol mein infomesen blong stori: nem blong trifala boe mo wanem oli pem long stoa.

Wan grup i soem ansa long klas.

Eksampol:

Tom	Manu	Noel
Traosis	Glas blong ae	Strap
Hat	Tawel	Folda
Eksasaes buk	Smol naef	Botel wota

Aktiviti 12: Putum infomesen long laen tebol

Ol studen oli putum ol infomesen blong Aktiviti 11 long wan laen tebol we oli ridim infomesen long horisontol laen.

Mekem semak aktiviti long laen tebol mo yusum olsem infomesen long klasrum olsem:

- ◆ wei we ol studen oli kam long skul evri dei
- ◆ ol aelan oli kam long hem
- ◆ ol relijen blong olgeta
- ◆ namba blong gel mo namba blong boe

Aktiviti 13: Mekem stori problem aot long tebol

Raetem tebol ia long bod mo ol studen oli ridim ol infomesen.

Yelo bas	Red bas	Grin bas	Grei bas
John	Sera	Elsa	Marie
Lea	Mathis	Julien	Leo
Theo		Nina	

Askem ol studen oli talem stori wetem ol infomesen we hem i tekem long tebol mo yu raetem stori long bod. Afta ol studen oli raetem stori blong olgeta long eksasaes buk klosap long kolom tebol.

Aktiviti 14: Ansa long kwesten Yes o No

Yusum ol infomesen we i kam long tebol blong aktiviti 13, askem ol studen blong ansarem “yes” o “no” long ol stetmen ia:

- ◆ Elsa i go long red bas
- ◆ Nina i go long grin bas
- ◆ Sera i go long grei bas
- ◆ Lea i go long yelo bas
- ◆ Theo i go long red bas
- ◆ Mathias i go long yelo bas

Yu save yusum kenu o ol narafala objek sapos ol studen oli nogat bas long komyuniti blong olgeta.

Ativiti 15: Tekem infomesen

Mekem wan sevei blong faenem ol defren eria we ol studen oli liv.

Ol studen oli wok long 4 grup mo raetem daon namba blong studen long wanwan eria.

Eksampol:

- ◆ Grup 1: Fres Wota
- ◆ Grup 2: Anabrou
- ◆ Grup 3: Tagabe
- ◆ Grup 4: Nambatu

Ol studen oli kolektem ol infomesen mo putum ol infomesen long wan bigfala pepa mo putum long klas.

Yu save mekem semak aktiviti long kolom tebol mo faenemaot long klasrum:

- ◆ wei we ol studen oli kam long skul evridei
- ◆ ol aelan oli kam long hem
- ◆ ol relijen blong olgeta
- ◆ namba blong boe
- ◆ namba blong gel

Aktiviti 16: Putum infomesen long tebol long wan kolom mo laen

Talem long ol studen stori ia:

“Mama i go long maket. Hem i pem wan basket kumala long 300vt, wan bandel banana long 500vt, wan smol yam long 400vt mo wan bandel aelan kabij long 150vt.

Askem ol studen blong mekem 1 tebol kolom mo putum ol infomesen ia long hem, afta oli mekem wan tebol laen mo putum olsem infomesen long hem.

Eskplenem bakegen wei blong ridim ol tebol ia: long kolom, vetikel, long laen, horisontol

Aktiviti 17: Ridim simpol graf

Talem long ol studen wan grup blong smol boe we oli stap plei futbol:

- ◆ 8 boe i gat 10 yia
- ◆ 4 i gat 9 yia
- ◆ 1 i gat 7 yia
- ◆ 2 boe i gat 8 yia

Soem olgeta graf ia:

10				
9				
8				
7				
6				
5				
4				
3				
2				
1				
0	7 yia	8 yia	9 yia	10 yia

Afta askem olgeta ol kwesten olsem:

- ◆ I gat hamas grup blong boe?
- ◆ Wanem grup nao i gat mo boe?
- ◆ I gat hamas boe blong 9 yia?
- ◆ Wanem grup i mo yang?
- ◆ We ples yu luk namba blong ol boe? Mo hamas yia blong olgeta?

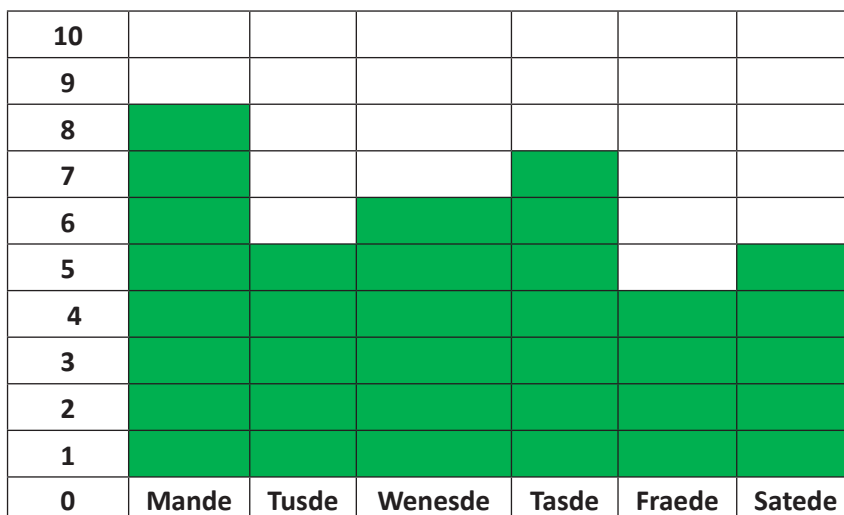
Aktiviti 18: Putum infomesen long graf

Talem long ol studen se, ol man long vilej oli salem ol bag manggo long stoa. Long wan wik hemia nao wanem stokipa i rikodem:

Mande	Tusde	Wenesde	Tasde	Fraede	Satede
8 bag	5 bag	6 bag	7 bag	4 bag	5 bag

Mekem ol grup blong 2 studen. Oli mas mekem wan graf mo droem pija blong bag, 1 bag manggo long 1 bokis.

Mo tu oli save kalarem long defren kala, ol bokis we i gat bag manggo folem wanwan dei.



Askem long ol studen sam kwesten olsem:

- ◆ Wanem dei i gat mo bag manggo?
- ◆ I gat hamas bag manggo long Fraede?

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ ridim ol infomesen long wan tebol long kolom?
- ◆ ridim ol infomesen long wan tebol long laen?
- ◆ ridim ol infomesen long wan tebol kolom mo laen?
- ◆ ol dereksen olsem vetikel mo horisontol?
- ◆ komperem infomesen folem namba o seding long wan graf?
- ◆ luksave wan tebol long kolom?
- ◆ luksave wan tebol long laen?

Opotuniti blong Asesmen

Talem o ridim stori ia mo askem ol studen blong putum ol infomesen long wan tebol olsem olgeta i wantem.

“Bas blong skul i pikimap ol studen evri moning. Long fas stop hem i pikimap 1 pikinini, long nambatu stop 3 pikinini, nambatri stop 5 pikinini, nambafo stop 4 pikinini, nambafaev stop 2 pikinini.”



Tem 2, Wik 7

Ol Sab-stran: 1. Operesen 2. Longfala, Weit mo Kapasiti

1. Operesen

Lening Aotkam: NO.3.V1 – Solvem ol problem we i involem ademap, tekemaot mo multiplikesen yusum ol defren wei

Fokas blong ol Aktiviti: Multiplikesen

Ol Risos: Tebol blong multiplikesen, kiub, ol lid blong botel, sid, ston,

Vokabulari: Multiplikesen, multiplaem

Ol Lening Aktiviti

Aktiviti 1: Tingting blong multiplae

Putum long tebol 20 objek olsem ol ston o sid.

Askem ol studen blong mekem hip blong 5 objek, olsem:

$$\begin{array}{cccc} \triangle\triangle\triangle\triangle & \triangle\triangle\triangle\triangle & \triangle\triangle\triangle\triangle & \triangle\triangle\triangle\triangle \\ 5 & + & 5 & + & 5 & + & 5 \end{array}$$

Raetem operesen blong kalkuletem total blong ol hip ia long bod:

$$5 + 5 + 5 + 5$$

Askem hamas taem yumi raetem 5 long operesen ia:

Ansa: “Yumi raetem namba 5, 4 taem.”

Sapos ol studen oli faenem i had, yusum ol ril objek.

Talem long ol studen se:

- ◆ 4 taem 5 = 4 x 5
- ◆ taem = x hem i saen blong multiplikesen
- ◆ 4 x 5 = 20 hem i wan multiplikesen

Raetem long bod: $5 + 5 + 5 + 5 = 4 \times 5 = 20$

Mekem sam mo aktiviti olsem wetem ol narafala namba, yusum 1 dijit.

Aktiviti 2: Multiplae long situesen blong laef

Talem long ol studen stori ia: “Lucie i salem kakae long maket. Long tebol blong hem i gat 3 hip blong aranis. Long wan hip i gat 4 aranis.”

Askem studen blong droem ol hip blong eni objek mo raetem wan operesen ademap aninit o saed long droing.

Eksampol:



$$4 + 4 + 4$$

Raetem wan operesen **ademap** aninit o saed long droing.

$$4 + 4 + 4$$

Studen i raetem operesen long bod: $4 + 4 + 4$

Mekem oli kalkuletem: $4 + 4 + 4 = 12$

Nao askem ol studen blong raetem situesen long ademap i go long wan multiplikesen:

$$3 \text{ taem } 4 \rightarrow 3 \times 4 = 12$$

Not blong Tija: Ol studen oli no save yet tebol blong multiplikesen. Blong faenem ansa blong wan multiplikesen ol i mas pas tru long wan operesen ademap.

Aktiviti 3: Ademap i go long multiplikesen

Raetem long bod: $6 + 6 + 6 = 18$ mo $3 \times 6 = 18$

Mekem moa aktiviti osem wetem narafala gruping blong ol 1-dijit namba.

Aktiviti 4: Gruping mo multiplikesen

Raetem long bod o kopi tebol ia mo askem ol studen blong fulumap folem eksampol:

Ol gruping	Hamas taem?	Yumi talem	Yumi raetem	Totol
$7 + 7 + 7 + 7 + 7$	5	5 taem 7	5×7	35
$3 + 3 + 3 + 3 + 3 + 3$				
$5 + 5 + 5 + 5$				
$10 + 10 + 10$				

Aktiviti 5: Multiplikesen i go long ademap

Raetem long bod o kopi tebol ia mo askem ol studen blong fulumap folem eksampol.

Multiplikesen	3×8	9×1	4×6	4×5	10×3	5×3	2×7	2×10	7×2
Yumi ridim	3 taem 8								
Gruping	$8 + 8 + 8$								

Aktiviti 6: Ademap i go long multiplikesen

Droem 3 grup blong 3 mabol o putum long tebol sapos yu gat. Askem ol studen blong soem ol mabpl long ademap mo afta long multiplikesen.

Kalkuletem namba blong mabol wetem wan adisen, afta eaetem bak wetem wan multiplikesen.

Aktiviti 7: Operesen x i go long +

Raetem long bod wan simpl operesen blong multiplikesen wetem wetem 1 dijit.

Eksampol: 2×3

Askem ol studen oli raetem bak multiplikesen ia long wan operesen ademap olsem: $3 + 3$

Afta, oli kalakuletem $3 + 3 = 6$.

Mekem samfala moa aktiviti olsem ia wetem narafala namba blong 1 dijit kasem 10.

Aktiviti 8: Ol wei blong mekem 12

Luklukbak long stori blong Lucie long Aktiviti 2.

Putum ol studen long grup blong 3. Givim 12 ston long wanwan grup.

Talem long olgeta se “Lucie i wantem jenisim wei we hem i mekem ol hip aranis blong hem.”

Ol grup oli tingting mo mekem ol niufala hip blong olgeta.

Askem: I gat hamas grup o hip nao? I gat hamas aranis long wanwan grup?

Afta oli droem ol niufala wei blong gruping blong olgeta mo raetem total namba blong aranis long wei blong wan ademap mo raetem total namba blong aranis long wei blong wan multiplikesen.

Askem trifala grup i kam soem ansa blong olgeta long bod olsem:

$$4 + 4 + 4 = 3 \times 4$$

$$6 + 6 = 2 \times 6 = 12$$

$$3 + 3 + 3 + 3 = 4 \times 3 = 12$$

$$2 + 2 + 2 + 2 + 2 + 2 = 6 \times 2 = 12$$

Not blong Tija: Mekem sem aktiviti olsem hemia wetem narafala namba kasem 20.

Aktiviti 9: Tebol blong multiplikesen, 0 – 10

Putumap o givimaot tebol blong multiplikesen olsem ia, mo tekem ol ansa blong ol aktiviti 1, 2, 3 mo stat fulumap tebol blong multiplikesen.

x	0	1	2	3	4	5	6	7	8	9	10
0											
1											
2				6							
3			6		12		18				30
4				12		20					
5					20			35			
6				18							
7						35					
8											
9											
10				30							

Not blong Tija: Fulumap tebol tugeta wetem studen taem yu faenem ansa long ol aktiviti wetem ol wan dijit namba long multiplikesen kasem 10.

OI Kwesten blong Asesmen

OI studen oli save:

- ◆ mining blong multiplikesen?
- ◆ jenisim operesen ademap wetem gruping long 2, 3, 4, 5, 6 kasem 10 i go long wan multiplikesen?
- ◆ raetem 1 dijit multiplikesen i go long wan ademap blong gruping?
- ◆ save fulumap pat blong tebol blong multiplikesen?
- ◆ save droem wan situesen blong wan gruping?

Opotuniti blong Asesmen

Givim wan operesen ademap blong wan gruping long ol studen. Oli mekem wan stori mo kwesten. Droem stori, putum daon operesen ademap mo raetem operesen ademap long wei blong multiplikesen.

2. Longfala, Weit mo Kapasiti

Lening Aotkam: MLWC.3.V1 – Estimetem, mesarem, komperem mo diskasem weit, longfala mo kapasiti blong ol ting yusum ol standed metod

Fokas blong ol Aktiviti: Yunit blong weit

Ol Risos: Balens, skel, ol mabol, ol objek blong faenem weit, olsem biskit, tinfis, plastik suga tolet pepa, ol weit (long numerasi kit), kasem 1 kg plastik raes, sanbij

Vokabulari: Hevi, i no hevi, hevi moa, laet bitim, hevi tumas, laet tumas, i bitim, i no kasem, semak, komperem, ges/estimetem, gram, kilogram

Ol Lening Aktiviti

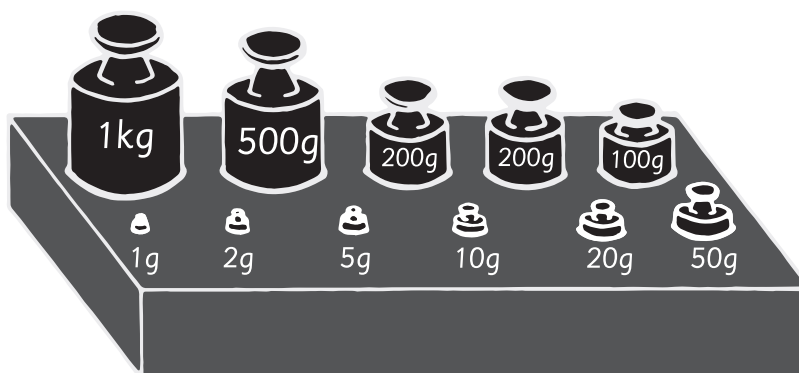
Aktiviti 10: Mesarem wetem non-standed yunit

Givim long ol studen wan objek mo sam mabol o ston. Yusum 2 plet skel, askem olgeta blong faenem weit blong objek ia olsem i save balens wetem wan stret namba blong mabol.

Talem long olgeta long ples ia, **mabol** i yunit blong weit. Mekem ol studen oli talem long yu weit blong objek olsem “weit blong objek A = 4 mabol”.

Sapos objek i moa laet long 4 mabol moa hem i mo hevi long 3 mabol, yumi talem “weit blong objek i bitwin 3 mo 4 mabol” we i yunit blong weit long ples ia.

Aktiviti 11: Weit Wetem standed Yunit



Soem ol studen ol weit we i kam long numerasi kit mo sam olsem ia we oli gat 500g, 1kg $\frac{1}{2}$ kg. Mekem oli obsevem gud wanem oli raetem long ol weit ia.

Talem, long ol studen se **kg = kilogram** mo **g = gram** oli yunit blong mesarem hevi mo weit.

Aktiviti 12: Ridim weit

Ol studen oli wok long 5 grup. Putum wan paket bisket, 1kg suga, 1 tinfis, 1 toelet pepa long wanwan grup.

Askem long ol studen blong faenem mo ridim weit blong ol aetem ia mo fulumap tebol olsem ia:

Aetem	Weit
Plastik suga	1kg
Paket bisket	300g
Tinfis	
Toelet pepa	

Lanem ol studen blong oli save weit blong wanem oli stap kakae o yusum.

Mekem semak aktiviti wetem ol narafala moa aetem blong stoa.

Aktiviti 13: Skelem wetem weit blong ol aetem

Putum 1kg suga long wan plet blong balens mo sam ston i go long narafala plet.

Mekemsua se tufala plet i stap long semak level.

Talem, “Plastik suga ia hem i 1kg, ston tu hem i 1kg from tufala plet i balens.”

Raetem long bodPlastik suga = 1(hip blong) ston = 1 kg.

Aktiviti 14: Skelem weit blong ol aetem

Ripitim aktiviti 12 mo 13, mo faenem weit blong sam narafala objek yusim weit blong wan paket bisket, wan tinfis, wan toelet pepa olsem yunit.

Raetem long bod semak taem we aktiviti i stap gohed.

Eksampol:

Paket bisket = ____ banana = 300g

Toelet pepa = ____ mabol = 4 x ____ g

Tinfis = ____ manggo = 4 x ____ g

Aktiviti 15: Semak long Aktiviti 13

Kapsaetem wan kwantiti blong sanbij bitim 1kg long wan plastik raes. Putum long wan plet blong balens. Narafala plet i gat 1 weit blong 1kg o wan plastik raes blong 1kg.

Tekemaot ekstra kwantiti blong sanbij kasem tufala plet oli balens. Talem long olgeta “Plastik sanbij ia weit blong hemi 1kg = long plastik raes, 1kg (kilogram)”.

Not blong Tija: Yu save mekem sam moa aktiviti olsem, wetem wota, ol ston, o ol sid mo faenem weit blong olgeta yusum aetem we weit i stap long hem finis.

Aktiviti 16: Risej

Askem ol studen blong faenem ol aetem long hom blong olgeta mo fulumap tebol ia wetem 3 aetem long **kg**, mo 3 aetem long **g**.

Aetem long kg (kilogram)	Aetem long g (gram)
1.	1.
2.	2.
3.	3.

Ol studen oli kambak wetem ol ansa mo putumap long klasrum.

Aktiviti 17: Yusum < > o =

Askem ol studen blong putum long oda ol aetem long kg we oli bin faenem long Aktiviti 16, stat long smolwan i go long bigwan mo afta bigwan i kam long smolwan.

Afta mekem semak wetem ol aetem long **g**.

Aktiviti 18: Komperem ½ kg mo 500g

Putum long wan plet wan weit blong 500g. Long narafala plet, putum weit blong ½kg.

Mekem oli obsevem level blong tufala plet ia mo talem wanem oli obsevem.

Talem mo raetem: ½ kg = 500g
 500g = ½ kg



Aktiviti 19: Kilogram mo Gram

Putum long wan plet wan weit blong 1kg, long narafala plet, putum 2 weit blong $\frac{1}{2}$ kg.

Askem ol studen blong obsevem level blong skel. Talem:

- ◆ $\frac{1}{2}$ kg + $\frac{1}{2}$ kg = 1kg
- ◆ 500g + 500g = 1000g
- ◆ 1000g = 1kg

Aktiviti 20: Tebol blong weit

Rimaenem ol studen:

- ◆ $\frac{1}{2}$ kg = 500g
- ◆ 500g + 500g = 1000g
- ◆ 1000g = 1kg

Afta putum ol mesamen ia long tebol olsem:

kg			g
	5	0	0
1	0	0	0
1			

Afta yusum tebol blong weit mo komplitim:

- ◆ 7kg = ____ g
- ◆ 4kg = ____ g
- ◆ 1kg = ____ g
- ◆ 5kg = ____ g

Eksampol: 6kg = 6000g

Mekem semak wetem yunit kg: 1000g = 1kg

- ◆ 4000g = ____ kg
- ◆ 9000g = ____ kg
- ◆ 6000g = ____ kg
- ◆ 2000g = ____ kg

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ komperem weit blong 2 objek mo talem i olsem wanem?
- ◆ rilesense $1/2\text{kg}$ mo 500g tufala i semak?
- ◆ skelem mo faenem objek blong wan samting yusum wan aetem long stoa we i gat weit long hem?
- ◆ faenem weit blong ol aetem long stoa?
- ◆ putum long oda ol weit long yunit blong g mo kg?
- ◆ raetem weit blong kg i go long g?
- ◆ raetem weit blong g i go long kg?
- ◆ yusum skel wetem 2 plet?

Opotuniti blong Asesmen

Givim wan objek long ol studen. Askem olgeta blong faenem weit blong objek ia yusum wan aetem we i gat weit blong hem mo talem weit blong objek ia.

Tem 2, Wik 8

Ol Sab-stran: 1. Ful Namba (599–699) 2. Taem

1. Ful Namba

Lening Aotkam: NWN.3.V1 – Ridim, raetem, ripsentem mo putum ol ful namba long oda kasem 999, yusum ol defren materiel

Fokas blong ol Aktiviti: 599 kasem 699

Ol Risos: Tebol blong numeresen, ol yunifiks kiub

Vokabulari: Faev hundred nanenti-naen i go kasem sikis hundred naenti-naen

Ol Lening Aktiviti

Aktiviti 1: Introdium 600

Raetem namba ia long bod: 599

Folem semak aktiviti olsem long Tem 2, wik 1, Aktiviti 1.

Aktiviti 2: Kaontem 599–699

Jusum 10 studen blong kaontem long wan jein.

- | | |
|--------------------------------------|---------------------------------------|
| ◆ Studen 1: 599 i go long 609 | ◆ Studen 6: 649 i kasem 659 |
| ◆ Studen 2: 609 i kasem 619 | ◆ Studen 7: 659 i go long 669 |
| ◆ Studen 3: 619 i go long 629 | ◆ Studen 8: 669 i go 679 |
| ◆ Studen 4: 629 i go 639 | ◆ Studen 9: 679 i go long 689 |
| ◆ Studen 5: 639 i go long 649 | ◆ Studen 10: 689 i go long 699 |

Mekem ol studen oli sitdaon kwaet mo lisen long ol studen olia oli talem jein namba we tija i givim long olgeta.

Aktiviti 3: Kaontem

Mekem ol studen oli kaon folem ol defren paten ia:

- ◆ Kaon long 5 stat long 595 i go long 655

Eksampol: 595, 600, 605...

- ◆ Kaon long 10 stat long 490 i go long 600

Eksampol: 490, 500, 510...

- ◆ Kaon long 100 stat long 99 i go long 699

Eksampol: 99, 199, 299...

Aktiviti 4: Mekem 600

Raetem ol operesen ia long bod mo askem ol studen blong komplitim olgeta blong mekem 600.

$$600 = 599 + 1$$

$$600 = 598 + \underline{\quad}$$

$$600 = 597 + \underline{\quad}$$

$$600 = 596 + \underline{\quad}$$

$$600 = 595 + \underline{\quad}$$

$$594 + \underline{\quad} = 600$$

$$593 + \underline{\quad} = 600$$

$$592 + \underline{\quad} = 600$$

$$590 + \underline{\quad} = 600$$

$$591 + \underline{\quad} = 600$$

Not blong Tija: proposem sam moa aktiviti blong dikompos blong ol namba stat long 599 i go long 699 mo givhan long ol studen blong wok long olgeta.



Aktiviti 5: Raetem ol namba oli go antap

Askem ol studen blong raetem ol namba ia oli go antap long tens:

Eksampol:

611 → 621

655 → _____ 585 → _____ 601 → _____ 689 → _____ 599 → _____

Askem ol studen blong raetem ol namba ia oli go antap long Handred

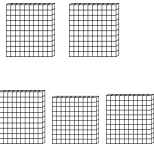
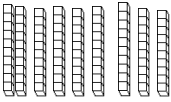

Eksampol:

199 → 299

598 → _____ 455 → _____ 376 → _____ 500 → _____

Afta yu save mekem sem aktiviti wetem ol namba oli kam daon.

Aktiviti 6: Raetem namba long Tael, Ba mo Kiub

Handred/Tael	Ten/ Ba	Yunit/ kiub
5	9	9
		

Lukluk mo ridim tebol blong numeresen ia. Droem tael, Ten mo kiub we oli ripresentem ol namba ia:

678 600 652 601

Ol studen oli talem o raetem namba we i droem long tael, ba mo kiub.

Afta, raetem ol namba yusum abakas. Luk: Tem1, Wik 2 Aktiviti 3.

Aktiviti 7: Dikomposem ol namba

Soem long ol studen eksampol ia: $599 = 5 \text{ handred, } 9 \text{ Ten mo } 9 \text{ Yunit, } 599 = 500 + 90 + 9$

Askem olgeta blong mekem semak wetem ol namba ia: 675, 604, 698, 654, 611

Aktiviti 8: Komperem ol namba

Raetem ol nabma ia long bod mo askem ol studen blong putum long oda yusum stat long smol i go long bigwan

695 687 659 678 696 669 687

Aktiviti 9: Raetem long leta mo wod

Askem ol studen blong fulumap ol emti bokis long tebol ia.

Figga		698	676		
Wod	Sikis hundred mo wan			Sikis hundred fiftin	Sikis hundred mo naenti-naen

Aktiviti 10: Mekem ol namba

Raetem trifala namba ia long bod mo askem ol studen blong mekem evri posibol namba wetem $4 - 6 - 5$

Afta oli save raetem wanwan long wod mo putum olgeta long oda from bigfala wan i kam long smolwan.

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ ol namba stat long 599 kasem 699?
- ◆ raetem long wod mo long figa ol namba ia?
- ◆ ripsintesen namba long tael, ten mo kiub?
- ◆ ridim mo talemaot tael, ten mo kiub long namba?
- ◆ putum long oda ol namba stat long 599 i kasem 699?
- ◆ mining blong wanwan dijit blong wan 3 dijit namba?
- ◆ tekem wan namba long hundred o ten i go antap o i kamdaon?
- ◆ dikomposem ol namba bitwin 599 mo 699?
- ◆ mekemap namba wetem 3 dijit olsem 4 , 5, 6?

Opotuniti blong Asesmen:

Askem ol studen blong solvem problem ia: “Taso i spendem 2 koen blong 50vt, 1 koen blong 100vt, 1 not blong 500vt blong pem wan hat. Wanem praes blong hat ia?”

2. Taem

Lening Aotkam: MT.3.V1 – Luksave mo andastanem ol yunit blong taem yusum kalenda mo 12 aoa klok (analog)

Fokas blong ol Aktiviti: Ridim ful taem

Ol Risos: Ol kad blong binggo, ol kiub, wan klok, klok wetem nidel/han, pija blong ridim fes blong klol (**Apendiks 8**), pija blong ridim analog klok (**Apendiks 9**)

Vokabulari: Laen blong taem, medelnaet, medel dei, 7 klok naet, 8 klok aftanun, 9 klok moning

Ol Lening Aktiviti

Aktiviti 11: Luklukbak long tingting blong Taem

Givim long ol studen sam toktok we yu stap harem abaot **Taem** olsem:

- ◆ “Taem i pas”
- ◆ “No pleplei long taem”
- ◆ “Westem taem”
- ◆ “Kilim taem”
- ◆ “Smol taem nomo”
- ◆ “Taem hem i mani”
- ◆ “No gat taem”

Tokbaot mining blong ol toktok ia.

Askem long ol studen Wanem ia “taem”? Olsem wanem yumi lukim taem?

Talem: “Yumi no save tajem taem yumi lukim nomo se taem i pas tru long ol saen olsem bebe i gro i kam bigwan, i go yangfala, i kam medel man i go olfala, sid i kamaot long graon i gro i kam wan tri i putum frut, i go olfala i trae.”

Tugeta wetem studen givim samfala mo eksampol long laef: abaot wan lif blong tri, abaot wan frut, wan flaoa, wan animol. Mekemsua se ol studen oli andastanem tingting blong taem we i pas. Talem long ol studen se taem i pas: ol yia

Taem i ripitim hem i mekem wan saekol.

2011

2012

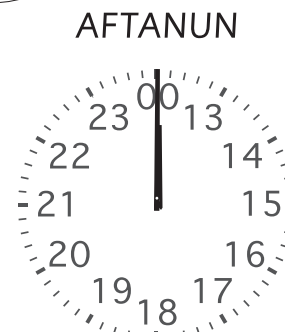
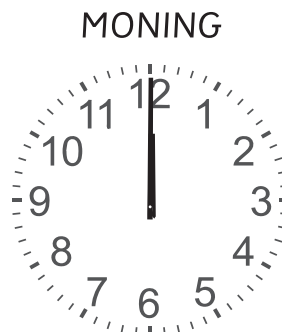
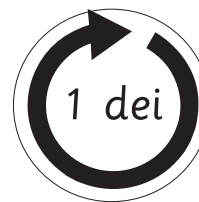
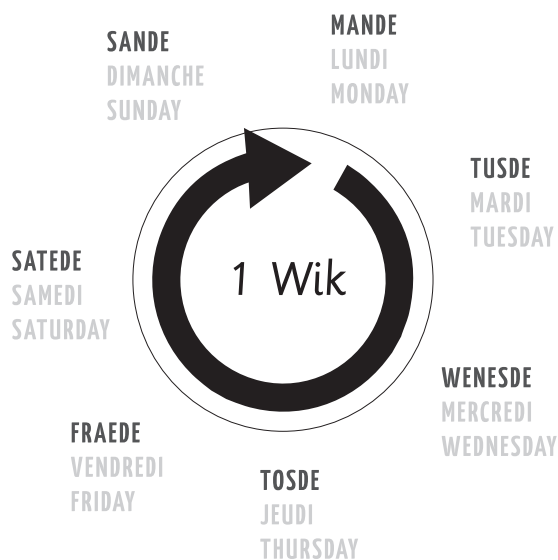
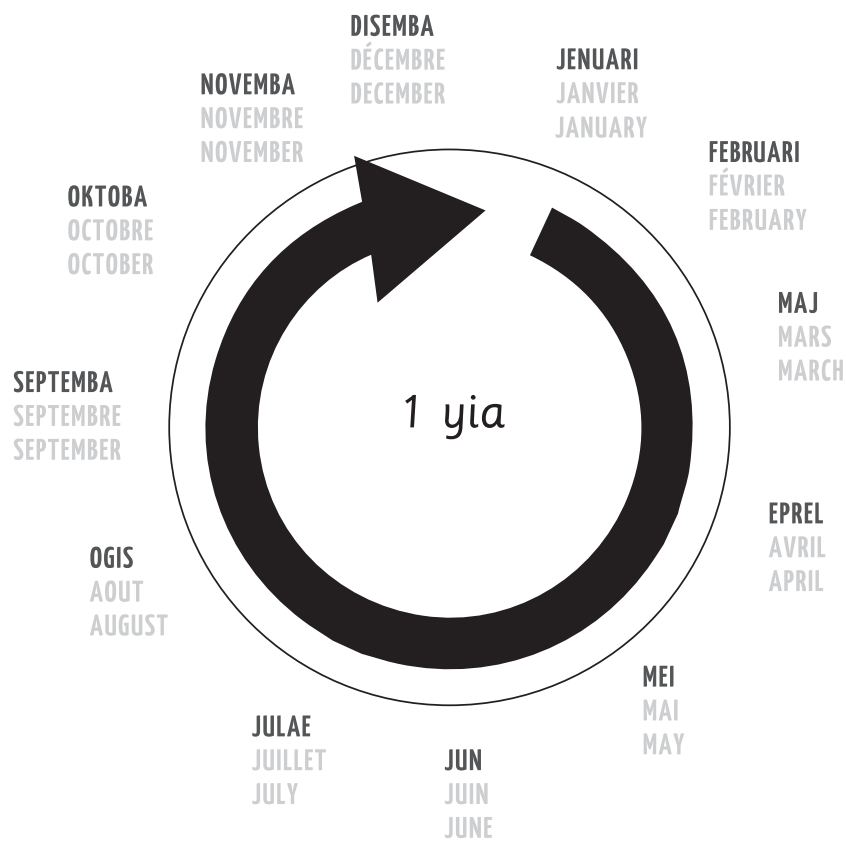
2013

2014

2015

2016

2017



Aktiviti 12: Klok

Raetem long bod o givim wan klok we i gat ol bigfala mak nomo long hem. Askem ol studen blong traem fulumap klok ia. Afta oli kam presentem long evriwan.

Aktiviti 13: Fes blong 12 aoa klok

Soem ol studen ol trifala defren fes blong 12 aoa klok (**Apendiks 8**) mo askem blong ridim olgeta.

Askem long ol studen wanem i semak, defren?

Ol studen oli obsevem trifala fes mo oli toktok wetem help blong tija. Askem ol kwesten ia blong helpem olgeta blong tokbaot ol defren fes blong klok ia.

- ◆ Wij klok i gat raon fes?
- ◆ Hamas han long wanwan klok ia?
- ◆ Wij long trifala han ia i talem aoa?
- ◆ Wanem nao yu save luk long klok 2 we i defren long klok 1?
- ◆ Wij klok i talem taem long Roman namba?
- ◆ Wanem nao yu save talem long klok 3?

Aktiviti 14: Wok long ol dijital klok

Askem long ol studen blong deskraebem dijital klok: I nogat ol bigfala han, smol han mo ol mak. Ridim taem long ol klok long **Apendiks 9**.

Eksampol:

Long lefsaed yu lukim ol aoa: **3 klok**,

Long raetsaed yu lukim ol minit: **30 minit**.

Mekem ol studen oli ridim samfala mo taem long dijital klok.

Aktiviti 15: Ridim stret taem

Mekem wan klok yusum pepa plet o karton mo soem ol studen ol defren taem (yusum ol taem we i stap long ful aoa nomo). Askem long ol studen blong ridim taem ia mo praktisim sam moa.

Aktiviti 16: Droem taem

Yusum kiaman klol we yu bin mekem, talem ol defren taem mo askem ol studen blong putum ol han long raet taem.

Eksampol: 4 klok, 10 klok, 9 klok

Askem long ol studen blong putum sotfala han mo bigfala han long stret ples, folem taem we i raet daon.

Aktiviti 17: Ridim taem long moning

Askem long ol studen, “Moning i stat long wanem taem?”

Ol studen oli toktok mo yu helpem olgeta sapos i nid.

Talem: “Afta medelnaet, soem longfes blong klok. Yumi talem **1 klok moning.**”

Mekem ol studen oli ridim mo talem taem afta medelnaet kasem 12 klok medel day.

Aktiviti 18: Ridim taem afta medeldei

Askem long ol studen, “Aftenun i stat long wanem taem?”

Ol studen oli toktok mo yu givhan long olgeta.

Talem: “Afta Medeldei, Yumi talem **1 klok aftanun.**”

Mekem ol studen oli talem mo ridim taem kasem 12 klok medelnaet.

Aktiviti 19: Moning o aftenun

Talemaot samfala taem. Ol studen oli lisen mo ansa: “bifo o afta medelnaet.”

- | | |
|-----------------|-----------------|
| ◆ 11 klok naet | ◆ 2 klok moning |
| ◆ 4 klok moning | ◆ 1 klok moning |
| ◆ 9 klok naet | ◆ 10 klok naet |

Aktiviti 20: Ol defren taem long dei wetem ol aktiviti blong hem

Askem long ol studen blong talem wanem taem long dei ol aktiviti ia i save hapen.

- | | |
|------------------------------------|-------------------------|
| ◆ Tom i go long skul | ◆ Faol i singaot 3 klok |
| ◆ Evriwan i ded slip | ◆ San i go daon |
| ◆ Ol ofis i klos long en blong dei | ◆ Ples i stat deilaet |
| ◆ Ol studen oli go long lanj | ◆ Mi kambak long skul |



Oi Kwesten blong Asesmen

Oi studen oli save:

- ◆ 12 aoa klok mo dijital klok?
- ◆ talem wanem i defren long tufala klok ia?
- ◆ raetem taem long klok fes, eksampol 7 klok, 6, klok, 12 klok, 10 klok
- ◆ ridim taem afta medelnaet?
- ◆ ridim taem afta medeldei?
- ◆ yusum klok blong talem stret taem?
- ◆ sotfala han mo longfala han mo yus blong tufala?
- ◆ talem sapos aoa we oli harem hem i dei taem o naet taem?

Opotuniti blong Asesmen

Oi studen oli mekem wan stori blong olgeta abaot taem. Oli droem klok wetem taem we i stap long stori blong olgeta.

Tem 2, Wik 9

Ol Sab-stran: 1. Longfala, Weit mo Kapasiti 2. Paten

1. Longfala weit mo kapasiti

Lening Aotkam: MLWC.3.V1 – Estimetem, mesarem, komperem mo diskasem weit, longfala mo kapasiti blong ol ting yusum ol standed metod

Fokas blong ol Aktiviti: Komperem kapasiti

Ol Risos: Wota, sanbij, botel, kontena, ol defren 1 lita kontena

Vokabulari: Lita, yunit blong kapasiti, mililita, sentilita, konten, andastanem, likwid

Ol Lening Aktiviti

Aktiviti 1: Ol instramen blong Kapasiti

Askem ol studen blong diskaem mo givim sam eksampol blong ol instramen blong mesarem kapasiti we yu stap luk, ol man mo woman i yusum long evridei laef, long ples we yu liv.

Raetem ol instramen ia i go long bod.

Letem oli tokbaot wanem nao oli mesarem long ol instramen ia mo wanem nem blong instramen ia.

Aktiviti 2: Meserem kapasiti yusum ol defren kontena

Introdium lita long ful klas. Talem ol studen lita hem i wan standed yunit blong kapasiti. Tekem ol kontena blong 1 lita wetem defren saes mo askem olgeta blong kapsaetem wota o sanbij i go long sam kontena we i sem saes.

Faenemaot se oli semak kapasiti. Talem se sep blong kontena i defren be konten o kapasiti i semak.

Talem bakegen, “Lita hem i mein yunit blong kapasiti.”

Mekem oli talem nem blong sam prodak we oli salem long lita.



Aktiviti 3: Talem kapasiti blong kontena

Soem ol studen ol defren saes kontena mo yu karem i kam long klas.

- ◆ Wijwan i moa big? From wanem?
- ◆ Wijwan i moa smol? From wanem?

Afta, askem olgeta blong oganaesem ol kontena ia long wan oda stat long hemia we i smol olgeta i go kasem hemia we i bigwan bitim evriwan.

Aktiviti 4: Mesarem wetem wan botel blong 1 lita

Tekem ol defren saes blong baket we i fulap long wota mo ol emti kontena blong wota blong 1 lita. Mekemsua se evri grup i gat wan baket mo wan botel blong wok wetem.

Mesarem konten blong baket wetem wan botel blong 1 lita mo ripotem long klas.

Droem tebol ia long bod. Afta letem ol studen oli fulumap wetem risal blong olgeta.

	Baket 1 (hamas botel blong 1 lita)	Baket 2 (hamas botel blong 1 lita)	Baket 3 (hamas botel blong 1 lita)
Grup 1			
Grup 2			
Grup 3			

Diskasem ol risol blong olgeta tugeta.

Aktiviti 5: Risej

Askem ol studen blong mekem aktiviti ia long haos. Mekem oli faenem ol kontena we oli yusum long haos mo raetem long wan tebol olsem ia.

Aetem	Kapasiti
Smol botel wota	600ml

Afta askem olgeta blong putum long oda ol aetem wetem yunit ml.

Aktiviti 6: Tebol blong kapasiti

Askem olgeta blong jenisim ol mesamen ia i go long narafala yunit olsem:

$$1 \text{ lita} = 10 \text{ dl}$$

$$1 \text{ lita} = \text{ ____ } \text{ sl}$$

$$1 \text{ lita} = \text{ ____ } \text{ ml}$$

lita	dl	sl	ml
1l	0	0	0
	6	0	0

Aktiviti 7: Stori blong kapasiti

Talem long ol studen stori ia: “1 baket i save holem 6 lita blong wota. Hamas baket wota mi save fulumap, wetem 12 botel blong 1 lita?”

Ol studen oli droem stori mo kalkuletem ansa.

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ Mesarem mo komperem kapasiti wetem wan non standed yunit?
- ◆ Mesarem kapasiti blong wan kontena wetem yunit we i stap long wan aetem?
- ◆ Komperem kapasiti wetem semak yunit blong mesamen?
- ◆ Putum kapasiti long oda?
- ◆ Standed yunit blong mesamen?
- ◆ Ridim kapasiti long wan aetem?

Opotuniti blong Asesmen

I baket i semak long 6 lita blong wota. Mary i yusum 3 baket blong was wetem. Hamas lita blong wota nao Mary i yusum? Droem situesen mo ansa long kwesten.



2. Paten

Lening Aotkam: PT.3.V1 – Krietem, diskraebem mo finisim ol defren kaen paten yusum ol namba, sep mo tradisonal disaen.

Fokas blong ol Aktiviti: Krietem mo mekem paten wetem ol dekoresen

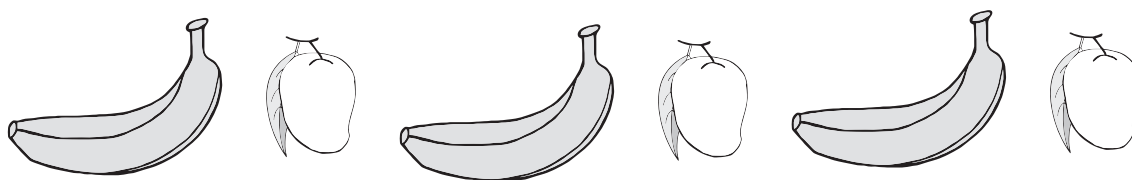
Ol Risos: Namba, tradisenal disaen, kala, sid, bidbid

Vokabulari: Paten, saen blong rul, ol ritem blong paten

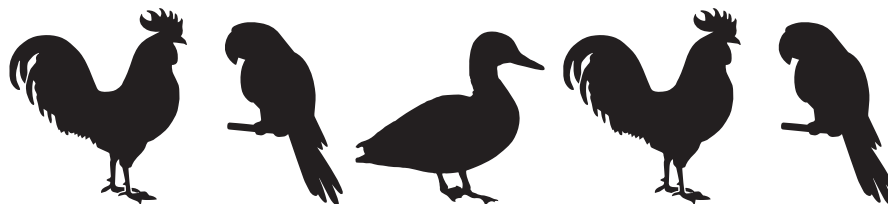
Ol Lening Aktiviti

Aktiviti 9: Ritem blong paten

Droem paten ia long bod mo talem long ol studen paten ia hem i: A (banana) B (manggo)
A (banana) B (manggo)



Droem sam narafala paten olsem:



Givhan long o studen blong deskraebem paten, olsem ABC.

- ◆ A = wanem? (Faol)
- ◆ B = wanem?
- ◆ C = wanem?

Afta, droem wan moa paten olsem:



Olsem wanem yu save deskraebem paten ia?

Askem olgeta blong kontiniu long patem mo droem 2 paten blong hemwan.

Aktiviti 10: Krietem paten folem rul

Talem long ol studen se wan leta i soem long 1 objek, namba, sep, kala o wan narafala samting. Taem leta i jenis i minim se paten i narafala objek, namba, kala. Sapos objek kala o narafala samting i ripitim hem bae leta tu i ripitim hem.



Rul blong paten long ples ia hem i: AABB

Askem studen blong krietem wan paten blong hem wetem eni samting folem sem paten:

AABB AABB: _____

ABB ABB ABB: _____

Sapos ol studen oli faenem i had, oli wok wetem ol ril objek blong soem long yu.

Aktiviti 11: Raetem rul blong paten ia wetem leta A mo B

Givim sam paten long ol studen mo askem olgeta blong raetem rul blong paten ia.

Eksampol:



Rul: KTKTKTKT

K = Karot

T = Tomato

Mekem sam moa wetem ol defren paten.

Aktiviti 12: Paten long kala

Askem ol studen blong droem wan laen blong manggo mo kalarem paten folem AAB we A = grin mo B = yelo. Yu save mekem semak aktiviti wetem narafala sep mo kala

Aktiviti 13: Paten wetem namba

Askem ol studen blong talem wanem paten yumi folem long ol wanwan list ia:

◆ 24 – 27 – 30 – 33 – 36 – 39

◆ 5 – 15 – 25 – 35 – 45 – 55

Afta soem paten. Stat long 6 mo sekolem evri 2 namba:

5 – 6 – 7 – 8 – 9 – 10 – 11 – 12 – 13 – 14 – 15 – 16 – 17

Stat long 71, tekemaot 4 evritaem:

47 – 49 – 51 – 53 – 55 – 57 – 59 – 61 – 63 – 65 – 67 – 69 – 71

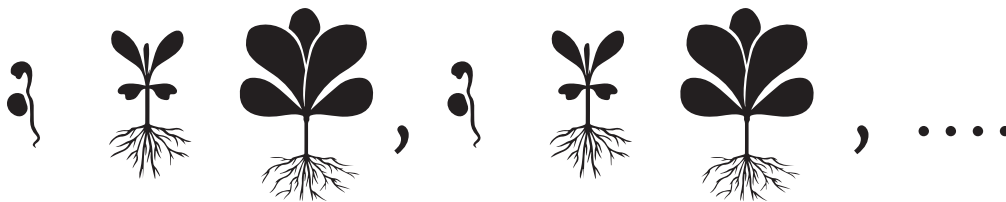
Faenem paten mo fulumap ol emti bokis:

27	25	23	21	19					
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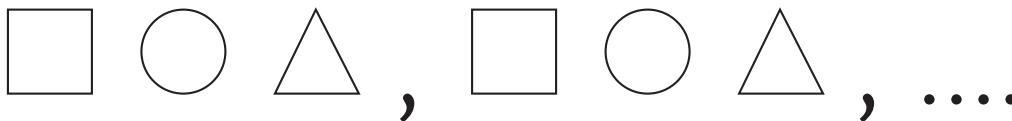
Aktiviti 14: Paten we i gro long saes

Givim sam eksampol long ol paten we i gro. Yusum ol objek, namba mo sep. Letem ol studen oli givim sam eksampol long bod.

Eksampol:



Givim sam paten olsem mo letem oli komplitim.



Aktiviti 15: Paten long muvmen

Oli studen oli redi long wan tanis. Oli prisentem paten kala long klos blong olgeta. Oli stanap long 4 laen mo soem paten blong muvmen blong olgeta.

Aktiviti 16: Paten blong dekoresen

Oli studen oli flasem wol blong klasrum wetem paten we oli mekem.

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ luksave wan ritem blong paten?
- ◆ finis mo kontiniu wan paten?
- ◆ raetem wan paten we i gro?
- ◆ ridim wan paten we i ademap ol namba?
- ◆ faenem wan paten we i tekemaot ol namba?
- ◆ krietem paten long objek, kala, namba mo muvmen?

Oportuniti blong Asesmen

Ol studen oli flasem wan eg yusum paten blong laen dot mo kala.



Tem 2, Wik 10

Ol Sab-stran: 1. Mani 2. Posisen mo spes

1. Mani

Lening Aotkam: M3.V1: Yusum koen mo not blong solvem simpol problem

Fokas blong ol aktiviti: Givim bak mani

Ol Risos: Not blong 200, 500 mo 1000 vatu mo ol koen

Vokabulari: Faev hundred, wan taosen, vatu

Ol Lening Aktiviti

Aktiviti 1: Luksave ol not

Ol studen oli go long 4 grup. Serem ol not mo ol koen stat long 10vt i go kasem 1000vt. Ol studen oli putum ol koen mo ol not ia stat long smolwan kasem bigwan.

Korektem long bod mo long eksasaes buk.

Aktiviti 2: Not o koen

Askem long ol studen, mani ia hemi wan not o kown? Ol studen oli mas krosem stret bokis.

Mani ia hem i wan	5vt	1000vt	20vt	500vt	200vt	50vt
Not						
Koen						

Aktiviti 3: Dikomposem

Askem olgeta olsem wanem oli save jenisim ol not i go long koen:

$$500vt = \underline{\hspace{2cm}}$$

$$200vt = \underline{\hspace{2cm}}$$

Komperem ol ansa mo komplitim ol narafala ansa o wei blong dikompos we oli no bin faenem.

Ol studen oli wok long grup blong 2. Putum koreksen long bod.

Yu wantem pem:	Hat: 500vt	Tinfis: 200vt	Sket: 1000vt
Wetem wanem mani yu save pem?			

Aktiviti 4: Ademap ol mani

Komplitim praes blong ol bred:

1 bred	2	3	7	8	10
60vt					

Aktiviti 5: Givim bak mani

Wan studen i mekem stokipa mo wan narawan i kam kastoma.

Kastoma i pem wan aetem blong 10vt mo wan narafala aetem blong 20vt. Hem i givim 50vt.

Stokipa i mas givim bak hamas long hem?

Mekem semak aktiviti wetem ol narafala amaont blong mani mo aetem.

Aktiviti 6: Skelem wan praes

Wan studen i holem sam pleplei pepa mani o koen.

Putum samfala aetem antap long kaonta (tebol).

Raetem praes i stap long wanwan aetem.

Eksampol:

Wan rula 30vt, wan pis jok 5vt, wan raba 20vt, wan pensel 75vt.

Ol studen oli lukim praes blong aetem long kaonta. Wetem 100vt, wanem aetem oli save pem?

Afta askem olgeta ol kwesten ia:

- ◆ Wetem 85vt mi save pem wanem long ol aetem ia:
 - 1 pen 75vt
- ◆ 1 pensil blong 45vt
 - Wan smol paos blong 150vt
 - Wan sisis blong 180vt

- ◆ Wetem 100vt yu save pem wanem?
 - 1 kon 35vt
 - 1 daes 70vt
 - 1 spun 65vt
- ◆ John i go long maket. Hem i givim 100vt long Marita blong pem 60vt long wan aranis. Hamas jens nao Marita i mas givim bak long John?

Aktiviti 7: Givim bak ol jenis

Raetem tebol ia long bod mo askem ol studen blong fulumap ol emti bokis.

Objek	Praes	Amaont we oli givim	Mani we i kambak
Raba	40vt	_____	10vt
Pensel	45vt	10vt	_____
Jok	15vt	_____	35vt
Eksasaes buk	_____	100vt	20vt

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ luksave ol not mo koen kasem 1000vt?
- ◆ dikomposem ol not i go long koen?
- ◆ dikomposem sam bigfala koen i go long narafala smol koen?
- ◆ mekem praes blong fulap aetem aot long praes blong wan semfala aetem?
- ◆ givim bak mani long wan situesen blong maket o stoa?
- ◆ estimetem praes blong wan aetem?

Oportuniti blong Asesmen

Talem long ol studen hemia sam aetem blong salem. Fo mabol blong 60vt, wan stik blong jok blong 10vt, wan paket masis blong 20vt.

Yu gat 50vt. Askem wan kwesten long situesen ia. Afta droem stori mo ansa long kwesten blong yu.

2. Posisen mo spes

Lening Aotkam: GT.3.V1 – Droem ol simpol map blong soem ol defren ples we oli save

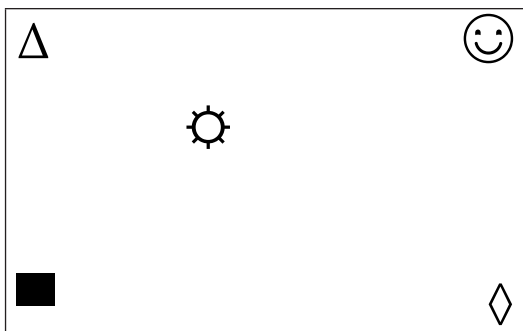
Fokas blong ol Aktiviti: Givim posisen blong wan objek, wan studen long wan spes yusum ol vokabulari we i stap daon. Givim posisen long wan grid yusum leta mo namba long tebol.

Ol Risos: Sep, grid

Vokabulari: Antap, daon, long medel, klosap, long lef saed, long raet saed, bihaen, fored

Aktiviti 8: Ridim posisen long pepa

Droem wan simpol pija olsem ia:



Talem sam posisen long ol sep we i stap insaed mo askem ol studen oli talem sapos i raet o i rong mo yu korektem olgeta:

Eksampol:

- ◆ San i stap daon long lefsaed.
- ◆ Traeangel i stap daon raet kona.
- ◆ Smael i stap long antap raetsaed.
- ◆ Daeman i stap long daon lefsaed.
- ◆ Blak skwea i stap long raetsaed antap.

Givhan long ol studen we oli faenem i had long aktiviti ia.

Aktiviti 9: Faenemaot pija blong grid

Oli studen oli kalarem ol bokis blong faenem pija we i stap insaed. Oli mas kalarem

- ◆ 1 = grei
- ◆ 2 = pink
- ◆ 3 = red

			1			
		1	•	1		
	1	1	1	1		
		1	1			
			3	2		
			3	1	2	
			3	1	1	2
		3	2	2	2	1
	3	1	1	2	1	
1	1	1	1	1		
1	1					
1				1		
1			1		2	
	1				2	
		1	1	1		

Aktiviti 10: Faenem posisen blong wan bokis long wan grid.

Askem ol studen blong faenem ol bokis ia mo kalarem blong faenem sep we oli mekem.
Kalarem:

- ◆ B, 2
- ◆ C, 2
- ◆ D, 2
- ◆ C, 3
- ◆ C, 4
- ◆ C, 5

	A	B	C	D	E
1					
2					
3					
4					
5					



Aktiviti 11: Givim posisen blong wan objek long bokis

Luk long **Apendiks 10**. Ol studen oli mas givim posisen blong wanwan objek yusum stret namba mo leta.

Eksampol:

Paenapol = B, 1

Afta, ridimaot posisen mo askem ogeta bong putum wan objek long ples ia.

Aktiviti 12: Posisen long kros laen

Eksplenem long ol studen wanem nao oli mas mekem blong oli kasem mo talem o raetem stret posisen blong wan objek long grid long Apendik 11. Mekem praktis wetem olgeta mo askem olgeta i wok wetem wan fren (wok tutu). Afta mekem samfala aktiviti moa blong oli wok wanwan.

Aktiviti 13: Posisen long kros laen

Droem grid olsem wan we i stap long aktiviti antap

Eksplenem gud long ol studen se aktiviti ia hem i semak olsem hemia antap be naoia olgeta oli putum ol objek folem wanem instraksen yu talem. Mekem praktis wetem olgeta mo askem olgeta i wok long smolsmol grup afta mekem samfala aktiviti moa blong oli wok wanwan:

Eksampol:

- | | |
|-------------------|-------------------|
| ◆ 1 flawa (A, 1) | ◆ 1 banana (E, 4) |
| ◆ 1 sta (B, 3) | ◆ manggo (F, 6) |
| ◆ plen (C, 5) | ◆ pensel (G, 4) |
| ◆ 1 tomato (D, 2) | |

Aktiviti 14: Muv long ol kros laen

Droem grid A – G, 1 – 6 bakegen mo putum wan poen long A, 1 mo narafala poen long D, 6. Afta talem stori ia long olgeta:

“Mi stap long kros laen (A1) mi wantem go long kros laen (D6). Wanem sofala rod bae mi folem?”

Ol studen oli stap long grup blong 2. Oli storian mo ansa long kwesten yusum leta mo namba blong soem nomo sofala rod oli folem.

Raetem ansa wetem saen blong aro we i soem daareksen we ol i folem: (→↓↑← ____) mo ol kodinet.

Eksampol:

↓A, 2 _____, _____, _____, _____, _____, _____, →D, 6.

Wanwan grup i presentem ansa blong hem long klas.

Tekem nomo ol ansa we i stret long ol posibol sofala rod stat long A1 kasem D6. Mekem semak wetem narafala rod.

Ol Kwesten blong Asesmen

Ol studen oli save:

- ◆ ridim wan tebol long laen mo long kolom?
- ◆ tekem infomesen long wan bokis?
- ◆ tekem infomesen long wan kros laen?
- ◆ putum infomesen long wan bokis?
- ◆ putum infomesen long wan kros laen?

Oportuniti blong Asesmen

Givim wan grid wetem objek long kros laen. Ol studen oli givim posisen blong ol objek ia.



Ovaviu Tem 3

Wik	Sab-stran	Fokas blong ol aktiviti
1	Ful Namba	699–799
	Operesen	Maltiplikesen wetem ol 1-dijit namba
2	Ful Namba	799–899
	Sep mo Anggel	Ol laen blong simetri
3	Operesen	Tekemaot long kolom wetem ol 2-dijit namba
	Longfala, Weit mo Kapasiti	Konvetem ol yunit blong longfala
4	Taem	Ridim taem
	Probabiliti	Prediksen
5	Longfala, Weit mo Kapasiti	Talem kapasiti long lita mo mililita
	Posisen mo Spes	Ridim simpol plan long spes mo givim posisen long grid
6	Ful Namba	899–999
	Paten	Krietem ol paten
7	Ful Namba	Riviu 0–999
	Longfala, Weit mo Kapasiti	Konvetem ol yunit blong kapasiti
	Operesen	Maltiplikesen
8	Operesen	Tekemaot wetem kari
	Mani	Komplitim wan amaon mo givim bak mani
9	Handelem Data	Kolektem infomesen mo putum long tebol
	Longfala, Weit mo Kapasiti	Ol yunit blong weit
10	Paten	Ol paten long saon, muvmen mo at
	Ful Namba	Haf, dabol, kwata mo ted

Not blong Tija: Bifo yu wok long ol Lening Aotkam blong Tem 3, luklukbak long eni aotkam blong Tem 2 we ol studen oli no kasem gud blong mekemsua se oli no mestem olgeta. Kontiniu asesmen i impoten blong folem progres blong ol studen. Yu no wet long en blong Tem blong mekem asesmen.

Tem 3, Wik 1

Ol Sab-stran: 1. Ful namba (699–799) 2. Operesen

1. Ful Namba

Lening Aotkam: NWN.3.V1 – Ridim, raetem, ripisentem mo putum ol ful namba kasem 999 long oda, yusum ol defren materiel

Fokas blong ol aktiviti: 699 kasem 799

Ol Risos: Tebol blong numeresen, tebol blong ademap, ol slet blong ol studen

Vokabulari: Seven hundred naenti kasem seven hundred naenti-naen

Ol Lening Aktiviti

Aktiviti 1: 699 i go long 700

Lukim Tem 2, Wik 1, Aktiviti 1 mo mekem semak wetem 699.

Aktiviti 2: Ridim tebol blong numeresen

Raetem ol namba ia long bod mo letem ol studen oli ridim mo raetem long figa mo long wod:

766 701 779 738

Aktiviti 3: Kaontem ol namba

Letem ol studen oli kaon long iven namba (698, 700, 702...) stat long 698 kasem 720. Afta mekem oli kaon stat long 795 i kambak long 705 (795, 794, 793...). Mo las wan, mekem oli kaon long ol Ten stat long 690 kasem 790 (690, 700, 710...).

Aktiviti 4: Kaontem long paten

Wok wetem ol studen mo faenem paten blong namba paten ia. Letem oli komplitim i go long buk blong olgeta mo ansarem long kwesten ia:

Wanem paten nao yu folem blong komplitim tebol ia?

690	705	720							795
-----	-----	-----	--	--	--	--	--	--	-----

Aktiviti 5: Komposem ol namba

Ol studen oli komposem namba yusum ol Handred.

Eksampol:

$$600 + 100 = 700$$

Mekem semak wetem:

$$\underline{\quad} + 200 = 700$$

$$\underline{\quad} 300 = 700$$

$$\underline{\quad} + 400 = 700$$

$$200 + \underline{\quad} = 700$$

$$100 + \underline{\quad} = 700$$

Afta, yusum ol haf blong ten blong komposem handred.

Eksampol:

$$790 = 700 + 45 + 45$$

$$780 = 700 + \underline{\quad} + \underline{\quad}$$

$$770 = \underline{\quad} + \underline{\quad} + \underline{\quad}$$

$$724 = \underline{\quad} + \underline{\quad} + \underline{\quad}$$

$$750 = \underline{\quad} + \underline{\quad} + \underline{\quad}$$

Aktiviti 6: Fulumap tebol

Ol studen oli fulumap tebol ia:

Namba long figa	Namba long wod	Ples valiu	Dikomposem
			$700 + 60 + 6$
	Seven hundred seventi-eit		
701			
		7 Handred, 9 Ten, 1 Yunit	

Not blong Tija: Yu save fulumap wan jat long wol blong klasrum o long wan eksasaes buk, raeting blong ol namba long figa mo wod blong helpem ol studen oli rimemba long speling.

Aktiviti 7: Namba we i kam bifo mo namba we i kam afta

Ol studen oli raetem stret namba we i kam bifo o afta long namba we i stap.

$$\underline{\quad} < 700 < \underline{\quad} \qquad 797 < \underline{\quad} < \underline{\quad} \qquad \underline{\quad} < 779 < \underline{\quad}$$

$$765 < \underline{\quad} < 767 \qquad 728 < \underline{\quad} < \underline{\quad} \qquad \underline{\quad} < \underline{\quad} < 760$$

Aktiviti 8: Handred bifo mo Handred afta

Letem ol studen oli givim stret handred we i kam bifo o afta long:

$$700 > \underline{\quad} > \underline{\quad} \qquad \underline{\quad} > 300 > \underline{\quad}$$

Mo mekem samfala moa.

Aktiviti 9: Smol, big mo semak (ikwel)

Ol studne oli mak putum stret saen blong $<$ $>$ o $=$

$$793 \underline{\quad} 739 \qquad 769 \underline{\quad} 796 \qquad 719 \underline{\quad} 791$$

$$785 \underline{\quad} 785 \qquad 781 \underline{\quad} 718$$

Aktiviti 10: Krietem ol namba

Givim janis long ol studen blong raetem evri posibol namba wetemol namba ia: 5, 6, 7.

Aktiviti 11: KRA

Tija i talem samfala namba bitwin 699 mo 799 mo ol studen oli raetem long slet. Long signal blong yu, oli mas soemaot namba long slet blong olgeta. Korektem stret afta sapos i gat mistek, soem stret ansa long bod.

Eksampol:

701, 719, 798, 707, 717, 739, 795, 789, 777, 710

Ol Kwesten Blong Asesmen:

Ol studen oli save:

- ◆ ol namba stat long 699 kasem 799?
- ◆ kaontem $2/2$, $5/5$, $10/10$ ol namba bitwin 699 kasem 799?
- ◆ raetem long wod mo long figa ol namba ia?
- ◆ droem Tael, Ba mo Kiub blong ripisentem 3-dijit namba?
- ◆ ridim mo talemaot Tael, Ba mo Kiub long namba?
- ◆ mining blong wanwan dijit blong wan 3-dijit namba?
- ◆ putum long oda ol namba stat long 699 kasem 799?
- ◆ tekem i go antap o tekem i kam daon wan namba long Handred?
- ◆ dikomposem ol namba bitwin 699 mo 799?
- ◆ krietem namba wetem trifala dijit olsem 5, 6, 7?

Opotuniti blong Asesmen

Askem ol studen blong raetem evri posibol namba wetem ol namba ia: 4, 6, 7. Afta, oli putum olgeta long oda stat long bigwan i kam long smolwan.

2. Operesen

Lening Aotkam: NO.3.V1 – Solvem ol problem we i involvem ademap, tekemaot, mo multiplikesen yusum ol defren wei

Fokas blong ol Aktiviti: Multiplikesen wetem ol 1-dijit namba

Ol Risos: Tebol blong multiplikesen, ol slet, ol Yunifiks Kiub, ston, lif, lid blong botel, stik

Vokabulari: Multiplikesen, posisen

Ol Lening Aktiviti

Aktiviti 12: Posisen blong namba long multiplikesen

Luk long Tem 2, Wik 7, Aktiviti 8 mo mekem i semak.

Putum operesen multiplikesen long laen long bod:

$$3 \times 4 = 12 \quad 4 \times 3 = 12$$

Givim taem long ol studen blong stadi long operesen ia. Talem wanem i semak mo wanem i no semak. **Ansa:** Ples blong 3 mo 4 i jenis be ansa i semak.

Afta, ol studen oli kalkuletem ol multiplikesen ia long laen:

$$3 \times 6 = \underline{\quad} \quad 6 \times 3 = \underline{\quad}$$

$$4 \times 5 = \underline{\quad} \quad 5 \times 4 = \underline{\quad}$$

Ol studen oli yusum ol objek wetem ol gruping blong help long andastaning mo kalkuletem ol ansa blong operesen.

Tekem atensen blong olgeta long posisen o ples blong ol namba we oli multiplaem. Talem se, “Long wan multiplikesen ol namba i save jenisim posisen o ples be ansa i stap semak.”

Not blong Tija: Hemia hem i konsep blong komiutativiti long multiplikesen – posisen blong ol namba we yu multiplae i jenis be ansa i stap semak. Vokabulari ia i blong yu nomo olsem tija, no yusum wetem ol studen.

Aktiviti 13: Multiplikesen long laen mo long kolom

Raetem tufala operesen ia long bod:

$$2 \times 4 \quad 3 \times 5$$

Ol studen oli droem mining blong tufala operesen ia (gruping) long **laen** mo long **kolom**.

Oli save yusum ol kiub, ston, lif, lid blong botel, narafala objek o disaen, mo oli faenem ansa tru long kaonting blong ol objek.

Raetem operesen saed long droing olsem:

Long kolom

$$\begin{array}{r}
 \clubsuit \\
 \clubsuit \\
 \clubsuit \\
 \clubsuit \quad 4 \\
 + \quad + 4 \\
 \clubsuit \quad ---- \\
 \clubsuit \quad 8 \\
 \clubsuit \\
 \clubsuit \\
 \clubsuit \quad 4 \\
 = \quad \times 2 \\
 8 \quad ---- \\
 \quad 8
 \end{array}$$

Long laen

$$\begin{array}{r}
 \clubsuit \clubsuit \clubsuit \clubsuit + \clubsuit \clubsuit \clubsuit \clubsuit = 8 \\
 4 + 4 = 8 \\
 2 \times 4 = 8
 \end{array}$$

Aktiviti 14: Ademap i go long multiplikesen

Long aktiviti ia mekem oli jenisim wanwan operesen blong ademap long wan operesen blong multiplikesen sapos i posibol:

$$5 + 5 + 5 + 5 \quad 8 + 8 + 8 + 8 + 8 \quad 10 + 13 + 13 \quad 25 + 25 + 25 + 25 + 25$$

Afta oli raetem ol ademap we i representem ol multiplikesen ia:

$$\begin{array}{cccc}
 4 \times 5 & 5 \times 2 & 2 \times 5 & 3 \times 1 \\
 6 \times 3 & 7 \times 3 & 9 \times 2 & 2 \times 9
 \end{array}$$

Yusum ol ril objek sapos ol studen oli faenem i had.

Aktiviti 15: Riprisentem droing long operesen

Droem ol pija ia i go long bod mo askem ol studen blong raetem namba blong san yusum:

- ◆ 1 operesen ademap
- ◆ 2 wei blong mekem multiplikesen



Aktiviti 16: Yusum multiplikesen long problem

Raetem ol stori ia long bod mo givim taem long olgeta blong wok long hem.

“Mama i pem 5 net. Insaed long wanwan net i gat 4 anian. Hamas anian hem i gat evriwan?”

Ol studen mas kalkuletem namba blong evri anian yusum:

- ◆ wan ademap we namba i ript
- ◆ wan multiplikesen

Afta mekem semak wetem:

- ◆ Praes blong wan eksasaes buk i 95vt. Mata i pem 3 eksasaes buk. Hamas watu hem i spendem?
- ◆ Ol studen oli stanap long 4 laen. Long wan laen i gat 12 studen. I gat hamas studen everiwan we oli laen?

Aktiviti 17: Mekem stori

Givim tufala namba ia: 5 mo 11.

Ol studen oli mas mekem wan stori blong multiplikesen, askem kwesten, droem situesen mo ansa long problem.

Aktiviti 18: Dikomposem long multiplikesen

Raetem evri we blong dikomposem namba 24 yusum 2, 4, 6 mo 12.

Afta, raetem semak wetem ol multiplikesen olsem:

$$24 = \underline{\quad} \times \underline{\quad}$$

Not blong Tija: No foget blong komplitim tebol multiplikesen wetem ol ansa blong ol aktiviti.

Ol Kwesten Blong Asesmen

Ol studen oli save:

- ◆ jenisim posisen blong namba long wan multiplikesen be ansa stap se mak?
- ◆ riplesem wan adisen long wan dijit multiplikesen?
- ◆ riplesem wan adisen long wan dijit multiplikesen?
- ◆ riplesem wan multiplikesen long wan wan adisen?
- ◆ fulumap tebol blong multiplikesen wetem ol ansa blong ol operesen?
- ◆ kalkuletem multiplikesen long laen?
- ◆ mekem wan stori problem aot long 2 namba?

Oportuniti blong Asesmen

Talem long ol studen se praes blong 1 raba hem i 20vt. Kalkuletem sapos yu pem 2, 4, 5, 7, 10 raba. Oli save komplitim tebol ia:

1 raba	2	4	5	7	10
20vt					

Afta, ol studen oli raetem ol operesen andanit long tebol.

Eksampol:

$$2 \times 20vt = 40vt$$

Sapos eni studen oli faenem i had, mekem oli aktemaot blong helpem olgeta.

Tem 3, Wik 2

Ol Sab-stran: 1. Ful Namba (799–899) 2. Sep mo Anggel

1. Ful Namba

Lening Aotkam: NWN.3.V1 – Ridim, raetem, reipentem mo putum ol ful namba kasem 999 long oda, yusum ol defren materiel

Fokas blong ol aktiviti: 799 kasem 899

Ol Risos: Tebol blong numeresen, tebol blong ademap, ol slet blong ol studen

Vokabulari: Eit hundred, eit hundred mo wan kasem eit hundred mo naenti-naen

Ol Lening Aktiviti

Aktiviti 1: 799 i go long 800

Lukim Tem 2, Wik 1, Aktiviti 1 mo mekem semak wetem 799.

Aktiviti 2: Ridim tebol blong numeresen

Lukim Tem 2 Wik 8, Aktiviti 6: Droem long tebol blong numeresen Tael, Ten mo Yunit we i reipentem ol namba bitwin 799 mo 899. Ol studen oli ridim mo raetem long figa mo long wod.

Aktiviti 3: Kaontem ol namba

Letem ol studen oli kaon long even namba (798, 800, 802...) stat long 798 kasem 820. Afta mekem oli kaon long 5 stat long 895 i kam daon long 870 (895, 890, 885...). Mo mekem oli kaon long ol hundred stat long 190 kasem 890 (190, 290, 390...).

Aktiviti 4: Kaontem long paten

Wok wetem ol studen mo faenem paten blong namba paten ia mo letem oli komplitim i go long buk blong olgeta. Letem oli ansa long kwesten ia:

Wanem paten nao yu folem blong komplitim tebol?

790	805	820							895
-----	-----	-----	--	--	--	--	--	--	-----

Aktiviti 5: Komposem ol namba

Ol studen oli komposem namba yusum ol handred.

Eksampol:

$$700 + 100 = 800$$

Afta, mekem semak wetem:

$$\underline{\quad} + 200 = 800 \quad \underline{\quad} + 300 = 800 \quad \underline{\quad} + 400 = 800$$

$$200 + \underline{\quad} = 800 \quad 100 + \underline{\quad} = 800$$

Afta, yusum ol haf blong Ten blong komposem Handred.

Eksampol:

$$890 = 800 + 45 + 45$$

$$880 = 800 + \underline{\quad} + \underline{\quad}$$

$$870 = \underline{\quad} + \underline{\quad} + \underline{\quad}$$

$$824 = \underline{\quad} + \underline{\quad} + \underline{\quad}$$

$$850 = \underline{\quad} + \underline{\quad} + \underline{\quad}$$

Aktiviti 6: Fulumap tebol

Ol studen oli fuluap tebol ia:

Namba long figa	Namba long wod	Ples valiu	Dikomposem
			800 + 60 + 6
	Eit handred seventi-eit		
801			
		8 Handred, 9 Ten 1 Yunit	

Not blong tija: Yu save fulumap wan jat long wol blong klasrum o long wan eksasaes buk, raeting blong ol namba long figa mo wod blong helpem ol studen oli rimemba long speling.

Aktiviti 7: Namba we i kam bifo mo namba we i kam afta

Ol studen oli raetem stret namba we i kam bifo o afta long namba we i stap.

$$\underline{\quad} < 800 < \underline{\quad}$$

$$897 < \underline{\quad} < \underline{\quad}$$

$$\underline{\quad} < 879 < \underline{\quad}$$

$$865 < \underline{\quad} < 867$$

$$828 < \underline{\quad} < \underline{\quad}$$

$$\underline{\quad} < \underline{\quad} < 860$$

Aktiviti 8: Handred bifo mo Handred afta

Ol studen oli givim stret handred we i kam bifo o afta:

$$800 > \underline{\quad} > \underline{\quad}$$

$$\underline{\quad} > 500 > \underline{\quad}$$

Aktiviti 9: Smol, big mo ikwel

Ol studen oli putum stret saen long ol ples ia:

$$< > o =$$

$$893 \underline{\quad} 839$$

$$869 \underline{\quad} 896$$

$$819 \underline{\quad} 891$$

$$885 \underline{\quad} 885$$

$$881 \underline{\quad} 818$$

Aktiviti 10: Krietem ol namba

Ol studen oli save raetem evri posibol namba wetem ol namba ia: 6, 7, 8.

Aktiviti 11: KRA

Talemaot samfala namba bitwin 799 mo 899. Ol studen oli raetem namba long slet mo long signal blong yu i mas soemaot namba long slet blong olgeta. Korektem stret afta sapos i gat mistek, soem stret ansa long bod.

Eksampol: 801, 819, 898, 807, 817, 839, 895, 889, 888, 810

123
456
789

TEM 3

123
456
789

Ol Kwesten Blong Asesmen

Ol studen oli save:

- ◆ ol namba stat long 799 kasem 899?
- ◆ kaontem 5/5, 10/10 ol namba bitwin 799 kasem 899?
- ◆ raetem long wod mo long figa ol namba ia?
- ◆ droem Tael, Ba mo Kiub blong reipresentem 3-dijit namba?
- ◆ ridim mo talemaot Tael, Ba mo Kiub long namba?
- ◆ mining blong wanwan dijit blong wan 3-dijit namba?
- ◆ putum long oda ol namba stat long 799 i kasem long 899?
- ◆ tekem wan namba i go antap mo i kam daon long hundred?
- ◆ dikomposem ol namba bitwin 799 mo 899?
- ◆ krietem namba wetem trifala dijit: 6, 7, 8?

Opotuniti blong Asesmen

Askem ol studen blong raetem evri posibol namba wetem 5, 7, 8. Afta, oli putum olgeta long oda stat long smolwan i go long bigwan.

2. Sep mo Anggel

Lening Aotkam: GI.3.V1: Diskraebem ol spesel mak (karakteristik) blong ol komon (we oli save gud) tu- mo tri-daemensen sep mo objek.

Fokas blong ol aktiviti: Ol laen blong simetri

Ol Risos: Ol sep, ol grid, smol naef, sisis, pen o pensel, rula, waet pepa o katen, popo, banana, taro Fiji, navele o aranis, trifala grid wetem ol pija (**Apendiks 12**)

Vokabulari: Laen blong simetri, horisontol, vetikel

Ol Lening Aktiviti

Aktiviti 12: Simetri long frut (wetem tija)

Tekem popo, banana, taro Fiji, navele o aranis. Katem long medel mo folem longfala saed blong wanwan aelan kakae ia.

Putum bak tufala pis wan ples. Letem ol studen oli toktok wanem oli lukim, olsem: “I go gud wan ples. Tufala pis i semak, tufala i ikwel.”

Gaedem ol studen long toktok ia: “Wan pis i **simetrik long** narafala pis.”

Not blong Tija: Wetem ol samting we i no sekol yu mas soem simetri tru long longfala blong objek. Long wan objek we i sekol yu save katem i go long haf long eni saed blong gat 2 pis we oli ikwel.

Aktiviti 13: Simetri long frut (studen nomo)

Ol studen oli wok long grup blong 3. Serem ol kakae olsem anian, apol, pea, kastapol, tomato, aranis, lemon, avokado. Ol studen oli tajem frut, oli tantanem, oli faenem saed we bae oli katem folem blong mekem se i gat tingting blong simetri.

Lukluk gud insaed long ol grup mo help sapos i nid. Folem toktok blong Aktiviti 12.

123
456
789

TEM 3

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789

Aktiviti 14: Laen blong simetri (horisontol)

Kopi tebol ia mo serem wetem ol studen. Askem oli blong kaontem ol bokis long laen (horisontol wei) mo faenem medel blong laen o grid. Afta, oli tresem wan blaklaen i folem kolom i go daon.

Talem olgeta blong foldem pepa o grid ia folem blaklaen. Tufala pis blong grid o pepa i go wan ples. Blaklaen ia i seperetem grid long tu ikwel pis. Talem long ol studen se, “Blaklaen i laen blong simetri.”



Aktiviti 15: Laen blong simetri (vetikel)

Givim long ol studen bakegen wan grid we i semak long Aktiviti 14.

Talem olgeta blong kaontem ol bokis long kolom (vetikel wei) blong faenem medel blong kolom o grid. Tresem wan blaklaen i horisontol i go stret. Folem semak proses olsem long Aktiviti 14.

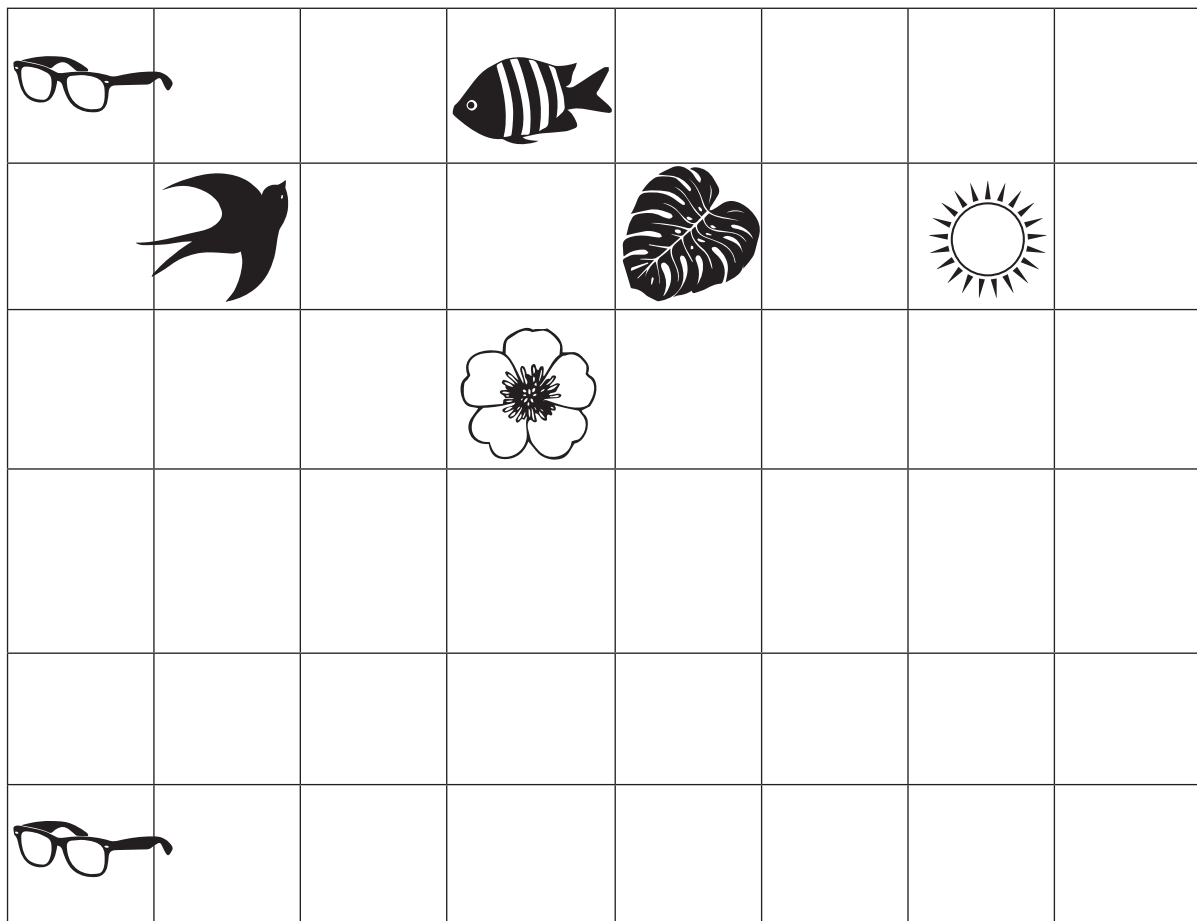
Talem long olgeta se, “Laen blong simetri, hem i save horisontol o vetikel.”

Soem olsem wanem blong mekem sapos eni studen i faenem i had.

Aktiviti 16: Plesem objek long bokis folem horisontol laen blong simetri

Kaontem ol bokis long vetikel kasem medel mo tresem wan blaklaen we i horisontol.

Talem ol studen blong fulumap narafala saed blong grid folem horisontol laen blong simetri (tufala saed i sud majem).



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TEM 3

Aktiviti 17: Plesem objek long bokis folem vetikel laen blong simetri

Talem ol studen blong kaontem ol bokis long horisontol blong faenem medel. Afta, oli tresem wan blaklaen we i vetikel long medel blong grid i go daon mo droem long ol raet-saed bokis ol objek ia blong mekem grid simetrikal.

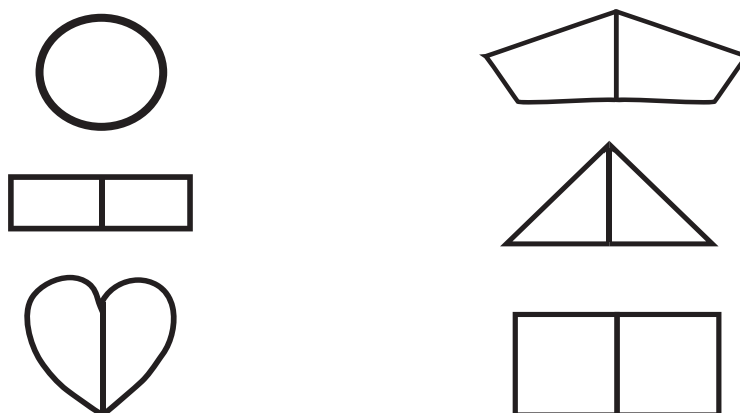
		◆					
♣							♣
■			😊	😊			
	◆						
		↑					
	△	⚽					

Afta, givim olgeta ol kopi blong trifala grid long Apendiks X mo aslem olgeta blong oli kaontem ol bokis long vetikel (kolom) kasem long medel blong grid. Oli tresem wan blaklaen mo mekem semak long Aktiviti 1. Long laswan grid, oli mas droem pija antap blong majem mo mekem grid i simetrikal.

Not blong Tija: Givim samfala mo aktiviti blong simetri long grid.

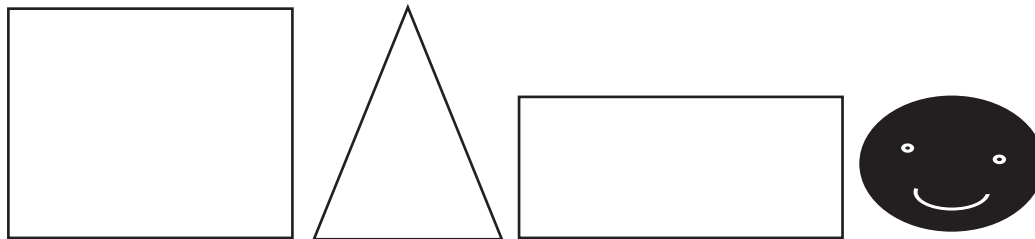
Aktiviti 20: Simetri long Sep

Kopi o droem ol sep ia long bod. Luk long eksampol mo askem ol studen blong droem laen blong simetri long kala.



Putum ol studen long grup blong 3. Serem big saes sep we yu bin katem finis long pepa,

Eksampol:



Ol studen oli foldem wanwan sep mo mekem sep i kam long 2 half (2 ikwel pis). Tresem wan laen folem mak blong foldem we i pas tru long sep.

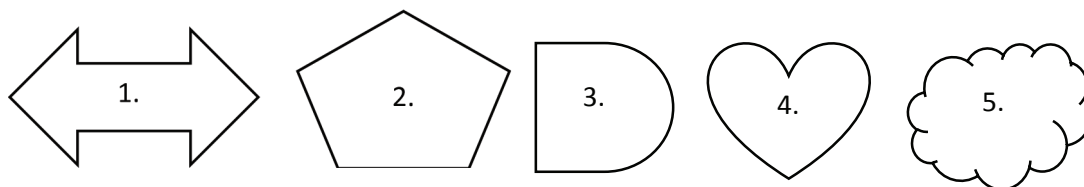
Oli raetem long laen ia: “Laen blong simetri”.

Rimaendem olgeta se skwea mo rektangel tufala i save gat 4 laen blong simetri. Trae-angel mo fes i gat wan laen blong simetri nomo.

Talem long ol studen se oli save faenem, “1 Sep i save gat 0, 1 o fulap laen blong simetri.”

Aktiviti 21: Droem simetri long Sep

Foto kopi ol sep ia mo givimaot long wanwan studen.



Askem ol studen blong droem evri laen blong simetri we i save gat long wanwan sep. Mekemsua ol pis oli ikwel.

Afta, talem oli blong fulumap tebol ia mo tikim stret bokis blong soem namba blong laen blong simetri.

Sep	0 laen blong simetri	1 laen blong simetri	Moa long 1 line blong simetri
1			
2			
3			
4			
5			

Aktiviti 22: Simetri long envaeromen

Oli go faenem 3 samting long neja o 3 objek we i save gat simetri long hem. Ol studen oli kolektem long neja: plant, animol, lif o long ol objek we man i mekem.

Hem i traem soem simetri ia tru long wei we hem i foldem long medel mo saedsaed i ikwel. Letem oli fuluamap tebol olsem hemia daon.

3 long neja we i gat tingting blong simetri long hem.	3 we ol pipol oli mekem i gat tingting blong simetri long hem
Flaengfokis Sel we i gat tu saed Bataflae	Fan Dres Glas blong ae

Ol Kwesten Blong Asesmen:

Ol studen oli save:

- ◆ katem wan frut long tu pis we i semak (ikwel)?
- ◆ horisontol (laen) mo vetikel (kolom)?
- ◆ mining blong laen blong simetri?
- ◆ faenem laen blong simetri blong wan pepa tru long folding?
- ◆ faenem wan laen blong simetri long wan grid tru long kaonting?
- ◆ plesem wan objek long wan bokis folem horisontol laen blong simetri?
- ◆ plesem wan objek long wan bokis folem wan vetikel laen blong simetri?
- ◆ komplitim narafala sead blong wan droing folem wan horisontol laen blong simetri?
- ◆ komplitim narafala saed blong wan droing folem wan vetikel laen blong simetri?
- ◆ faenem ol tingting blong simetri long envaeromen blong olgeta?
- ◆ pruvum wan simetri?
- ◆ faenem namba blong laen blong simetri long wan sep?
- ◆ talem ol sep we i gat laen blong simetri?

Opotuniti blong Asesmen

Givim samfala sep long ol studen. Ol studen oli talem sapos i gat laen blong simetri long olgeta sep ia o no. Oli tresem ol posibol laen blong simetri ia.

Tem 3, Wik 3

Ol Sab-stran: 1. Operesen 2. Longfala, Weit mo Kapasiti

1. Operesen

Lening Aotkam: NO.3.V1 – Solvem ol problem we i involvem ademap, tekemaot, mo multiplikesen yusum ol defren wei

Fokas blong ol aktiviti: Tekemaot long kolom wetem ol 2-dijit namba

Ol Risos: Tebol blong numeresen, tebol blong tekemaot, slet, jok, ol Yunifiks Kiub, ol sid, ston o lif

Vokabulari: Tekemaot

Ol Lening Aktiviti

Aktiviti 1: KRA

Askem long ol studen blong kaontem ol operesen tekemaot ia:

$$8 - 3 = \underline{\quad} \quad 15 - 5 = \underline{\quad} \quad 10 - 2 = \underline{\quad}$$

Jekem ol ansa blong olgeta wetem slet.

Aktiviti 2: Stori blong tekemaot

Talem long fulkas stori ia: “Long wan klas blong 57 studen, i gat 43 boe. Hamas gel i gat?”

Letem ol studen oli kalkuletem long wei blong olgeta.

Oli save ademap long laen: $43 + \underline{\quad} = 57$ o $57 - 43 = \underline{\quad}$

Oli save putum eni wan long tufala operesen long kolom

43 +	57–
....	43
—	—
—	—

Aktiviti 3: Sabtraksen wetem toktok blong tekemaot

Wok wetem operesen ia: $57 - 43$

Mekem ol studen oli yusum ol Yunifik Kiub blong help long andastaning. Oli putum o droem 5 Ba mo 7 Kiub blong representem 57. Afta, oli karemaot 4 Ba mo 3 Kiub blong representem 43.

Talem oli blong raetem hamas i stap: 1 Ba mo 4 Kiub. Talem oli blong raetem namba 14.

Afta droem situesen ia wetem Ba mo Kiub long tebol blong numeresen:

Ten	Yunit
5	7
4	3
1	4

Talem long olgeta se: “7 tekemaot 3 \rightarrow 4 i stap, yumi raetem 4 long ol Yunit. 5 tekemaot 4 \rightarrow 1 i stap, yumi raetem 1 long ol Ten”.

Ripitim samfala mo operesen tekemaot olsem wetem narafala namba.

Aktiviti 4: Kaontem ol tekemaot operesen

Talem ol studen blong putum ol operesen ia long kolom mo kalkuletem:

$$38 - 17 \quad 68 - 47 \quad 49 - 35 \quad 55 - 22$$

$$47 - 32 \quad 73 - 63 \quad 86 - 54 \quad 98 - 68$$

Aktiviti 5: Tekemaot long problem

Talem ol studen stori blong tekemaot ia:

“Long stat blong wan res, 86 rana oli stap long ples blong stat ran. Long taem we oli kam tru long en blong res, 35 rana nomo i stap. Hamas oli livim long res?”

Ol studen oli ridim stori mo oli yusum ol ston o wanem objek oli gat blong representem stori. Ol faenem hamas rana oli livim long res mo droem stori wetem objek we oli yusum

Afta, oli putum mo kaontem operesen tekemaot long tebol blong numeresen.

Ol Kwesten Blong Asesmen:

Ol studen oli save:

- ◆ kalkuletem wan operesen tekemaot wetem wan ademap we i no komplit?
- ◆ kalkuletem wan operesen tekemaot yusum toktok ia “tekemaot”?

Opotuniti blong Asesmen:

Givim long ol studen wan stori. “Wan bigfala bot i tekem 65 pasenja. Long fashala vilej, 22 pasenja i go daon.”

Ol studen oli ridim mo askem kwesten. Oli yusum objek blong reprintsentem stori mo droem ol objek mo putum namba operesen.

Afta, oli kalkuletem operesen yusum tebol blong numeresen mo ansa long kwesten.

2. Longfala, Weit mo Kapasiti

Lening Aotkam: NO.3.V1 – Solvem ol problem we i involvem ademap, tekemaot, mo multiplikesen yusum ol defren wei

Fokas blong ol aktiviti: Konvetem ol longfala

Ol Risos: Tebol blong mesamen, rula blong bod, rula blong studen, 30sm, 20sm

Vokabulari: Konvesen, konvetem

Ol Lening Aktiviti:

Aktiviti 7: Rimaenen: m i go long dm

Askem ol studen se, “I gat hamas desimita long 1 mita?”

Raetem: $1\text{ m} = \underline{\hspace{1cm}}\text{ dm}$

Ol studen oli yusum ol rula blong olgeta o tebol blong mesamen blong ansa.

Askem olgeta se, “I gat hamas sentimita long 1 desimita?”

Raetem: $1\text{ dm} = \underline{\hspace{1cm}}\text{ sm}$

Putum evri ansa long tebol ia:

m (mita)	dm (desimita)	sm (sentimita)
1		
	1	
		1

Aktiviti 8: Konvetem

Askem ol studen blong yusum tebol blong Aktiviti 7 blong raetem ol mesamen ia i go long:

dm: 2m, 7m, 5m, 9m, 8m

m: 40dm, 20dm, 30dm, 60dm

sm: 8dm, 4dm, 3dm, 6dm

dm: 30sm, 20sm, 40sm, 10sm

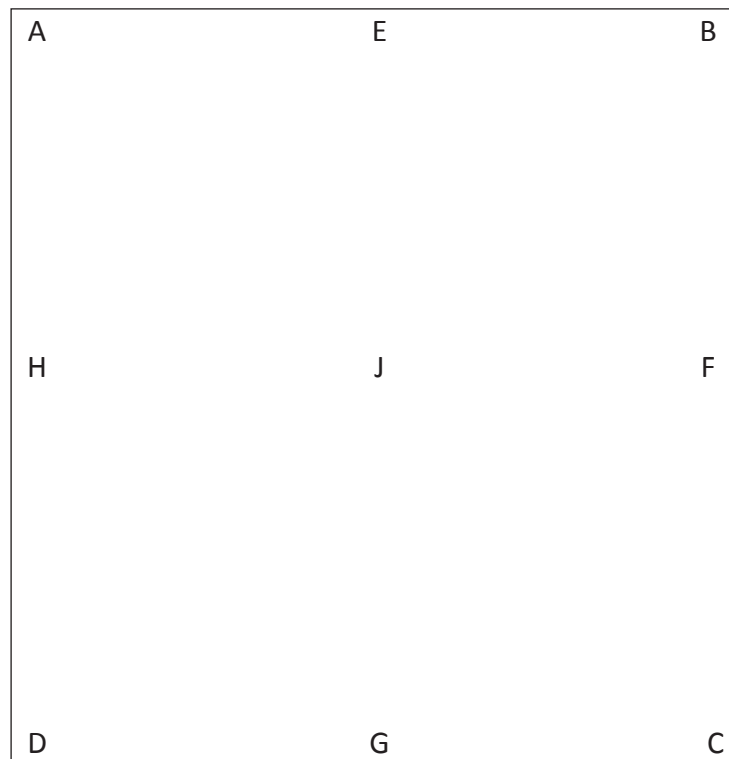
Aktiviti 9: Odarem

Raetem ol mesamen ia long bod mo askem ol studen blong putum oli long oda stat long sotfala wan i go long longfala wan. Oli save yusum tebol blong helpem olgeta. Mekem ol studen oli save se oli mas raetem ol mesamen ia i go long semak yunit bifo oli putum long oda.

30sm 5dm 1sm 4sm 7dm

Aktiviti 10: Mesarem ol laen

Mekem ol kopi blong skwea ia mo letem ol studen oli folem ol instraksen mo mekem ol aktiviti ia.



- ◆ Mesarem ol laen ia wetem rula:
 $AB = \underline{\hspace{1cm}} \text{sm}$, $BC = \underline{\hspace{1cm}} \text{sm}$, $CD = \underline{\hspace{1cm}} \text{sm}$, $DA = \underline{\hspace{1cm}} \text{sm}$
- ◆ Kalkuletem totol blong ol laen ia: $AB + BC + CD + DA = \underline{\hspace{1cm}} \text{sm}$
- ◆ Wanem nem blong sep? **Ansa:** ABCDA
- ◆ Hem i wan $\underline{\hspace{1cm}}$ from $\underline{\hspace{1cm}}$.
- ◆ Mesarem: $HF = \underline{\hspace{1cm}} \text{sm}$, $FC = \underline{\hspace{1cm}} \text{sm}$, $CD = \underline{\hspace{1cm}} \text{sm}$, $DH = \underline{\hspace{1cm}} \text{sm}$
- ◆ Kalkuletem totol blong ol saed: $HF + FC + CD + DH = \underline{\hspace{1cm}} \text{sm}$

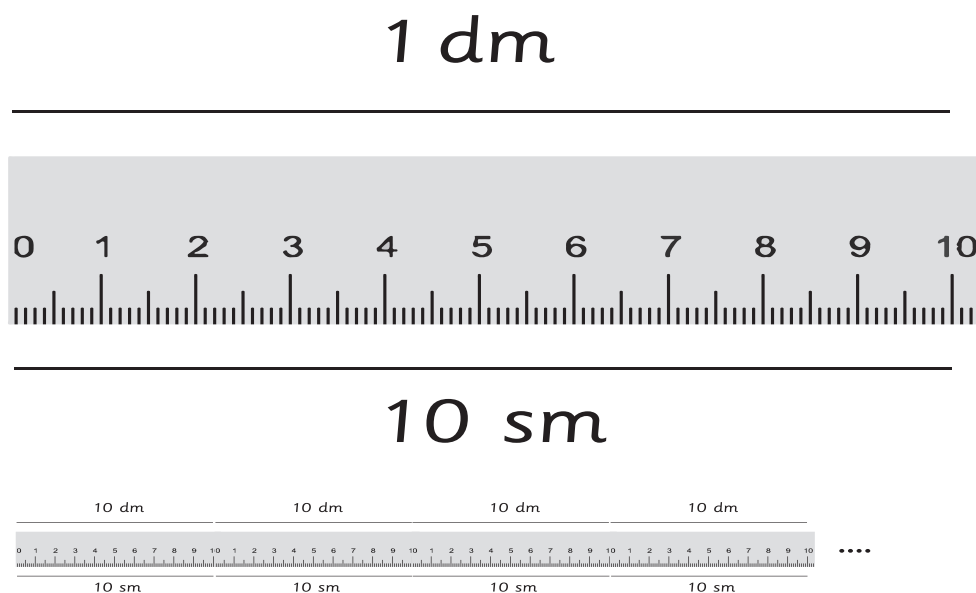
- ◆ Wanem nem blong sep: HFCDH?
- ◆ Hem i wan ____ from ____ .
- ◆ Mesarem laen blong
AJ = ____sm, JD = ____sm, DA= ____sm
- ◆ Kalkuletem totol blong ol laen ia: AJ + JD + DA = ____sm
- ◆ Wanem nem blong sep?
- ◆ Hem i wan ____ from ____ .
- ◆ Joenem ol poen EFGHE.
- ◆ Mesarem EF= ____sm, FG = ____sm, GH = ____sm, HE = ____sm
- ◆ Kalkuletem totol blong EFGHE = ____sm
- ◆ Wanem nem blong sep?
- ◆ From wanem? (Letem ol studen oli givim ol posibol ansa.)

Aktiviti 11: Luklukbak long ol rula

Mekem oli obsevem bigfala rula blong 1 mita. Rimaenem olgeta long namba blong desimita long 1 mita (10 desimita). Rimaenem long namba blong sentimita long 1 desimita (10 sentimita).

Aktiviti 12: Komperem desimita mo sentimita

Tresem long bod rula blong 1m olsem:



123
456
789

TEM 3

123
456
789

Mekem oli kalkuletem namba blong sentimita long 1 mita olsem ia:

$$10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 = 100\text{sm}$$

Jekem long rula blong bod blong jekim ansa. Oli sud konkludem se:

$$1\text{m} = 100\text{sm}$$

Krietem wan tebol blong mesamen: m, dm, sm.

Putum ol konvesen ia long hem

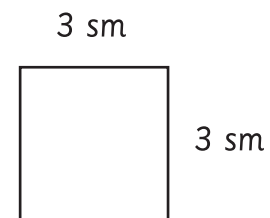
Aktiviti 13: Mesarem sep

Askem ol studen blong droem wan skwea we 4 saed blong hem i mesarem 5sm.

Askem ol kwesten blong jekem save blong olgeta, olsem “Wanem nem blong sep ia? From wanem?”

Hemia wan skwea, talem yes o no? Talem from wanem.

Letem oli stadi long sep ia mo askem ol studen blong droem wan skwea aot long hem mo Givim mesamen blong saed blong skwea ia.



Aktiviti 14: Putum mesamen long tebol mo ridim

Mekem ol studen oli putum mesamen ia long tebol blong konvesen.

Eksampol: 12dm, 45sm

Mekem oli ridim yunit we wanwan dijit i representem

m	dm	sm
1	2	
	4	5

1m mo 2dm →

4dm mo 5sm →

Mekem semak wetem:

224sm

68dm

892sm

99dm

Aktiviti 15: Ridim mesamen

Folem eksampol we i stap mo eksplenem olsem wanem blong ridim ol mesamen.

Eksampol: $735\text{sm} = 7\text{m } 3\text{dm mo } 5\text{sm}$

Askem ol studen blong mekem olsem wetem ol mesamen ia. Oli save yusum tebol blong mesamen blong helpem olgeta.

875sm 90dm 196sm 87dm

Aktiviti 16: Raetem wan mesamen i go long narafala yunit

Go tru long sam eksampol wetem ol studen bifo oli raetem wan mesamen i go long narafala yunit.

I go long **sentimita**:

$1\text{m} = \underline{\hspace{1cm}} \text{sm}$ $83\text{dm} = \underline{\hspace{1cm}} \text{sm}$ $8\text{dm} = \underline{\hspace{1cm}} \text{sm}$

I go long **desimita**:

$9\text{m} = \underline{\hspace{1cm}} \text{dm}$ $80\text{m} = \underline{\hspace{1cm}} \text{dm}$ $100\text{sm} = \underline{\hspace{1cm}} \text{dm}$

Mekem ol studen oli ridim gud mesamen insaed long tebol blong konvesen. Stat long mita i go long sentimita (lefsaed i go long raetsaed).

Faenem ansa long **dm** afta raetem long **sm**.

Eksampol: $3\text{dm} + 5\text{dm} = 8\text{dm} = 80\text{sm}$

Mekem semak wetem:

$4\text{dm} + 6\text{dm} = \underline{\hspace{1cm}} \text{dm} = \underline{\hspace{1cm}} \text{sm}$ $22\text{dm} + 8\text{dm} = \underline{\hspace{1cm}} \text{dm} = \underline{\hspace{1cm}} \text{sm}$

$64\text{dm} + 6\text{dm} = \underline{\hspace{1cm}} \text{dm } \underline{\hspace{1cm}} \text{sm}$ $8\text{m} = \underline{\hspace{1cm}} \text{dm} = \underline{\hspace{1cm}} \text{sm}$

Afta, oli komplitim, yusum tebol:

$68\text{sm} = \underline{\hspace{1cm}} \text{m } \underline{\hspace{1cm}} \text{dm } \underline{\hspace{1cm}} \text{sm}$ $58\text{dm mo } 5\text{sm} = \underline{\hspace{1cm}} \text{m } \underline{\hspace{1cm}} \text{dm } \underline{\hspace{1cm}} \text{sm}$

Sapos studen i faenem i had taem yu eskplenem aktivitia ia, traem letem ol narafala fren blong olgeta oli helpem olgeta.

Ol Kwesten Blong Asesmen:

Ol studen oli save:

- ◆ mining blong m, dm, sm?
- ◆ m, dm mo sm oli yunit blong mesarem longfala?
- ◆ se ol yunit dm mo sm oli moa smol long m?
- ◆ kaontem mo konvetem hamas desimita long 1mita?
- ◆ hamas sentimita long 1 desimita?
- ◆ hamas sentimita long 1 mita?
- ◆ putum ol mesamen long wan tebol blong konvesen?
- ◆ ridim mining blong wanwan dijit namba blong mesamen, long tebol blong konvesen?

Opotuniti blong Asesmen:

Droem wan rektangel ABCDA blong 5sm longfala mo 3sm sotfala. Kalkuletem mesamen blong evri saed blong rektangel ia.

Tem 3, Wik 4

Ol Sab-stran: 1. Taem 2. Probabiliti

1. Taem

Lening Aotkam: MT.3.V1 – Luksave mo andastandem ol yunit blong taem yusum wan kalenda mo 12 aoa klok (analog)

Fokas blong ol Aktiviti: Ridim taem

Ol Risos: Klok fes, analog taem, ol kopi blong klas taemtebol

Vokabulari: Analog taem, am, pm, sofala han, bighan

Ol Lening Aktiviti:

Aktiviti 1: Luklukbak long taem long kalenda

Ol studen oli wok wetem wan fren mo ansa long ol kwesten ia:

- ◆ Wanem dei yu go long skul?
- ◆ Wanem dei yu spel?
- ◆ I gat hamas wik long wan yia?
- ◆ Wanem namba 12 manis?
- ◆ Wanem taem bigfala holidei i stat mo i finis?
- ◆ Wanem namba 5 manis long wan yia?
- ◆ Wanem namba 10 manis?

Askem olgeta blong Kaontem ol namba blong dei long wan manis (30, 31) wetem bak blong wan han blong olgeta. Singaotem ol defren manis mo letem ol studen oli talem hamas dei long manis ia.

Studen i ansa yusum nomo han blong hem. No yusum kalenda. Ol studen we oli faenem i had oli save yusum kalenda.

Givim stori ia long olgeta: “Tri gel i bon long sem yia, Daina long Oktoba, Emilie long Februari, Silla long manis blong Jun. Hu long trifala i bon fastaem? Hu i moa yang? Putum nem blong olgeta stat long hemia we i bon fastaem kasem hemia we i laswan.”

Aktiviti 2: Taem mo aktiviti long wan dei

Bifo long lesen, mekem kopi blong klas taemtebol. Riviu long taemtebol tugeta. Askem ol kwesten ia blong riviu long taemtebol.

Long moning:

- ◆ Klas i stat long wanem taem?
- ◆ Brek taem long wanem taem?
- ◆ Klas i finis long wanem taem?

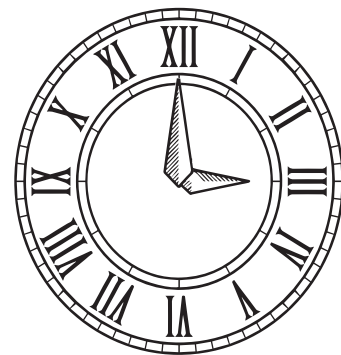
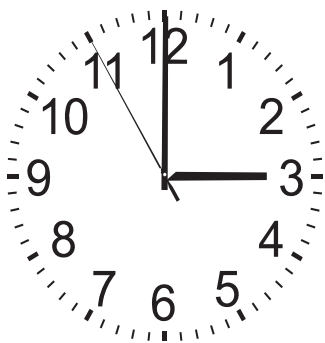
Long aftenun:

- ◆ Lanj long wanem taem?
- ◆ Wanem taem yu go bak long skul?
- ◆ Brek blong aftenun long wanem taem?
- ◆ Wanem taem yu go bak long haos?

Ol studen oli ansa, yusum klok blong helpem olgeta. Enkarejem olgeta blong yusum toktok olsem 9 klok moning o 2 klok aftanun.

Aktiviti 3: Ridim ol stret aoa taem

Soem klok long katen blong Tem 2, Wik 8, Aktiviti 15. Ol studen oli talem nem blong sotfala han mo rol blong hem i semak long longfala han. Ridim ol namba long skrin we i gat nomo ol namba mo Roman namba.



Ol studen oli ridimaot nomo ol taem ia afta givim samfala mo stret aoa long katen klok.

Nao, talem wan stret aoa long ol studen mo oli droem bigfala han blong aoa mo longfala han blong long klok fes we yu fotokopi o oli droem.

Aktiviti 4: Ridim haf blong aoa

Givim ol klok ia long ol studen. Oli lukluk mo traem ridim taem. Yu save helpem olgeta long eksplenem olsem:

Klok 1: Bigfala han i bitim 10 klok finis be i no kasem 11 klok yet, i minim se i 10 klok yet. Smol han i soem 6. Ol studen oli kaontem ol minit stat long 12 kasem $6 = 30$ minit.

Hem i minim se 10 klok i pas finis long 30 minit, mekem se yumi talem **30 minit pas 10 o haf pas 10**.

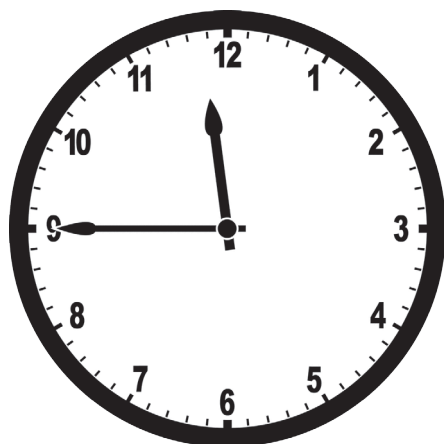
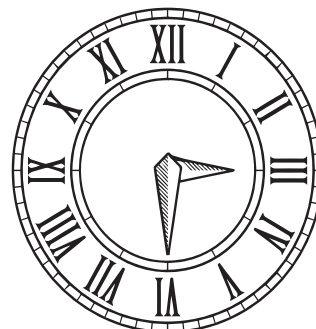
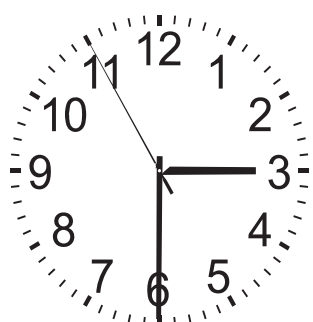
Klok 3 i semak taem.

From wanem toktok ia haf? Skrin i raon. Smol han i raonem haf blong skrin stat long 12 kasem $6 = 30$ minit. Kalarem haf blong skrin. Talem i gat tu haf blong skrin, 1 haf = 30 minit, narafala haf = 30 minit tu.

Talem long olgeta, “Aoa mo minit oli mesamen blong taem.”

Klok 2: Bigfala han i bitim 2 klok finis be i no kasem 3 klok yet, i minim se i 2 klok yet. Smol han i soem 6.

Ol studen oli kaontem ol minit stat long 12 kasem $6 = 30$ minit. Hem i minim se 2 klok i pas finis long 30 minit, yumi talem 30 minit pas 2 o haf pas 2.



Aktiviti 5: Ridim kwata blong aoa

Ol studen oli lukluk mo traem ridim taem. Helpem olgeta sapos oli nidim. Talem se bigfala han i soem 4, hem i 4 klok. Smol han i soem 3, i minim se 4 klok i pas finis.

Ol studen oli kaontem ol minit long skrin stat long 12 kasem $3 = 15$ minit.

Hem i minim se 4 klok i pas long 15 minit, yumi talem 15 minit past 4 o kwata pas 4.

Askem long ol studen, “From wanem toktok ia kwata?”

Talem se klok i raon i olsem wan kek. I olsem se yumi katem hem long fo pis.

Proposem samfala mo riding blong taem wetem toktok ia kwata pas long wan katen klok blong ol studen oli andastanem gud.

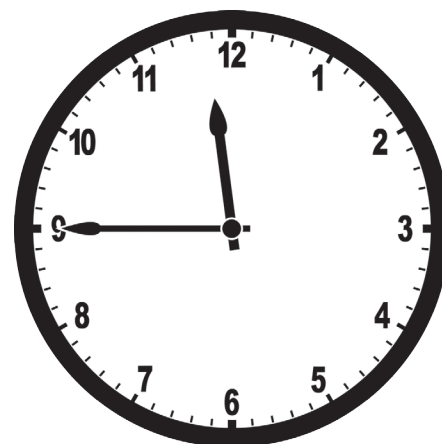
Talem taem wetem kwata pas, studen i putum han blong aoa mo han blong minit long raet ples long klok.

Aktiviti 6: Ridim analog mo dijital skrin

Ridim taem long analog klok ia – hem i 30 minit pas 7 o, haf past 7.

Long dijital klok, yumi save ridim: 7.30 o 30 minit pas 7 o, haf past 7.

Givim samfala mo taem olsem long tufala klok analog mo dijital klok mo askem ol studen oli ridim long tufala o trifala wei.



Aktiviti 7: Ridim aoa long am mo pm

Givim ol aoa long ol studen mo oli ridim taem talem am o pm. Givim samfala aoa long klok fes wetem toktok ia olsem 9 klok moning = 9 am mo 9 klok naet = 9 p.m. Eksplenem gud, afta lanj, medel dei yumi talem 1 pm kasem medel naet. Afta medel naet hem i 1 am kasem medel dei.

Ol studen oli ridim mo raetem tu long eksasaes buk blong olgeta.



Aktiviti 8: Ridim aoa long tufala wei

Askem ol studen blong fulumap tebol ia blong soem oli andastanem tingting blong “am” mo “pm”.

Afta medel naet	Yu talem o ridim	Afta medel dei	Yu talem o ridim
3 klok→		1 klok→	
6 klok		5 klok	
10 klok		11 klok	

Ol Kwesten Blong Asesmen

Ol studen oli save:

- ◆ talem ol dei blong spel mo ol dei blong skul?
- ◆ kaontem namba blong dei long wan manis?
- ◆ talem ol ivent long wan yia?
- ◆ ridim stret aoa?
- ◆ ridim aoa mo sam minit pas long aoa?
- ◆ talem ol defren taeming blong ol defren aktiviti long wan dei blong skul?
- ◆ talem taem blong wan aktiviti yusum moning mo aftenun?
- ◆ yusum am?
- ◆ yusum pm?
- ◆ talem taem blong wan aktiviti long wan dei yusum am?
- ◆ talem taem blong wan aktiviti long wan dei yusum pm?
- ◆ talem taem wetem toktok ia: haf past?
- ◆ talem wan taem wetem toktok ia: kwata pas.

Opotuniti blong Asesmen

Studen i mekem wan taemtebol blong ol aktiviti blong hem long wan Sande.

2. Probabiliti

Lening Aotkam: CDP.3.V1 – Aedentifaem, putum long grup mo diskraebem ol ivent we oli tekples long evridei laef long fasin blong janis

Fokas blong ol Aktiviti: Prediksen

Ol Risos: Ol vokabulari toktok we oli gat finis

Vokabulari: I sua/i hapen, i posibol/i save hapen/i save posibol, i no save hapen/i no posibol, i gat 50/50 janis, i gat mo janis, i gat hamas janis, i gat 7 janis aot long 14, praktisim

Ol Lening Aktiviti

Aktiviti 9: Toktok blong probabiliti

Mekem ol studen oli ridim ol toktok blong probabiliti olsem:

- ◆ mi sua, bae i ren tumoro
- ◆ mi lusum pensel blong mi, i save hapen se bae mi faenem bak long rum blong mi
- ◆ hem i posibol se bos blong mi bae i go visitim volkeno from fastaem ia hem i go long Tanna
- ◆ i save hapen se Fani i kam lukim yu nekis wik from hem i spel

Helpem ol studen oli yusum toktok blong andastanem ol vokabulari abaot janis blong samting i hapen o no.

Aktiviti 10: Eksplenem ol toktok blong prediksen

Ol studen oli mekem prediksen. Oli save yusum ol toktok long vokabulari.

Eksampol:

- ◆ i no posibol blong sta i kamaot long dei taem
- ◆ i save posibol se angel blong mi bae i kam nekis wik
- ◆ i save hapen se tim blong futbol blong Vanuatu i winim gem blong hem
- ◆ i gat 50/50 janis se sapos mi sakem koen, bae i foldaon long raetsaed

Aktiviti 11: Raetem toktok, yusum vokabulari blong prediksen

Putum ol studen long grup blong 3. Askem olgeta blong mekem ol prediksen blong olgeta. Oli raetem insaed long wan bigfala jat olsem eksampol ia.

Eksampol:

Probabiliti	Prediksen
I posibol	I posibol blong brata blong mi i kasem sam fis tedei
I no posibol	
I save posibol	
I gat 50/50 janis	

Aktiviti 12: Vobabulari blong prediksen

Yusum ol toktok ia blong diskraebem ol ivent:

Ivent	Toktok blong probabiliti	Sentens blong studen
San i blu	Imposibol	Hem i imposibol blong san i blu.
Tumoro	Sua	Mi sua se tumoro bae i kam.
I no long taem bae mi kros	I save posibol	
Malaria	I posibol	
Tim blong Vanuatu i winim oceania Kap	Prediksen	
I gat 5 selen long 50 vatu	Sua	
Nekis bebi long famili bae wan kel	50/50	
Vanuatu feri i kam long waf	I posibol	
Wokbaot blong go long skul	Sua	
Saeklon bae i kam	Prediksen	
Wan koen i save foldaon long baksaed	50/50	

Aktiviti 13: Prediksen long samfala situesen

Raetem trifala stori ia long bod mo letem ol studen oli wok long olgeta long grup.

Stori 1:

Mi wantem mekem wan laplap banana, bae mi save faenem banana wea? Mi mas jusum ples we i gat probabiliti blong faenem banana long hem: Long jaenes stoa? O long maket?

Ansa:

1. I imposibol, apu i no salem banana
2. I sua oli salem banana long maket

Tija i proposem samfala mo situesen olsem.

Stori 2:

Mi go long wan pati. Long pati ia i mas gat lokol kakae nomo. Mi jusum kakae we i gat probabiliti se hem i lokol:

1. Omelet
2. Sao bisket
3. Salad kumala

Ol studen oli ansa wetem 2 o 3 toktok blong probabiliti we oli save.

Stori 3:

Tedei i ren tumas. Mi no save mekem fulap aktiviti long haos. Wanem aktiviti nao mi no sua blong mekem?

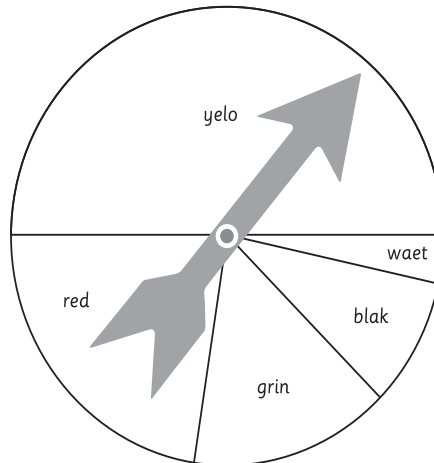
1. Katem kras
2. Go swim
3. Klinim glas blong windo
4. Mekem ol homewok blong mi
5. Pleplei wetem brata mo sista blong mi

Ol studen oli ansa wetem 2 o 3 toktok blong probabiliti we oli save.

Aktiviti 14: Gem blong wil

Krietem wan wil wetem wan aro long saed blong hem. Putum wan sekol long medel. Sekol ia i divaed long 5 kala: yelo, red, grin, blak, waet. Spes blong yelo kala i haf blong sekol, red i moa big long grin, grin i moa big long blak. Waet i smol spes nomo.

Eksampol:



Ol studen oli ges long wanem kala bae aro i soem mo afta 4 taem we yu tanem wil yusum stret vokabulari blong ekspresem ges blong olgeta.

Tanem wil 4 taem. Ol studen oli rikodem kala we aro i soem long wanwan raon.

Ol studen oli komperem ansa wetem prediksen blong olgeta. Givhan long olgeta blong talem se wanem kala nao i gat mo janis blong kamaot oltaem: Oli sud save se yelo i gat mo janis blong kamaot from hem i moa big spes.

Aktiviti 15: Prediksen long gem

Tekem ol objek ia i kam long klasrum: 4 ston, 7 sel mo 3 sid. Soem long ol studen mo putum i go insaed long wan smol aelan basket.

Eksplenem long ol studen se i gat 14 objek insaed long basket. Holem basket ia antap blong i no gat wan i save lukluk insaed. Askem 3 studen blong kam long fored mo tekem wan objek insaed long basket. Oli no mas lukluk insaed.

Rikodem hamas taem oli bin tekem wanwan objek:

Eksampol:

sid	ston	sel
0	1	2
0	0	3

Kontiniu long ol aktiviti wetem ol narafala studen. Enkarejem olgeta blong fulumap tebol. Helpem ol studen blong luksave se wanem objek nao i gat mo janis blong oli pulum hem mo from wanem?

Askem:

- ◆ I gat hamas objek evriwan? **Ansa:** 14 objek.
- ◆ Hamas sel, ston mo sid? **Ansa:** 7, 4, 3.
- ◆ Wanem objek nao mi gat mo janis blong pulum o tekemaot long basket? From wanem?

Eksplenem long ol studen se i gat mo janis blong pulum sel from i gat mo sel long ston mo sid.

Talem i gat **7 janis aot long 14** blong pulum o tekemaot wan sel long basket.

Aktiviti 16: Prediksen long gem

Putum ol studen long grup blong 4. Givim long wanwan grup wan kontena o bokis, wetem defren namba blong objek olsem, 5 sid, 10 ston mo 3 sel. Mekem olsem long Aktiviti 15. Ol studen oli praktis blong ges.

Enkarejem olgeta blong oli traem talem fastaem se long prediksen blong olgeta, wanem objek nao i gat mo janis blong oli pulumaot hem mo long bokis o kontena.

Ol studen oli pulum wan objek nomo long wan raon. Wanwan studen long grup i save pul 1 o 2 raon.

Rikodem ol ansa blong olgeta long wan tebol. Komperem ol ansa mo toktok abaot wanem objek i gat mo janis blong oli pulum.

Eksplenem from wanem. Talem se: Ston i gat 10 janis aot long 19, hem i 10/19

Enkarejem ol studen blong tokabaot ol ansa blong olgeta. Yusum ol toktok long vokabulari blong diskraebem ol janis, taem oli stap diskas mo talem from wanem oli pulum mo wan objek.

Ol studen oli traem semak aktiviti wetem defren namba blong objek. Oli komperem ol ansa blong olgeta. Wanem i hapen sapos ansa i semak?

Aktiviti 17: Gem: Raetsaed o baksaed

Plei gem blong Raetsaed mo Baksaed. Yu nidim wan koen.

Askem long klas bae koen i foldaon long wanem saed: raetsaed (hed) o baksaed (tel)? Evri studen i stanap. Oli putum tufala hand long fored o long baksaed blong soem ges blong olgeta.

Sakem koen. Ol studen oli ridim koen i foldaon long wanem saed. Olgeta we oli ges rong oli sidaon. Gem i kontiniu kasem wan studen i stap, hem nao i win.

Ol studen oli tingting long hamas janis i gat blong koen i foldaon long raetsaed o baksaed?
Talem janis blong foldaon long raetsaed o baksaed hem i **1 aot long 2** ($1/2$) 1 posibiliti
aot long 2 posibiliti.

Ol Kwesten Blong Asesmen:

Ol studen oli save:

- ◆ oli andestanem mining blong ol toktok blong probabiliti?
- ◆ ol defren level blong probabiliti we ol toktok ia i minim?
- ◆ yusum ol toktok ia long ol storian blong olgeta?
- ◆ raetem ol toktok ia taem oli ansa long wan kwesten?
- ◆ prediktem long wan storian?
- ◆ pridiktem long wan gem?
- ◆ rikodem ol ansa blong wan gem wetem ol objek mo talem from wanem namba blong wan objek i kamaot moa?
- ◆ ges long hamas samting i save hapen?

Oportuniti blong Asesmen

Talem long ol studen se, “Mi lukaotem wan gem we i save mekem 4 fren blong mi, mifala i plei semtaem:

- ◆ Jump long rop wetem 3 fren?
- ◆ Plei haed wetem fulap fren?
- ◆ Plei kad wetem 1 pleia?
- ◆ Stonem sel blong kokonas wetem 4 fren?

Ol studen oli ansa long wanwan kwesten, yusum toktok blong probabiliti.

123
456
789

TEM 3

123
456
789

Tem 3, Wik 5

Ol Sab-stran : 1. Longfala, Weit mo Kapasiti

2. Posisen mo Spes

1. Longfala, Weit mo Kapasiti

Lening Aotkam: MLWC.3.V1 – Estimetem, mesarem, komperem mo diskasem hevi mo kapasiti blong ol ting yusum ol standed metod

Fokas blong ol Aktiviti: Talem kapasiti long lita mo mililita

Ol Risos: Spun long wud mo long aean

Vokabulari: Lita, mililita

Ol Lening Aktiviti

Aktiviti 1: Mesamen long kap mo spun

Eksplenem long olgeta toktok ia: kapasiti. Givim 2 o 3 orol eksampol. Afta raetem stori ia long bod mo letem oli ansa long hem:

Jenny mo Lina tufala i mesarem kapasiti blong wan kap wota. Jenny i yusum wan spun long wud mo hem i faenem 14 spun. Lina i yusum spun long aean mo hem i faenem 12 spun. Wanem spun nao kapasiti blong hem i moa big? From wanem?

Sapos studen i faenem i had, aktemaot storian antap blong helpem olgeta.

Aktiviti 2: Namba blong lita

Talem long ol studen stori ia mo askem olgeta blong kalkuletem hem:

Wan stokipa i pem tri bigfala plastik kontena blong oel. Wan kontena i gat 5 lita oel. Hamas lita blong oel hem i pem?

Aktiviti 3: Namba blong kontena

Talem long ol studen stori ia mo askem olgeta blong kalkuletem hem:

Sam i gat 200 lita blong oel, hem i wantem salem oel ia long ol bigfala kontena blong 20 lita. Hamas kontena nao bae hem i fulumap?

Aktiviti 4: Kapasiti blong dram

Talem long ol studen stori ia mo askem olgeta blong kalkuletem kapasiti blong smol dram ia:

Blong fulumap wan smol dram, Tom i kapsaetem wan kontena blong kersin blong 20 lita mo wan narafala blong 35 lita. Wanem kapasiti blong dram?

Aktiviti 6: Kwantiti blong lita

Talem long ol studen stori ia mo askem olgeta blong kalkuletem wanem kwantiti blong fuel oli salem.

Tedei long wan stesen blong fuel, oli sevem 4 trak: 27 lita, 42 lita, 59 lita, 70 lita. Hamas fuel oli salem evriwan?

Aktiviti 7: Mesamen blong lita mo mililita

Talem long ol studen: “Blong soem lita yumi raetem **L**. Blong soem mililita yumi raetem **ml**.”

Raetem long bod ol kapasiti ia mo askem ol studen blong putum evriwan i go long tebol blong mesamen

600ml

547ml

4L

124ml

8L

L (lita)	ML (mililita)

123
456
789

TEM 3

Ol Kwesten Blong Asesmen:

Ol studen oli save:

- ◆ komperem konten blong tufala spun mo talem wijwan spun i gat mo kapasiti?
- ◆ kalkuletem namba blong kontena we bae oli fulumap aot long wan total kwantiti blong lita blong oel?
- ◆ kalkuletem kapasiti blong wan kontena aot long namba blong lita we oli fulumap long hem?

Oportuniti blong Asesmen

Talem long ol studen stori ia mo askem olgeta blong kalkuletem hem:

I gat 358 lita blong wota insaed long tank. I ren long las naet, 12 lita wota i bin foldaon. Hamas lita wota I gat long tank naoia?

2. Posisen mo Spes

Lening Aotkam: GT.3.V1 – Droem ol simpol map blong soem ol defren ples we oli save

Fokas blong ol Aktiviti: Ridim simpol plan long spes mo givim posisen long grid

Ol Risos: Kopi blong plan blong yad (**Apendiks 13**), plan blong klasrum (**Apendiks 14**), pika blong posisen blong ol studen (**Apendiks 15**), pija blong grid (**Apendiks 16**), posisen blong ol kakae (**Apendiks 17**), ol kopi blong traking map blong tropikal saeklon long fonbuk

Vokabulari: Ol toktok blong spes olsem yad, eria, daereksen, fored, bihaen, daon, raet kona, lef kona, medel, mo samfala moa

Ol Lening Aktiviti

Aktiviti 8: Plan blong eria

Mekem kopi blong plan blong yad long **Apendiks 13** mo givim long wanwan studen. Letem oli obsevem droing ia mo folem instraksen daon blong mekem aktiviti ia.

- ◆ Haos blong Samia i smol mo i gat waet ruf wetem 5 windo.
- ◆ Kalarem ruf blong hem long red mo tri we i stap klosap long grin.
- ◆ Hem i go pleplei long haos blong Leo. Long yad blong Leo i gat wan paen tri i gro. Tresem rod we Samia i folem blong go long haos blong Leo.

Aktiviti 9: Plan blong klasrum

Mekem kopi blong plan blong klasrum (**Apendiks 14**) mo givim long wanwan studen. Letem oli obsevem gud mo mekem ol instraksen we i stap daon.

- ◆ Sekolem doa long blu kala.
- ◆ Kalarem tebol we i stap long fored blong tija long yelo.
- ◆ Tresem rod we niufala studen i folem: hem i kam tru long doa, hem i pas long fored blong bod. Hem i stop long tebol blong tija. Afta hem i go sitaon long lasfala tebol bihaen long klasrum. Hem i sitdaon long raetsaed blong tebol.

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Aktiviti 10: Plan blong haos

Talem long ol studen oli droem wan simpol plan blong haos blong olgeta. Oli sud talem nem blong ol mein pat blong haos. Afta, wanwan i talem posisen blong ol defren pat blong haos.

Aktiviti 11: Plan blong skol

Askem ol studen blong mekem wan simpol plan blong skol blong yufala. Oli mas putum nem blong ol klas mo soem klas blong olgeta.

Afta, askem olgeta blong talem posisen blong klas blong yufala mo posisen blong ofis blong Prinsipol.

Aktiviti 12: Ridim posisen

Mekem ol kopi blong **Apendiks 15** mo givimaot long ol studen o smolsmol grup blong ol studen.

Askem olgeta blong givim posisen blong wanwan studen we i stap long pija ia yusum leta mo namba, folem eksampol.

Aktiviti 13: Putum objek folem posisen

Droem wan grid we i go A kasem E long horisontol laen mo 1 kasem 5 long vetikel laen. Askem ol studen blong droem ol objek ia long stret posisen long olgeta:

- ◆ sta, B2
- ◆ skwea, A5
- ◆ sekol, C5
- ◆ traeangel, D4

Afta, askem olgeta blong raetem sotfala rod (yusum leta mo namba) blong folem, stat long sta i go kasem traeangel:

Eksampol:

(B, 2), (B,3), _____, _____, (C,5)

Askem long ol studen:

- ◆ Hamas bokis yu mas muvum?
- ◆ I gat narafala rod yu save raetem? Hamas bokis blong hem?
- ◆ Raetem stret rod blong folem stat long rektangel i go long traeangel.

Aktiviti 14: Posisen long kros laen

Mekem kopi blong Apendiks 16 mo givimaot long ol studen.

Askem ol studen blong:

- ◆ Givim posisen blong blong sekol.
- ◆ Putum skwea mo sta long kros laen folem posisen we oli givim.
- ◆ Tresem aro long red kala blong soem sotfala rod blong folem stat long sekol i go long skwea.
 - I gat hamas aro?
 - I gat wan narafala rod i posibol tu?
 - Tresem long red aro. I gat hamas aro?
- ◆ Raetem tufala sotfala rod, yusum leta mo namba

Aktiviti 15: Faenem wan kros laen

Mekem ol kopi blong **Apendiks 17** mo givimaot long ol studen. Askem olgeta blong givim posisen blong kakae long grid, long leta mo namba.

Talem ol studen oli mas helpem Mista Rat i faenem ol kakae. Luk daereksen blong ol aro long tebol. I gat 3 aro, i minim se Rat i muv long 3 daereksen.

Oli tresem rod blong Rat yusum ol aro ia long red kala go kasem kakae. Afta, oli faenem kros laen we hem i aot long hem.

Helpem olgeta ansarem long kwesten blong tebol: “Rat i aot wea?” (Long wanem kros laen? Ansa long leta mo namba).

Aktiviti 16: Sot rod

Givim long wan studen tu rod we hem i save folem i kam long skul. Studen i talem hemia we i moa **sot** long wokbaot blong hem.

Afta, putum 2 studen long wanwan grup. Oli kontiniu long aktiviti ia we wan i proposem tufala rod, stat long haos o skul blong hem go kasem wan narafala ples. Narafala studen i jusum sotfala rod oat long tufala ia. Afta oli eksjenjem rol, narafala wan i proposem tufala rod.

Sapos oli no save gud, yu save helpem olgeta.

Aktiviti 17: Ridim map blong Vanuatu

Givim kopi blong saeklon traking map blong Vanuatu long evri studen o long ol smolsmol grup. Askem ol studen blong givim posisen blong ol aelan ia, yusum leta mo namba:

- ◆ Gaua
- ◆ Ambae
- ◆ Malekula
- ◆ Efate
- ◆ Tanna
- ◆ Anatom

Studen i ridimaot mo afta raetem long eksasaes buk blong olgeta.

Afta, yu ridimaot sam posien mo ol studen oli mas talem long yu wijwan aelan i stap long posisen ia

Ol Kwesten Blong Asesmen:

Ol studen oli save:

- ◆ talem rod we wan man i folem wetem ol toktok ia fored, bihaen, raet kona blong ol objek mo spes?
- ◆ soem haos blong wan man yusum diskripsen blong haos, tri we i gro klosap?
- ◆ givim simpl toktok blong soem wan ples?
- ◆ soem wan rod insaed long wan grid we i stat long wan poen i go long wan narafala wan?
- ◆ givim posisen blong wan aelen long grid?
- ◆

Opotuniti blong Asesmen

Givim long olgeta was posisen long grid eksampol (H,7). Ol studen oli soem posisen blong wan map mo talem ol aelan we i stap long eria ia.

Tem 3, Wik 6

Ol Sab-stran: 1. Ful Namba (899–999) 2. Paten

1. Ful Namba

Lening Aotkam: NWN.3.V1 – Ridim, raetem, reipresentem mo putum ol ful namba kasem 999 long oda, yusum ol defren materiel

Fokas blong ol Aktiviti: 899 kasem 999

Ol Risos: Bod, ol vokabulari toktok we oli gat finis

Vokabulari: Eit hundred naenti-naen, naen hundred, naen hundred wan kasem naen hundred naenti-naen

Ol Lening Aktiviti

Aktiviti 1: 899 i go long 900

Lukim Tem 2, Wik 1, Aktiviti 1 mo mekem semak wetwm 988 i go long 900.

Aktiviti 2: Kaontem

Letem ol studen oli kaontem long even namba (898, 900, 902____) stat long 898 kasem 920.

Afta mekem oli kaon long 5 stat long 855 i kam daon long 825 (855, 850, 845____).

Ademap 20 long wanwan namba blong list ia: 950, 860, 250, 965, 847, 938.

Tekemaot 20 long wanwan namba long semak list.

Aktiviti 3: Ridim tebol blong numeresen

Lukim Tem 2 Wik 8, Aktiviti 6 mo mekem semak wetem namba: 969.

Oli yusum Tael, Ba mo kiub blong mekem namba olsem 969. Afta, Oli ridim mo raetem long namba mo long wod olsem naen hundred sikisti-naen.

Givim samfala namba bitwin 899 mo 999. Ol studen oli droem yusum Tael, Ba mo kiub.

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Aktiviti 4: Komperem ol handred

Ol studen oli raetem ol saen < o > long list ia:

991 ___ 175	344 ___ 683
854 ___ 578	207 ___ 402
643 ___ 192	930 ___ 999

Aktiviti 5: Handred bifo mo afta

Askem ol studen blong givim Handred we i kam afta ol namba ia mo Handred we i kam afta.

Eksampol:

$600 < 725 < 800$

Mekem semak wetem ol namba ia: 724 889 636 505

Aktiviti 6: Krietem namba mo putum long oda

Askem ol studen blong raetem evri posibol namba wetem 9, 7, 8.

Afta, oli putum long oda stat long bigwan i kam long smolwan, afta stat long smolwan i go long bigwan.

Aktiviti 7: Raetem long namba o long wod

Enkarejem ol studen blong raetem ol namba ia long wod:

577 340 207 617 805 718 930

Mo ol namba ia long figa:

- ◆ fo handred teti-sikis
- ◆ eit handred fifti-fo
- ◆ faev handred foti-naen
- ◆ naen handred naenti-tu
- ◆ sikis handred mo tu

Aktiviti 8: Dikomposem mo valiu blong namba

Raetem tebol ia long blakbod mo go tru long sam eksampol tugeta wetem olgeta bifo oli save komplitim tebol olgeta wan.

Namba	Dikomposem namba	Valiu blong dijit
84	$80 + 4$	8 Ten mo 4 Yunit
786	$700 + 80 + 6$	
	$\underline{\quad} + \underline{\quad} + \underline{\quad}$	6 Handred 8 Ten mo 1 Yunit
	$800 + 90 + 4$	
		9 Handred mo 9 Yunit
999		

Aktiviti 9: Tekem namba i go antap long Ten mo Handred

Askem ol studen blong tekem ol namba ia oli go antap long Ten:

774 847 996 903 867 696

Afta, oli tekem ol namba ia oli go antap long Handred:

681 468 371 592 757

Aktiviti 10: Stori

Talem ol studen storia ia mo mekem oli wok long operesen ia long ol eksasaes buk blong olgeta.

“Ana i wantem pem wan sanglas blong 760vt, wan jea blong 425vt, wan bisket blong 95vt mo wan smol sopen blong 980vt. Praes blong wijwan objek i sas? Praes blong wijwan objek i no sas? Putum ol praes ia stat long hae praes i kam long praes we i daon.”

Sapos eni studen i faenem i had, yusum ol pija blong helpem hem.

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TEM 3

Ol Kwesten Blong Asesmen

Ol studen oli save:

- ◆ kaontem stat long 0 i go long 999?
- ◆ ridim mo raetem long figa mo long wod ol namba kasem 999?
- ◆ representem namba long tael, ba mo kiub?
- ◆ tekem wan namba i go antap long nekis Ten?
- ◆ tekem wan namba i go antap long nekis Handred?
- ◆ krietem namba wetem trifala dijit?

Opotuniti blong Asesmen

Askem ol studen blong wok wetem dijit ia: 9, 3, 1

Askem oli blong raetem tu namba we 9 i dijit blong Handred, olsem 913 o 931.

Afta, askem olgeta blong raetem tu namba we 1 i dijit blong Yunit, olsem 391 o 931.

2. Paten

Lening Aotkam: PT.3.V1 – Krietem, diskraebem mo finisim ol defren kaen paten yusum ol namba, sep mo ol tradisonal disaen

Fokas blong ol Aktiviti: Krietem ol paten

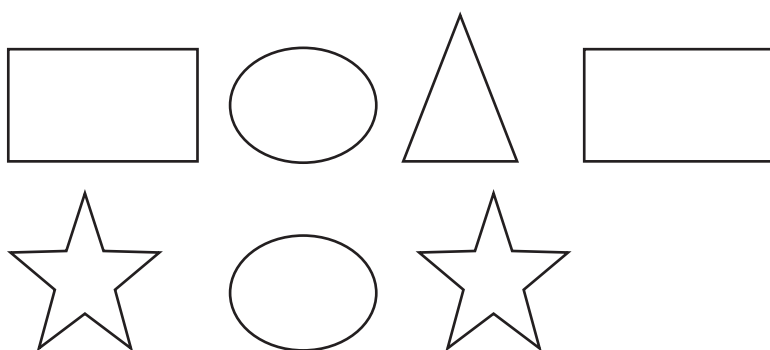
Ol Risos: Ol kiub, mabol, bidbid, sel, stik mo ston, string, nidel, kala, saes

Vokabulari: Paten

Ol Lening Aktiviti

Aktiviti 11: Paten we i jenis

Givim ol paten ia long ol studen mo letem oli kontinu olgeta. Afta givim taem long olgeta blong eksplenem wanem rul blong paten ia we oli stap wok long hem.



Givim samfala narafala paten bakegen mo letem oli wok long hem. Impoten fokas blong aktiviti ia i blong faenemaot se oli save wanem rul oli stap folem o no gat.

Aktiviti 12: Paten blong kala

Ol studen oli flasflasem klasrum yusum ol paten.

Grup1: Somap salusalu wetem pepa, yusum kala long paten: ABCD ABCD ABCD

Grup 2: Pentem renbo yusum saes, bigwan i go long smol wan.

Grup 3: Somap breslet wetem bidbid, yusum kala mo sep long paten

Grup 4: Glu kalakala pepa yusum paten ABCD ABCD ABCD long wan bigfala waet pepa.

Putumap ol paten long wol blong klasrum.

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Aktiviti 13: Paten we i gro (yusum namba)

Serem stik blong masis o smolsmol stik long ol studen. Askem long olgeta blong oli krietem samfala skwea wetem ol stik ia.

Ol studen oli rikodem hamas stik oli yusum long wanwan skwea mo rikodem namba blong skwea we oli krietem.

Mekem wan tebol mo putum ol infomesen insaed long tebol ia:

Namba blong skwea	1	2	3	4	5	6	7	8	9	10	_____	15	_____
Namba blong stik	4										28		80

Afta, askem long olgeta se:

- ◆ Sapos yu wantem mekem 15 skwea, hamas stik nao yu nidim?
- ◆ Sapos yu yusum 80 stik, hamas skea yu save mekem?
- ◆ Hao nao yu faenem ansa ia?

Mekem ol studen oli tingting long paten we i stap long wanwan laen.

Aktiviti 14: Tebol blong valiu

Krietem wan tebol we i gat semak rul o paten olsem tebol daon. Askem ol studen wanem paten o rul oli save luk long laen antap mo long laen daon.

1	2	3	4	5	6	7	8
6	12	18	24	30	36	42	48

Mekem ol studen oli obsevem ol namba long kolom o vetikel wei. Wanem paten oli luk?

Mekem ol studen oli raetem ol ansa long eksasaes buk blong olgeta. Putum long wan jat mo putum long wol.

Aktiviti 15: Paten long tebol

Putum tebol ia long bigfala saes pepa long wol o long bod. Ol studen oli wok wetem wan fren. Oli toktok abaot rilesensip bitwin ol namba long laen, mo long kolom.

Ol set blong 1	Ol set blong 5
1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40

Aktiviti 16: Paten long tebol

Givim long ol studen tebol ia wetem heding mo taetol. Ol studen oli fulumap ol namba. Oli jastifaem ol namba we oli yusum long wanwan kolom. Eksplenem paten o rul we oli stap long laen mo long vetikel o kolom.

Namba blong aoa long wan wik	
Namba blong dei	Namba blong aoa

Aktiviti 17: Namba laen

Askem ol studen blong luklukgud, ol namba ia:

8, 16, 24, 32, 40, 48, 56, 64, 72, 80, 88, 96, 104, 112, 120, 128, 136, 144

Askem, “I gat hamas namba evriwan?”

Askem ol studen blong droem wan tebol yusum ol namba ia mo jastifaem ol ansa blong olgeta. Oli mas talem rilesensip, paten o rul bitwin ol namba long laen mo long kolom blong tebol.

Afta, askem olgeta blong kontiniu patenn ia:

8, 16, 24, 32 ____

Mo adapap 5 long namba ia mo kontinu long paten:

144, ____, ____, ____, ____, ____

Aktiviti 18: Ges long paten mo rul

Wan studen i tingting long wan rul o paten. Ol narafala oli traem ges paten ia. Yusum ol namba kasem 20 fastaem.

Gem i go olsem:

Studen 1: “Mi gat wan namba, Tom givim wan narafala namba.”

Tom: “7”

Studen 1: “I mekem 14.”

Ol studen oli ges long rul we studen 1 i yusum. Studen we i faenem rul o paten we hem i adapap $7 + 7$ o 7×2 i mekem 14, hem nao i tingting long wan narafala paten o rul. Gem i gohed.

Mekem ful klas i patisipet mo diskas long ol paten o rul we oli yusum.

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Ol Kwesten Blong Asesmen

Ol studen oli save:

- ◆ ridim wan rul ABCD, blong folem long wan paten?
- ◆ mekem wan rul blong wan paten?
- ◆ mekem paten yusum ol objek mo kala?
- ◆ mekem paten yusum saes mo namba long objek mo kala?
- ◆ ridim wan tebol mo faenem rul o paten long laen?
- ◆ ridim wan tebol mo faenem rul o paten long kolom?
- ◆ mekem rul o paten long laen blong namba?
- ◆ mekem rul o paten long kolom blong namba?

Opotuniti blong Asesmen

Ol studen oli obsevem grid ia. Komplitim ol emti spes mo talem rul o paten long laen mo long kolom mo daeagonol.

+	5	7	9	11	13
3		10	12	14	16
5	10	12	14		18
7	12		16	18	20
9	14	16	18		22
11	16		20	22	24

Tem 3, Wik 7

Ol Sab-stran: 1. Ful Namba (0–999) 2. Longfala, Weit mo Kapasiti 3. Operesen

1. Ful Namba

Lening Aotkam: NWN.3.V1 – Ridim, raetem, representem mo putum ol ful namba kasem 999 long oda, yusum ol defren materiel

Fokas blong ol Aktiviti: Riviu 0 kasem 999

Ol Risos: Jat blong namba kasem 999

Vokabulari: Evri namba stat long sero kasem naen hundred naenti-naen, od, iven

Ol Lening Aktiviti

Aktiviti 1: Jat blong ol defren 100

Mekem 9 grup. Long wan grup i gat 3 o 4 studen. Serem bigfala waet pepa long wanwan grup. Askem oli tresem ol grid blong 10 bokis long evri saed. Wanwan grup i mekem wanwan hundred. Grup 1 i komplitim 100 → 199, Grup 2 i mekem 200 → 299 kasem Grup 9 i komplitim 900 → 999.)

Wanwan grup i presentem wok blong hem. Putum wetem jat blong 0 kasem 100, long wol blong klas.

Aktiviti 2: Valiu blong dijit

Mekem ol studen oli raetem mining blong 6 long ol namba ia:

- | | |
|------------------------------|-----------------|
| ◆ 826 | ◆ sikisti-sikis |
| ◆ seven hundred sikisti-tu | ◆ 667 |
| ◆ 616 | ◆ eiti-sikis |
| ◆ faev hundred sikisti-sikis | ◆ 166 |

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Aktiviti 3: Od mo iven namba

Ol studen oli sekolem ol od namba long list ia:

62, 728, 43, 51, 846, 34, 923, 846, 539, 57

Givim nem blong ol namba we oli no sekolem.

Aktiviti 4: Komperem namba

Ol studen oli komperem ol namba yusum saen $< o >$

475 ___ 953 324 ___ 847

437 ___ 448 224 ___ 575

483 ___ 297 973 ___ 734

Aktiviti 5: Odarem namba

Ol studen oli putum ol namba ia long oda stat long smolwan i go long bigwan:

824, 700, 75, 949, 200, 500

Aktiviti 6: Ol handred

Letem ol studen oli komplitim tebol ia:

Handred we i kam bifo	Namba	Handred we i kam afta
800	825	900
	203	
	195	
	479	
700		800
200		300

Aktiviti 7: Tekem namba i go antap long nekis Handred

Askem ol studen blong tekem ol namba ia oli go antap long nekis Handred:

681 < ___ 868 < ___ 371 < ___

592 < ___ 757 < ___

Raondem long ten haea. 374, 447, 896, 203, 267, 136

Aktiviti 8: Raetem long wod o long namba

Ol studen oli raetem ol namba ia long wod o long figa:

- ◆ 223
- ◆ Seven hundred fifti
- ◆ 809
- ◆ Fo hundred naenti- faev
- ◆ 689

Aktiviti 9: Dikomposem ol namba

Askem ol studen blong dikomposem ol namba ia:

$$194 = _ + _ + _ \quad 730 = _ + _ + _ \quad 925 = _ + _ + _$$
$$89 = _ + _ \quad 108 = _ + _ + _$$

Aktiviti 10: Komposem ol namba

Askem ol studen blong raetem evri posibol namba wetem ol dijit ia: 6, 5, 9

Ol Kwesten Blong Asesmen

Ol studen oli save:

- ◆ komplitim wan list blong hundred?
- ◆ talem valiu blong wan dijit?
- ◆ komposem mo dikomposem wan namba blong 1 mo 3-dijit?
- ◆ talem wan od namba?
- ◆ talem wan iven namba?
- ◆ komperem ol namba?
- ◆ putum ol namba long oda i go bigwan o i kam daon long smol namba?
- ◆ tekem wan namba i go antap long nekis Ten o Hundred?
- ◆ raetem wan mo 3-dijit namba long wod mo namba?

Opotuniti blong Asesmen

Wetem ol dijit: **1, 6, 9**, raetem evri ful namba we yu save raetem wetem ol dijit ia.

Afta, oli sekolem ol od namba long list blong ol namba ia mo raetem ol namba ia long wod. Mo tu oli save putum ol namba ia long oda stat long smolwan i go long bigwan.

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TEM 3

2. Longfala, Weit mo Kapasiti

Lening Aotkam: MLWC.3.V1 – Estimetem, mesarem, komperem mo diskasem hevi mo kapasiti blong ol ting yusum ol standed metod

Fokas blong ol Aktiviti: Konvetem ol yunit blong kapasiti

Ol Risos: Kontena, tebol blong mesamen long kapasiti

Vokabulari: Lita, mililita

Ol Lening Aktiviti

Aktiviti 11: Jusum stret yunit

Enkarejem olgeta blong raetem stret yunit long ol mesamen ia: **kilogram, dei, mita, mililita, watu, aoa** blong finism ol sentens ia.

- ◆ John i pem wan bag raes blong 25 _____
- ◆ Long moning mi skol 4 _____
- ◆ Wan wik i gat 7 _____
- ◆ Smol plastik wota hem i 60 _____
- ◆ Aet blong klasrum i bitwin 3 mo 4 _____
- ◆ Evridei mi pem bus 150 _____

Aktiviti 12: Wei blong yunit mesamen

Mekem ol studen oli wok wetem wan patna blong mekem aktiviti ia. Oli raetem we blong soem ol mesamen ia, olsem mita → m

- | | |
|-------------|------------|
| ◆ disimita | ◆ mililita |
| ◆ sentimita | ◆ lita |
| ◆ milimita | ◆ watu |
| ◆ kilogram | |

Aktiviti 13: Lita mo mililita

Bifo tija i givim aktiviti ia long ol studen, i gud blong mekem wan eksampol wetem olgeta fastaem.

Raetem ol kapasiti ia i go long mililita: $5L = \underline{\hspace{1cm}} \text{ mL}$

$$3L = \underline{\hspace{1cm}} \text{ ml}$$

$$9L = \underline{\hspace{1cm}} \text{ ml}$$

$$7L = \underline{\hspace{1cm}} \text{ ml}$$

Putum ol kapasiti ia stat long bigwan i go long smol kapasiti.

Raetem kapasiti ia i go long lita:

$$1000 \text{ ml} = \underline{\hspace{1cm}} \text{ l}$$

Aktiviti 14: Stori problem

Blong fulumap wan kontena, oli kapsaetem 5 taem kontena blong 4 lita. Kakuletem kapasiti blong kontena ia.

Aktiviti 15: Stori

Talem ol studen ol stori ia mo askem olgeta blong komplitim olgeta:

“Wan tank blong fuel i gat 989 lita. Oli salem 757 lita. Hamas lita blong fuel i stap?”

“Blong fulumap wan smol dram, oli kapsaetem konten blong wan kontena bensin blong 20 lita mo wan narafala kontena blong 35 lita. Kalkuletem kapasiti blong dram.”

Not blong Tija: Tija i save yusum eni kontena we i save faenem long konteks blong hem long aktiviti 14 mo 15.

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TEM 3

Ol Kwesten Blong Asesmen

Ol studen oli save:

- ◆ talem ol yunit blong mesamen blong mani, longfala, hevi, taem, kapasiti?
- ◆ raetem ol yunit blong mesamen?
- ◆ raetem lita i go long mililita?
- ◆ raetem mililita i go long lita?
- ◆ yusum yunit blong kapasiti long stori problem?
- ◆ raetem stori wetem ol kapasiti?

Oportuniti blong Asesmen

Askem ol studen blong mekem wan stori wetem tufala kapasiti ia: 154 lita mo 43 lita. Oli sud askem kwesten mo ansarem hem.

3. Operesen

Lening Aotkam: NO.3.V1 – Solvem ol problem we i involvem ademap, tekemaot, mo multiplikesen yusum ol defren wei

Fokas blong ol Aktiviti: Multiplikesen

Ol Risos: Tebol blong multiplikesen

Vokabulari: Multiplikesen, dikompos

Ol Lening Aktiviti

Aktiviti 17: Tebol blong 2

Mekem ol studen oli tekem 20 objek. Putum ol objek ia long ol grup blong 2. Kaontem hamas i stap long wanwan hip.

Raetem long wei blong matiplikesen: 10×2 o 2×10 .

Afta, oli kalkuletem: $10 \times 2 = 20$ o $2 \times 10 = 20$

Askem olgeta blong tekemaot 1 objek long wanwan hip mo kaontem hamas i stap.

Afta, raetem long wei blong wan multiplikesen: 9×2 o 2×9

Oli kalkuletem: $9 \times 2 = 18$ o $2 \times 9 = 18$

Kontiniu olsem kasem: $1 \times 2 = 2$ o $2 \times 1 = 2$

Putum ol ansa long wan kona blong bod. Talem long ol studen se hem i tebol blong multiplikesen long 2. Yu save mekem olsem wetem ol narafala wan dijit kasem 9.

Aktiviti 18: Dikomposem 1-dijit namba yusum multiplikesen

Ol studen oli komplitim ol operesen blong dikomposem ia:

$$8 = \underline{\quad} \times \underline{\quad}$$

$$8 = \underline{\quad} \times \underline{\quad}$$

$$8 = \underline{\quad} \times 1$$

$$12 = \underline{\quad} \times \underline{\quad}$$

$$12 = \underline{\quad} \times \underline{\quad}$$

$$12 = \underline{\quad} \times 1$$

$$18 = \underline{\quad} \times \underline{\quad}$$

$$18 = \underline{\quad} \times \underline{\quad}$$

$$18 = \underline{\quad} \times 1$$

Aktiviti 19: Multiplikesen long tebol

x	0	1	2
3	_____	_____	_____
4	_____	_____	_____
_____	_____	_____	_____

Eksplenem rol blong 0 long multipliksen yusum tebol blong multiplikesen.

Obsevem laen mo kolom blong 0. Talem long ol studen se taem yumi multiplaem wan namba long 0 i ikwel 0.

Afta, eksplenem 1 long multiplikesen yusum tebol blong multiplikesen.

Taem yumi multiplaem wan namba long 1 yumi faenem bak semfala namba. 1 i no jenisim wan samting.

Aktiviti 20: Stori problem

Raetem aktiviti ia blong pulum bak tingting blong olgeta bifo oli save mekem ol narafala aktiviti.

Mama i pem 2 bokis blong eg. Long wan bokis i gat 6 eg. Mama i pem hamas eg evriwan?

Aktiviti 21: Ademap mo multiplae long 10 mo 100

Givim ol studen ol operesen ia blong praktisim multiplikesen long ten.

$10 + 10 + 10 = \underline{\quad}$

$10 + 10 + 10 + 10 + 10 + 10 = \underline{\quad}$

$3 \times 10 = \underline{\quad}$

$\underline{\quad} \times 10 = \underline{\quad}$

$100 + 100 + 100 + 100 + 100 + 100 = \underline{\quad}$

$100 + 100 = \underline{\quad}$

$\underline{\quad} \times 100 = \underline{\quad}$

$\underline{\quad} \times 100 = \underline{\quad}$

$7 \times 10 = \underline{\quad}$

$30 \times 10 = \underline{\quad}$

$100 \times 8 = \underline{\quad}$

$10 \times 57 = \underline{\quad}$

$12 \times 10 = \underline{\quad}$

$10 \times 75 = \underline{\quad}$

$25 \times 10 = \underline{\quad}$

$10 \times 10 = \underline{\quad}$

$100 \times 10 = \underline{\quad}$

Aktiviti 22: Komplitim ol operesen

Askem ol studen blong klomplitim ol operesen ia

- ◆ $10 \text{ ten} = 10 \times \underline{\quad} = \underline{\quad}$
- ◆ $60 \text{ ten} = 60 \times \underline{\quad} = \underline{\quad}$
- ◆ $9 \text{ hundred} = 9 \times \underline{\quad} = \underline{\quad}$
- ◆ $5 \text{ hundred} = 5 \times \underline{\quad} = \underline{\quad}$

Aktiviti 23: Multiplae long 20, 30 mo 40

Ol studen oli mekem ol opersen ia blong praktisim multiplikesen:

$8 \times 20 = \underline{\quad}$	$20 \times 5 = \underline{\quad}$	$3 \times 20 = \underline{\quad}$	$9 \times 20 = \underline{\quad}$
$6 \times 30 = \underline{\quad}$	$9 \times 40 = \underline{\quad}$	$30 \times 8 = \underline{\quad}$	$8 \times 30 = \underline{\quad}$
$7 \times 40 = \underline{\quad}$	$5 \times 40 = \underline{\quad}$	$7 \times 30 = \underline{\quad}$	$40 \times 6 = \underline{\quad}$

Talem taem yumi multiplaem 1 o 2-dijit namba long 10, 100 o eni wan o 2-dijit we i finis long wan o 2 sero yu ademap semak namba blong 0 long namba we yu multiplaem.

Aktiviti 24: Stori

Talem long ol studen stori ia mo askem oli blong kalkuletem hem:

“Wan lokol bred hem i 100vt. Wanem praes blong 5, 8 mo 10 bred?”

Ol Kwesten Blong Asesmen

Ol studen oli save:

- ◆ kalkuletem wan multiplikesen long laen?
- ◆ dikomposem 1-dijit namba wetem multiplikesen?
- ◆ rol blong 0 long multiplikesen blong 1 o 2-dijit namba?
- ◆ rol blong 1 long multiplikesen?
- ◆ multiplaem 1 o 2-dijit namba long 10, 100, 20, 30 mo 40?
- ◆ komplitim multiplikesen tebol blong multiplikesen?

Opotuniti blong Asesmen

Talem long ol studen stori ia mo askem oli blong kalkuletem hem:

“Praes blong 1 aranis hemi 100vt. Hamas praes blong 6, 8 aranis?”

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456
789

TEM 3

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Tem 3, Wik 8

OI Sab-stran: 1. Operesen 2. Man

1. Operesen

Lening Aotkam: NO.3.V1 – Solvem ol problem we i involvem ademap, tekemaot, mo multiplikesen yusum ol defren wei

Fokas blong ol Aktiviti: Tekemaot wetem boro

OI Risos: Tebol blong tekemaot, OI Yunifiks Kiub, tebol blong numeresen

Vokabulari: Boro, boroem

OI Lening Aktiviti

Aktiviti 1: Wei blong boroem

Raetem operesen ia long bod: $352 - 137$

OI studen oli droem long tebol blong numeresen yusum Tael, Ba mo Kiub we i reipientem 352.

Askem oli blong tekemaot 1 Tael 3 Ba mo 7 Kiub we i reipientem **137**.

Letem ol studen oli wok olgeta no moa. Pas long ol grup blong jekem aktiviti. Bae ol studen oli faenemaot se i no posibol blong tekemaot 7 kiub long 2 kiub.

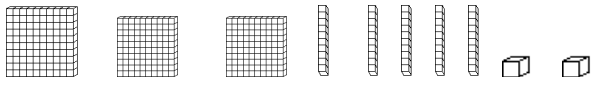
Oli mas boroem olsem:

- ◆ tekemaot fastaem 1 ba long 5 ba (352), 4 ba i stap
- ◆ 1 ba = 10 kiub, i go wetem 2 kiub i mekem 12 kiub
- ◆ yumi gat nao 3 Tael 4 Ba mo 12 kiub. Askem ol studen blong tekemaot nao, 1 tael 3 ba mo 7 kiub
- ◆ yumi faenem 2 tael 1 ba mo 5 kiub

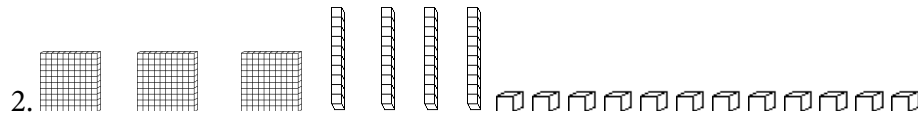
Mekem aktiviti ia bakegen plante taem kasem ol studen oli andastanem tingting blong “boro”.

Aktiviti 2: Droem situesen blong boro

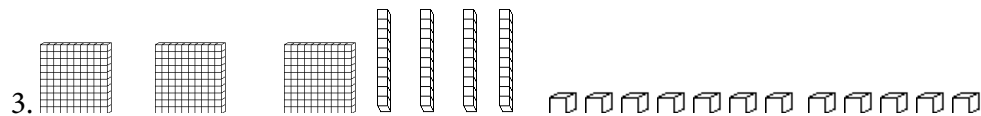
Droem materiel blong reprisentem 352 long bod. Soem ol step blong *Aktiviti 1*.

1.  (352 – 137)

Rimaenem, yumi no save tekemaot 7 Kiub long 2 Kiub.



Yumi boroem 1 Ba i go long Yunit i mekem 12 kiub.



Yumi tekemaot 1 Tael 3 Ba mo 7 kiub. I gat 2 tael 1 ba mo 5 kiub i stap.

Afta, putum operesen long kolom:

$$\begin{array}{r} 3 \quad 5(4) \quad (1)2 \\ - \quad 1 \quad 3 \quad 7 \\ \hline \end{array}$$

Tokbaot ol proses blong boro

- ◆ Yumi no save tekemaot 7 long 2 Kiub, yumi boroem 1 Ba = 10 Kiub i go long 2 kiub i mekem 12.
- ◆ Yumi tekemaot 7 long 12 Kiub o Yunit, 5 i stap.
- ◆ Yumi raetem 5 long las kolom.
- ◆ Yumi kontiniu blong tekemaot i go long ol Ten, yumi tekemaot 3 long 4, 1 Ten i stap, yumi raetem 1 long las kolom.
- ◆ Yumi go long ol hundred, yumi tekemaot 1 Tael long 3. Raetem 2 long las kolom.

Ripitim proses ia tugeta long bod.

Aktiviti 3: Boroem long Yunit

Ol studen oli mekem ol operesen tekemaot ia wetem boro. Oli yusum tebol blong numeresen, ol Kiub, Ba mo Tael o oli droem operesen blong helpem andastaning.

$$\begin{array}{r} 561 \quad 73 \quad 235 \quad 835 \quad 184 \quad 780 \quad 765 \\ -147 \quad -59 \quad -106 \quad -526 \quad -79 \quad -454 \quad -146 \end{array}$$

Mekem sam moa operesen olsem blong ol studen oli kasem gud.

Aktiviti 4: Boroem long ten

Ol studen oli mekem ol operesen tekemaot ia wetem boro long ol Ten. Oli yusum tebol blong numeresen, ol Kiub, Ba mo Tael o oli droem operesen blong helpem andastaning.

$$\begin{array}{r} 307 \quad 936 \quad 247 \quad 373 \quad 905 \quad 428 \\ -214 \quad -683 \quad -161 \quad -180 \quad -451 \quad -175 \end{array}$$

Mekem sam mo operesen olsem blong ol studen oli kasem gud. Helpem gud ol studen we oli faenem i had.

Aktiviti 5: Tekemaot long stori

Talem long ol studen ol stori ia mo ol studen oli mas kalkuletem tufala folem tingting blong tekemaot wetem boro.

“Wan mama we i stap somap i pem wan rol blong tred blong 145m. Hem i yusum finis 37m. Hamas mita blong tret i stap iet long rol?”

“Wan sto i risivim 425 bred long moning. Long aftenun, 34 bred yet i stap. Hamas bred oli salem finis?”

Ol Kwesten Blong Asesmen

Ol studen oli save:

- ◆ yusum tebol blong numeresen blong mekem wan operesen tekemaot wetem boro?
- ◆ yuum ol Kiub blong mekem wan operesen tekemaot wetem boro?
- ◆ yusum droing blong helpem andastaning long boroem?
- ◆ yusum tebol blong tekemaot blong mekem ol tekemaot operesen?
- ◆ proses blong boro long Yunit?
- ◆ save proses blong boro long ol Ten?
- ◆ save mekem operesen tekemaot wetem boro long kolom?
- ◆ mekem wan tekemaot operesen wetem boro long Yunit long wan stori problem?
- ◆ mekem wan operesen tekemaot wetem boro long Ten long wan stori problem?

Opotuniti blong Asesmen

Talem long ol studen storia ia mo askem olgeta blong kalkuletem hem.

“Paskal i givim 505vt blong pem wan kontena blong aeskrim blong 475vt. Hamas watu bae oli givim bak long hem?”

2. Mani

Lening Aotkam: MLWC.3.V1 – Estimetem, mesarem, komperem mo diskasem hevi mo kapasiti blong ol ting yusum ol standed metod

Fokas blong ol Aktiviti: Komplitim wan amaon mo givim bak mani

Ol Risos: Ol not blong 200vt, 500vt, 1000vt, ol koen

Vokabulari: Eksjenisim

Ol Lening Aktiviti

Aktiviti 1: Raet daes mo baksaed

Soem ol koen blong 5, 10, 20, 50, mo 100vt, long ol studen. Oli obsevem gud mo talem ol komen blong olgeta: wanem i semak, wanem i defren.

Ol studen oli luk se long evri koen i gat wan saed we kastom man i stap long hem. Talem long olgeta: saed ia hem i raet saed, narafala saed hem i baksaed blong koen. Mekem semak wetem ol not blong 200vt, 500vt, 1000vt.

Askem ol studen oli putum evri koen long raet saed. Ol studen oli luk se long saed ia ol amaont blong mani i no kamaot long hem.

Aktiviti 2: Mekem wan amaont

Asekm ol studen blong fuluma tebol ia soem hamas koen o not oli nidim hamas blong mekem ol amaon ia.

Amaon	100vt	200vt	500vt	1000vt
500				?
200				?
100		2 koen	?	?
50	?	?	?	?

Aktiviti 3: Eksjenis

Raetem wan semak aktiviti olsem long bod mo go tru long hem tugeta wetem ol studen bifo oli save wok long trifala stori blong eksjens ia long wanwan buk blong olgeta.

- ◆ Simon i gat ol mani ia: 100vt, 100vt, 100vt, 50vt, 50vt, 50vt, 20vt, 20vt, 10vt. Hem i save eksjenisim ol koen ia wetem wan not o no gat? Sapos hem i yes, talem wanem not?
- ◆ Lina i wantem eksjenisim not blong 1000vt blong hem wetem koen blong 100vt. Bae hem i gat hamas koen?
- ◆ I gat 20 koen blong 50vt. Mi save eksjenisim wetem wanem not?

Aktiviti 4: Not i go long koen

Raetem tufala tebol ia long bod mo letem ol studen oli kopi i go long eksasaes buk blong olgeta mo fulumap. Hamas koen oli nidim blong mekem ol valiu blong ol not ia?

1 not blong 500vt	___ koen blong 100vt
	___ koen blong 50vt
	___ koen blong 20vt

1 not blong 1000vt	10 koen blong ___
	20 koen blong ___
	2 not blong ___

Aktiviti 5: Stori

Mekem wan o tu orol stori olsem tufala stori long aktiviti ia bifo yu save letem ol studen oli wok long tufala stori ia long wanwan buk blong olgeta.

- ◆ Erik i gat 275vt. Hem i spendem 130vt. Hamas vatu i stap?
- ◆ Blong pem wan buk, Katrin i givim wan not blong 500vt, wan koen blong 100vt mo wan narafala koen blong 20vt. Wanem praes blong buk? Sapos hem i givim 1000vt, bae oli givim bak hamas long hem?

Aktemaot ol stori sapos eni studen i faenem i had.

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TEM 3

Ol Kwesten Blong Asesmen

Ol studen oli save:

- ◆ raet saed (hed) mo baksaed (tel) blong wan koen o not?
- ◆ kalkuletem mani we i nidim blong komplitim wan amaont?
- ◆ eksjenisim wan amaont blong not i go long koen?

Opotuniti blong Asesmen

Talem stori ia long ol studen mo askem ol studen blong ansarem ol kwesten.

“Long wan stoa: basket blong skul i 230vt, wan bokis blong kala pensel i 155vt, wan sises 540vt.

Praes blong wanem objek i moa hae long 200vt? Praes blong wanem objek i daon long 300vt? Praes blong wanem objek i bitwin 200vt mo 300vt?

Tem 3, Wik 9

Ol Sab-stran: 1. Handelem Data 2. Longfala, Weit mo Kapasiti

1. Handelem Data

Lening Aotkam: CDHD.3.V1 – Kolektem, putum long wan oda, mekem diskasen mo save talemaot wanem infomesen i minim long ol defren wei

Fokas blong ol Aktiviti: Kolektem infomesen mo putum long tebol

Ol Risos: Tebol wetem infomesen long envaeromen blong ol studen mo long klasrum

Vokabulari: Blak, poen (dot)

Ol Lening Aktiviti

Aktiviti 1: Ridim infomesen wetem namba

Putum ol studen oli go long 4 grup.

- ◆ Grup 1: 8 boe, 6 gel
- ◆ Grup2: 7 boe, 4 gel
- ◆ Grup 3: 5 boe, 5 gel
- ◆ Grup 4: 9 boe, 3 gel

Askem ol studen blong oganaesem ol infomesen ia mo komplitim tebol:

	Grup 1	Grup 2	Gup 3	Grup 4
Boe				
Gel				
Total				

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Aktiviti 2: Ridim infomesen wetem ba mo kala long kolom

Tekem ol semfala infomesen long Aktiviti 1: Ridim infomesen wetem namba.

Prisitem ol infomesen abaot wanwan grup ia long graf. Finisim blong kalarem tebol.

Komperem namba blong boe mo gel long wanwan grup, wanem grup i gat plente studen bitim ol narafala grup?

Mekem wan eksampol fastaem mo oli studen oli luk bifo oli save wok olgeta nomo.

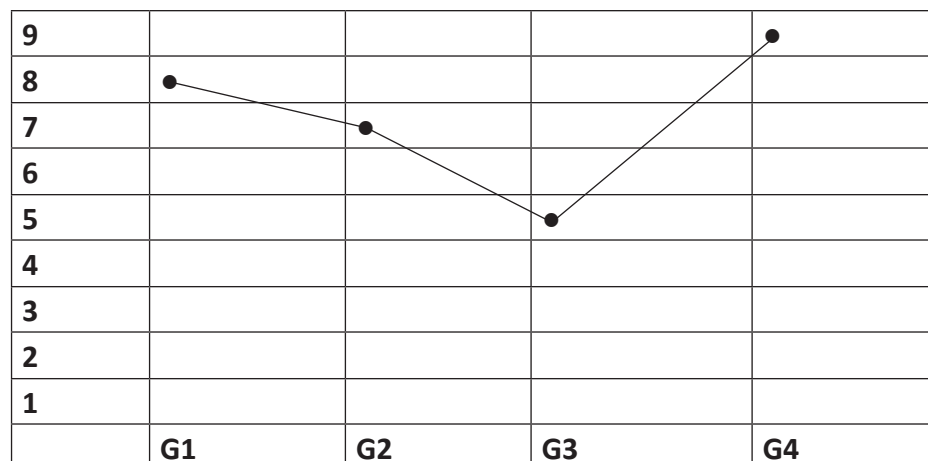
	Boe	Gel	Boe	Gel	Boe	Gel	Boe	Gel
9								
8								
7								
6								
5								
4								
3								
2								
1								
	G1		G2		G3		G4	

Putum infomesen blong wanwan grup long kolom mo kala. Semak aktiviti, prisitem nomo ol gel blong wanwan grup. Semak aktiviti prisitem nomo ol boe.

Aktiviti 3: Ridim infomesen wetem daereksen blong aro

Yusum semak infomesen long Aktiviti 1 blong givim infomesen long aktiviti ia. Ol studen oli putum wan blak poen long grid blong talem namba blong ol boe. Droem wan aro we i joenem ol blak poen ia stat long G1 i go long G4. Komperem namba blong ol boe long wanwan grup folem ol aro.

Talem: “Namba blong boe i stap antap long 8 i go daon long 5 afta i go bak antap long 9.”



Mekem semak aktiviti wetem namba blong ol gel mo wetem total namba blong wanwan grup.

Aktiviti 4: Mekem stori problem aot long tebol

Ol studen oli ridim tebol ia mo ansa long samfala kwesten we yu save askem olsem:

- ◆ I gat hamas gel long Klas 6?
- ◆ Long wanem klas namba blong ol gel i semak?

Askem olgeta blong mekem wan stori wetem infomesen we i stap long tebol.

	Klas 2	Klas 3	Klas 4	Klas 5	Klas 6
Gel	12	10	13	11	12
Boe	8	14	7	12	10

Aktiviti 5: Ridim infomesen long tebol

Wok wetem ol studen blong komplitem tebol ia. Letem ol studen oli stadi long tebol mo komperem ol infomesen ia bifo oli ansa long ol kwesten, olsem:

Wijwan klas i gat plante gel bitim ol narafala klas?

Wijwan klas i gat smol namba blong ol boe nomo?

- ◆ I gat hamas gel long skul ia?
- ◆ I gat hamas boe evriwan?
- ◆ Wijwan klas i gat fulap studen bitim evri narafala klas?
- ◆ I gat hamas studen long klas 5?

Mekem eksampol fastaem mo oli studen oli luk bifo oli save wok wanwan.

	Klas 2	Klas 3	Klas 4	Klas 5	Klas 6	Totol
Gel	12	10	13	11	12	?
Boe	8	14	7	12	10	?
Totol	?	?	?	?	?	

Aktiviti 6: Yusum tebol

Yusum ol infomesen long tebol long Aktiviti 5 mo droem ol graf we bae i soem ol infomesen. Mekem semak olsem long Aktiviti 2. Droem graf blong ol gel nomo long evri klas, graf blong ol boe nomo long evri klas, graf blong total blong ol gel mo ol boe long evri klas.

Afta, mekem wan o tu grup i wok long wan kaen graf. Letem oli wok long eksasaes buk nomo o oli save raetem i go long bigfala pepa mo putumap long klas blong evriwan i save luk.

Ol Kwesten Blong Asesmen

Ol studen oli save:

- ◆ tekem infomesen long simpol tebol wetem totol blong namba?
- ◆ tekem infomesen long wan tebol kolom mo kalkuletem totol?
- ◆ ridim infomesen long tabol wetem aro?
- ◆ tekem infomesen long tebol mo mekem stori wetem?
- ◆ jenisim wan tebol kolom i go long wan tebol wetem aro?

Opotuniti blong Asesmen

Talem long ol studen se Mama i salem ol paenapol long maket.

Long Mande hem i salem 10, Tusde: 9, Wenesde: 11, Tasde: 11, Fraede: 15.

Mekem wan tebol. Putum ol dot blong soem ol paenapol. Droem aro blong soem hamas paenapol mama i salem long ol dei ia.

2. Longfala, Weit mo Kapasiti

Lening Aotkam: MLWC.3.V1 – Estimetem, mesarem, komperem mo diskasem hevi mo kapasiti blong ol ting yusum ol standed metod

Fokas blong ol Aktiviti: Ol yunit blong weit

Ol Risos: Ol defren weit blong defren hevi, ol flaskad blong Aktiviti 7

Vokabulari: Weit, hevi, gram, kilogram

Ol Lening Aktiviti

Aktiviti 7: Kilogram (kg) o gram (g)

Mekem o faenem ol flaskad wetem ol samting ia:

- | | |
|------------|----------|
| ◆ elephant | ◆ puskat |
| ◆ apol | ◆ raba |
| ◆ boe | ◆ pensel |

Raetem mesamen ia “kg” mo “g” long bod. Soem ol flaskad long ol studen mo letem ol volentia oli kam pikimap wanwan kad mo pestem o selotapem aninit long stret yunit blong hem long bod.

Diskasem ol yunit tugeta mo mekem koreksen. Eksplenenem tufala yunit ia long ol studen mo givim sam mo eksampol.

Aktiviti 8: Putum long oda

Nerri i hevi long 28kg, Ben 25kg, Willy 40kg mo Lorna 35kg.

Askem ol studen blong putum ol pikinini ia long oda blong weit stat we i moa hevi kasem hemia we i no hevi tumas.

Aktiviti 9: Estimetem weit

Ol studen oli save wok long tebol ia long klas o oli save go faenemaot wetem ol memba blong komuniti blong olgeta olsem homwok.

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TEM 3

Wijwan weit i moa stret bitim ol narafala weit?

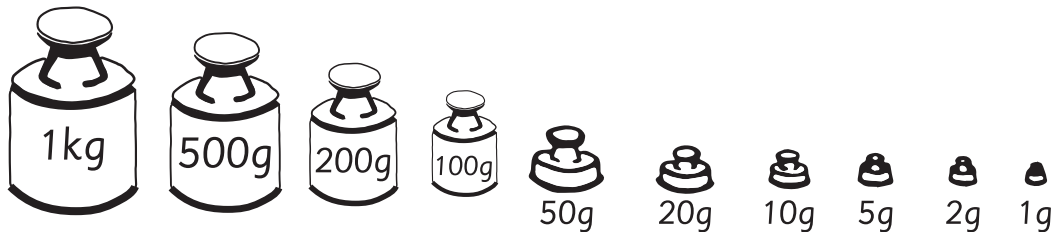
Wan bebe	8g	3kg	25kg
Wan big basket kraka	3kg	7g	375g
Wan bigfala man	80kg	10g	750g
Wan paket lipton	3g	50g	10kg

Aktiviti 10: Komperem hevi

Askem ol studen blong kalarem weit we i moa hevi:

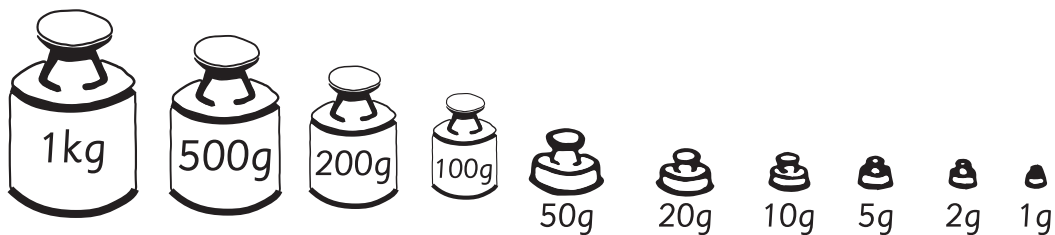
10kg	10g
800kg	900g
13kg	25kg
96g	90g
700g	70kg

Aktiviti 11: Komposem weit



Droem o kopi ol weit ia blong soem long ol studen. Talem olgeta se, “Mi wantem mekem 786g. Bae mi nidim hamas long ol weit ia? Droem ol weit ia blong soem 786g.

Eksampol: 786g.



Afta, askem olgeta blong droem ol weit blong soem

498g 1000g 430g

Aktiviti 12: Weit long multiplikesen

Talem long ol studen se wan katen i gat 12 paket blong 1kg suga. Long lafet long vilej, oli pem 3 katen blong mekem kek. Kalkuletem long kg hamas weit blong suga oli pem.

Aktiviti 13: Weit long tekemaot

Talem long ol studen se Papa i pem 50kg blong raes blong planem. Hem i planem 15kg finis. Hamas kg i stap yet blong planem?

Ol Kwesten Blong Asesmen

Ol studen oli save:

- ◆ putum raet yunit long wan objek?
- ◆ estimetem hevi blong wan objek?
- ◆ kalkuletem total weit blong ol objek?
- ◆ komperem hevi blong ol objek?
- ◆ putum long oda ol defren weit?
- ◆ mekem weit wetem ol mas?

Opotuniti blong Asesmen

Givim long ol studen trufala weit ia: 345g mo 789g. Askem olgeta blong mekem wan stori, askem kwesten, mo ansa long problem.

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TEM 3

Tem 3, Wik 10

Ol Sab-stran: 1. Paten 2. Fraksen

1. Paten

Lening Aotkam: PT.3.V1 – Krietem, diskraebem mo finisim ol defren kaen paten yusum ol namba, sep mo ol tradisonal disaen

Fokas blong ol Aktiviti: Ol paten long saon, muvmen mo at

Ol Risos: Instramen blong mekem saon, ol kopi blong namba jat

Vokabulari: Saon, noes, bit

Ol Lening Aktiviti

Aktiviti 1: Paten long saon

Mekem ol grup blong 4. Askem long ol studen blong mekem paten long saon yusum leg, hand mo fingga. Oli priperem paten blong olgeta mo kam soem long klas.

Talem paten we oli harem olsem, “Klap! Klap! Klap!” o “klapklap! Klapklap! Klapklap!” Evriwan i lisen mo talem wanem oli harem.

Aktiviti 2: Paten long muvmen

Talem long ol studen se fulap long ol kastom danis blong yumi oli folem nomo ol paten blong muvmen folem singsing o miusik. Givim wan opotuniti long olgeta blong mekem wan simpol muvmen blong wan paten folem wan singsing o yu save tekem wan memba blong komyuniti blong soem wan kastom danis we i riptim paten blong muvmen.

Yu save mekem oli singsing ol kores tu we oli gat ol aksen we oli riptim olsem: *Thumbs up* o *Father Abraham*.

Aktiviti 3: Paten long kala

Mekem paetem we i gru long ol defren kala blong ol sep. Oli save mekem wetem ol defren sep olsem ol lif o ol wod blong alfabet. Oli save mekem paten i gru i kam bigwan o i kam smol.

Eksampol:



Aktiviti 4: Paten long namba

Mekem ol kopi blong namba jat kasem 100.

Ol studen oli wok wetem wan fren. Askem ol studen blong wanwan i faenem 3 paten we i stap insaed long list blong ol namba kasem 100. Oli diskas mo kam soem long evriwan.

Aktiviti 5: Paten long sep o disaen

Mekem paten yusum ol sep o disaen. Ol studen oli jusum ol sep we hem i wantem. Talem long olgeta oli mas folem paten ia: ABCC ABCC ABCC...

Ol Kwesten Blong Asesmen

Ol studen oli save:

- ◆ mekem paten wetem saon?
- ◆ mekem paten wetem muvmen?
- ◆ mekem paten paten yusum kala?
- ◆ mekem paten we i gru?
- ◆ mekem paten stat long bigfala saes i go long smol saes?
- ◆ faenem paten aot long wan list o tebol blong namba?
- ◆ mekem paten folem rul?

Opotuniti blong Asesmen

Askem ol studen blong droem wan sep long A4 pepa. Afta, oli droem 3 kala laen folem ol saed blong sep. Oli mas mekem bigfala laen sep ia i kam smol laen sep (paten we i big i go smol), semtaem we yu stap kala laen i kam long medel blong sep. Dikorettem klasrum wetem

2. Fraksen

Lening Aotkam: NF.3.V1: Divaedem wan hip blong ol objek i go long ol smol hip we oli semak

Fokas blong ol Aktiviti: Haf, dabol, kwata mo ted

Ol Risos: Ol buk blong olgeta

Vokabulari: Dabol, haf, ted, kwata

Ol Lening Aktiviti:

Aktiviti 6: Mekem dabol mo haf

Givim wan eksampol bifo ol studen oli save wok long aktiviti ia.

Talem long ol studen, mi gat 4 mabol. Mi plei long brektaem mo mi winim 4 mabol bakegen. Mi gat hamas mabol naoia?

Askem olgeta blong mekem operesen: $4 + 4 = 8$.

Talem 8 i **dabol** blong 4. I minim se yu ademap semak kwantiti long wanem we i stap finis:

$$4 + 4 \quad \text{o} \quad 2 \times 4 = 8.$$

Askem ol studen blong givim **dabol** blong: 4 1 2 3 5

Talem haf blong wan namba hem i taem yu serem wan hip blong objek i go long 2 hip we i ikwel namba

Ol studen oli givim **haf** blong: 10 4 12 20 6

Sapos eni studen i faenem i had, yu save yusum ol konkrit materiel blong soem ol tingting blong haf mo dabol.

Aktiviti 7: Stori wetem dabol

Givim tufala aktiviti ia olsem wan tingting eksasaes.

- ◆ Sam mo Willy tufala i go lukaotem troka long solwota. Tufala i kams mo kaontem ol sel we wanwan i pikimap. Sam i pikimap 15 troka. Willy i kasem dabol blong wanem Sam i pikimap. Hamas troka nao Willy i pikimap?
- ◆ Papa planem 40 stamba blong banana. Hem i salem haf finis long maket. Hamas nao hem i katem blong salem?

Aktiviti 8: Rimaenem haf blong wan yunit

Rimaenem ol studen long toktok ia haf. Droem wan sep mo kalarem haf long hem.

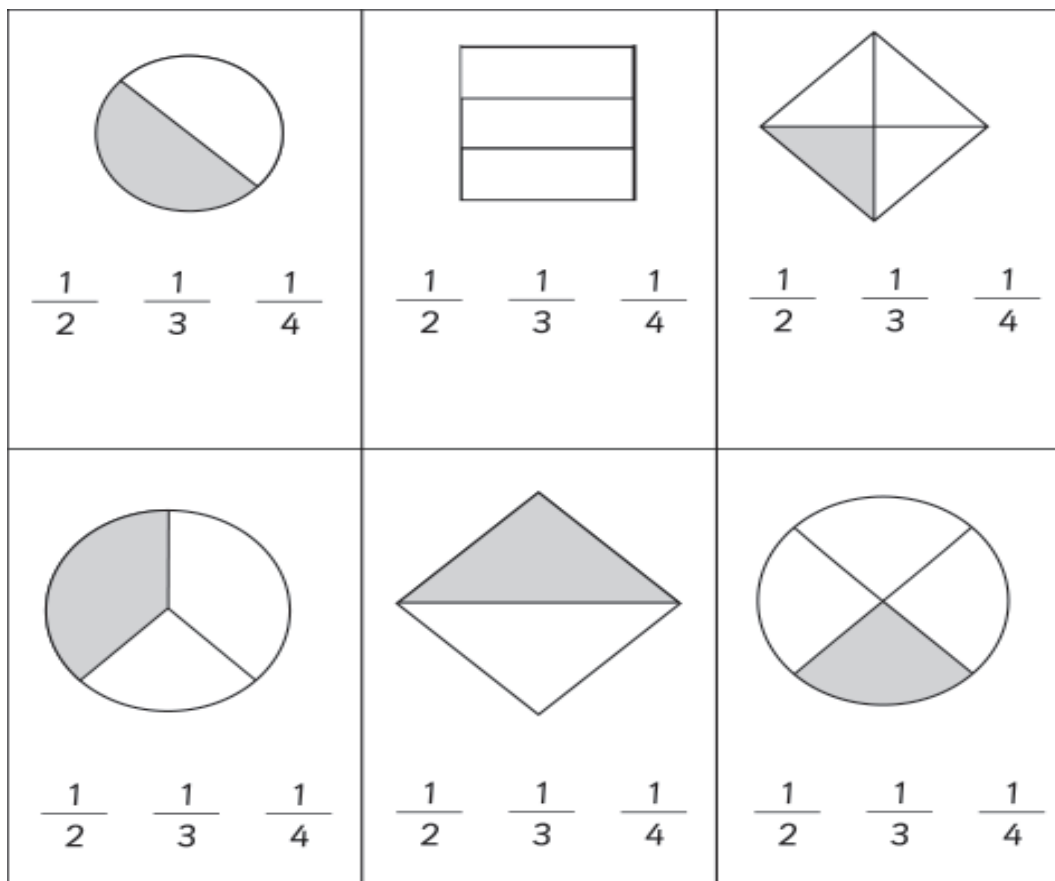
Eksampol:



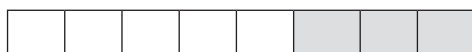
Askem ol studen blong droem wan sep long buk blong olgeat mo kalarem 1 aot long 2 pis, raetem $\frac{1}{2}$ mo talem "haf". Givim samfala mo eksampol blong haf wetem ol narafala sep o objek.

Aktiviti 10: Jusum fraksen

Givim wan o tu eksampol long bod bifo oli mekem aktiviti ia. Askem ol studen blong kaontem namba blong pis long ol droing ia mo sekolem fraksen we i soem.



Afta, askem ol studen blong kaontem namba blong pis mo hemia we oli kalarem mo raetem fraksen we i soem.



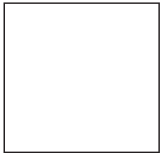
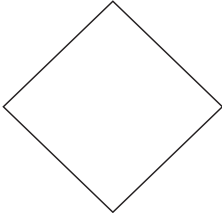
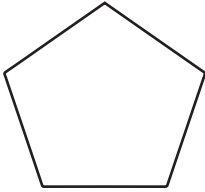
Aktiviti 11: Tekem wan pis

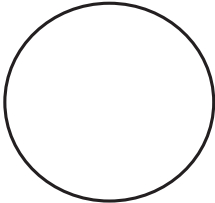
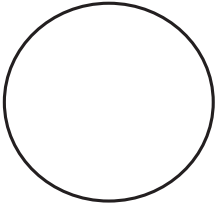
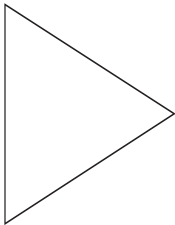
Droem o kopi ol sep ia mo askem ol studen blong kalarem wan pis long ol sep ia. Afta, oli sekolem stret fraksen we i soem.

$\frac{1}{2} \quad \frac{1}{3} \quad \frac{1}{4}$	$\frac{1}{2} \quad \frac{1}{3} \quad \frac{1}{4}$	$\frac{1}{2} \quad \frac{1}{3} \quad \frac{1}{4}$
$\frac{1}{2} \quad \frac{1}{3} \quad \frac{1}{4}$	$\frac{1}{2} \quad \frac{1}{3} \quad \frac{1}{4}$	$\frac{1}{2} \quad \frac{1}{3} \quad \frac{1}{4}$

Aktiviti 12: Serem sep mo kalarem pat

Droem o kopi ol sep ia mo askem ol studen blong yusum laen blong katem wanwan sep mo kalarem folem fraksen we i stap.

 <p>1. Katem long 4 pis. Kalarem olsem $\frac{1}{4}$</p>	 <p>2. Katem long 3 pis. Kalarem olsem $\frac{1}{3}$</p>	 <p>3. Katem long 2 pis. Kalarem olsem $\frac{1}{2}$</p>
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 <p>4. Katem long 3 pis. Kalarem olsem $\frac{1}{3}$</p>	=  <p>5. Katem long 4 pis. Kalarem olsem $\frac{1}{4}$</p>	 <p>6. Katem long 2 pis. Kalarem olsem $\frac{1}{2}$</p>
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Aktiviti 13: Ridim kwata

Wok wetem ol studen blong ridim $\frac{1}{4}$ yusum ol klok fes (luk **Apendiks 8**). Serem skrin long 4 ikwel pis (4 x 15 min). Lukluk long Tem 3, Wik 4, Aktiviti 13.

123
456
789

TEM 3

Oli Kwesten Blong Asesmen

Oli studen oli save:

- ◆ toktok ia “dabol”?
- ◆ narafala saed blong dabol (haf)?
- ◆ dabol blong wan hip blong objek?
- ◆ haf blong wan hip blong objek?
- ◆ tingting blong ikwel long sering blong hip blong objek?
- ◆ tingting blong ikwel long sering blong wan yunit olsem wan sep o wan frut ____?
- ◆ serem wan yunit long 2 pis, 3 pis, 4 pis we i ikwel?
- ◆ talem hamas pis oli kalarem aot long total blong ol pis?
- ◆ raetem fraksen folem droing we i soem namba blong pis we i kala?
- ◆ luksave wan fraksen mo mekem droem long wan sep?

Opotuniti blong Asesmen

Askem ol studen blong mekem wan stori abaot sering blong wan frut, olsem oli katem long 4 pis mo givimaot 3 pis long ol fren.

Oli droem situesen ia mo raetem fraksen we i eksplenem sering we hem i mekem.

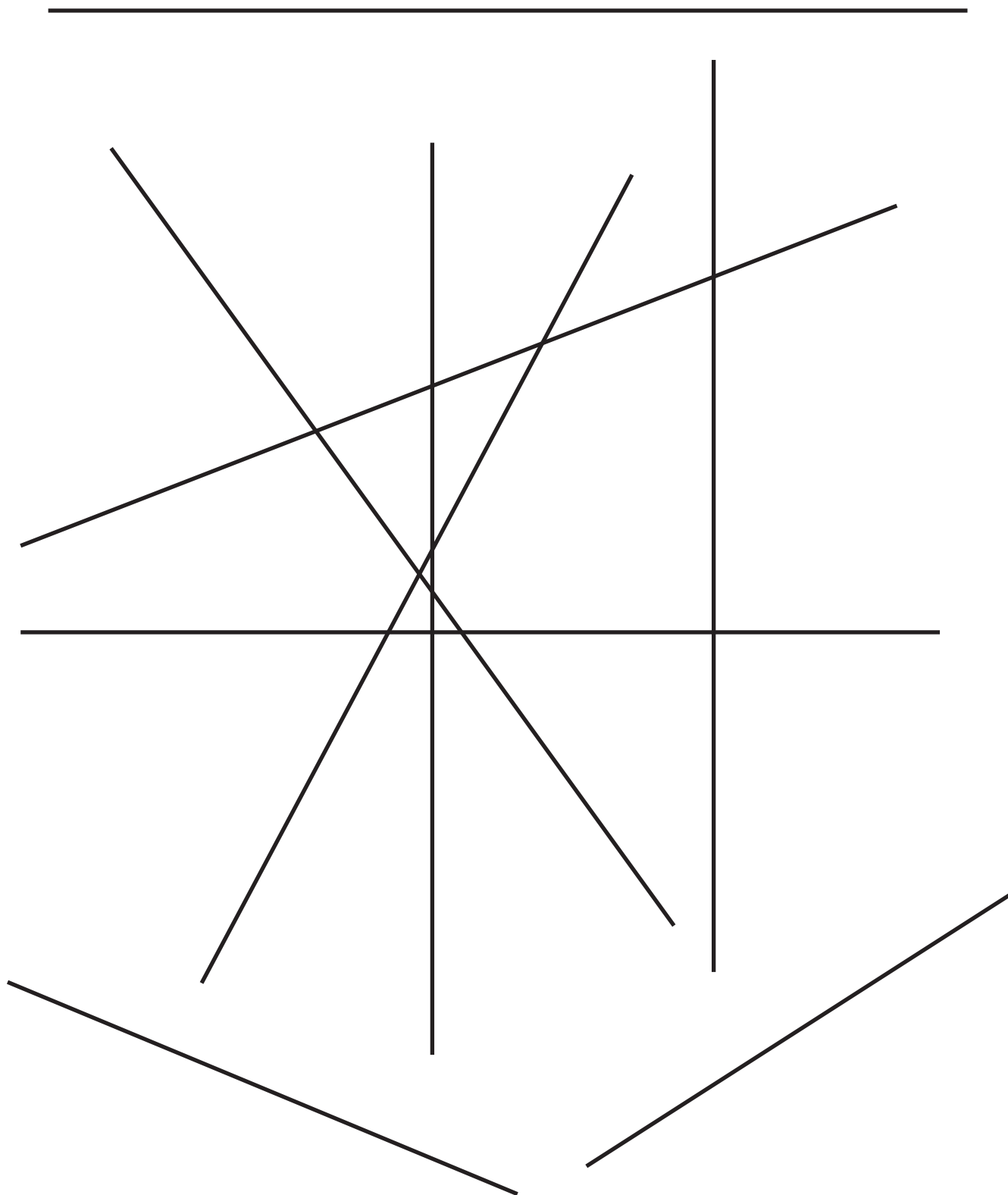
Oi Apendiks



$$\bullet \triangle \blacksquare \square + 123456 - \blacksquare \triangle \bullet = \bullet \triangle \blacksquare - 123456 + \square \blacksquare \triangle \bullet$$

APENDIKS 1:

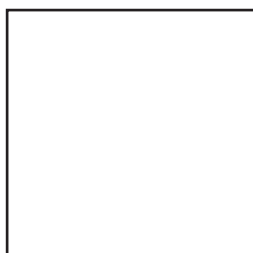
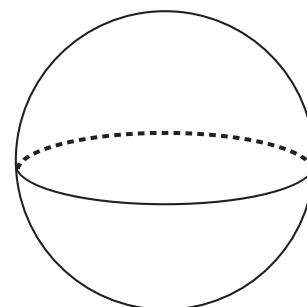
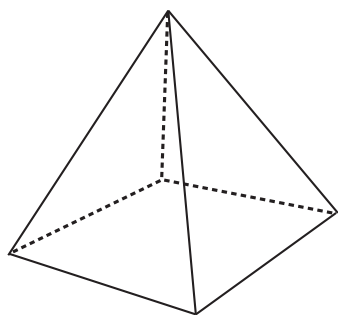
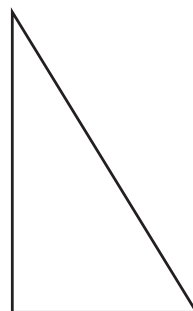
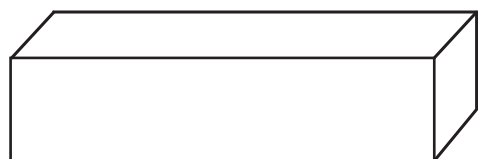
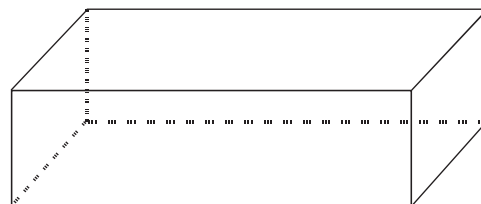
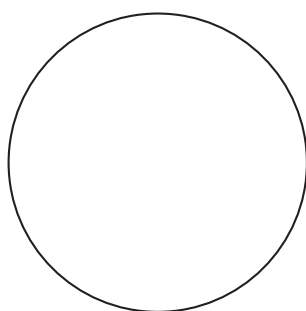
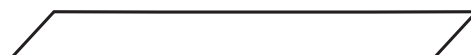
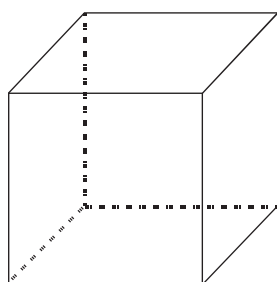
Ol Laen



$$\bullet \triangle \blacksquare \square + 123456 - \blacksquare \triangle \bullet = \bullet \triangle \blacksquare - 123456 + \square \blacksquare \triangle \bullet$$

APENDIKS 2:

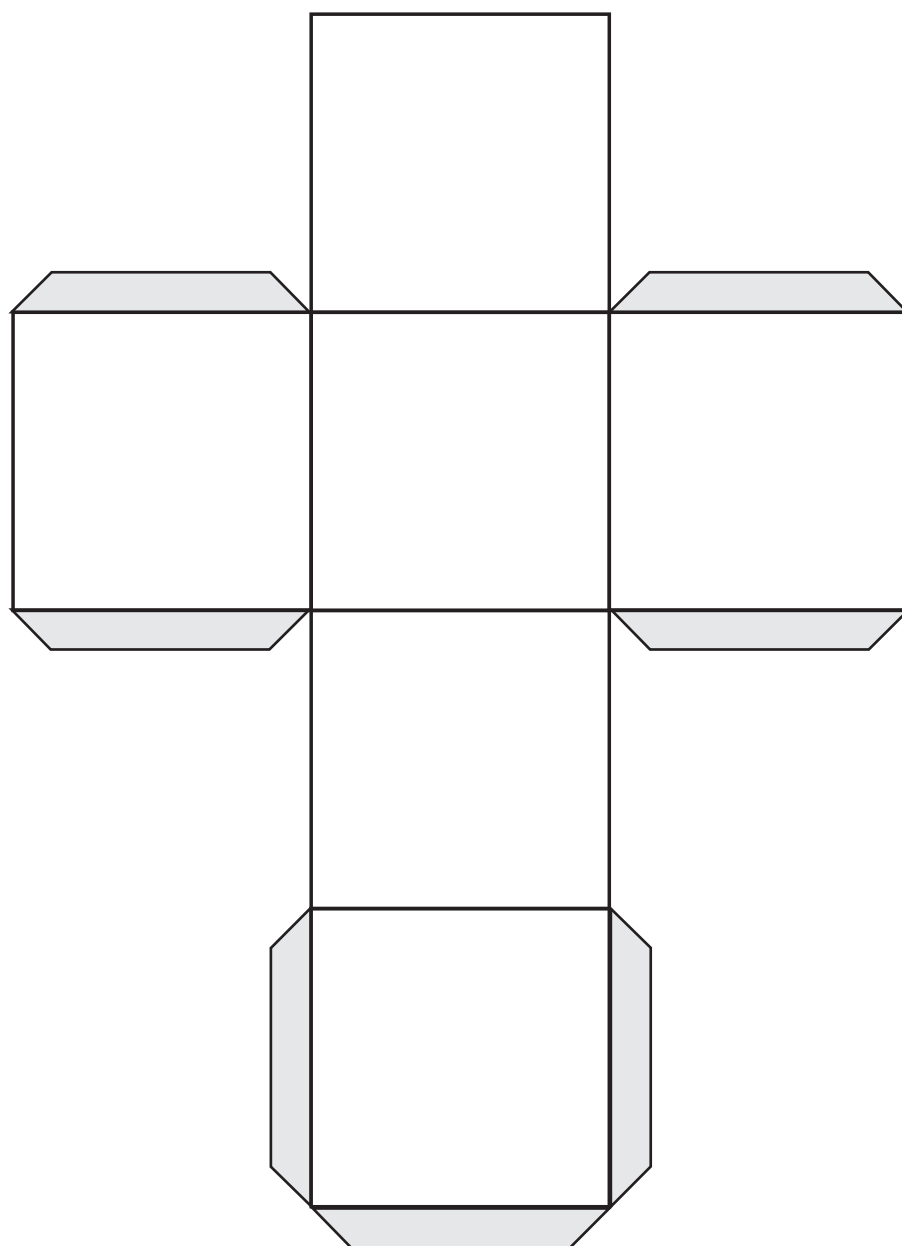
Ol 2D mo 3D sep



$$\bullet \triangle \blacksquare \square + 123456 - \blacksquare \triangle \bullet = \bullet \triangle \blacksquare - 123456 + \square \blacksquare \triangle \bullet$$

APENDIKS 3: Paten blong mekem skwea

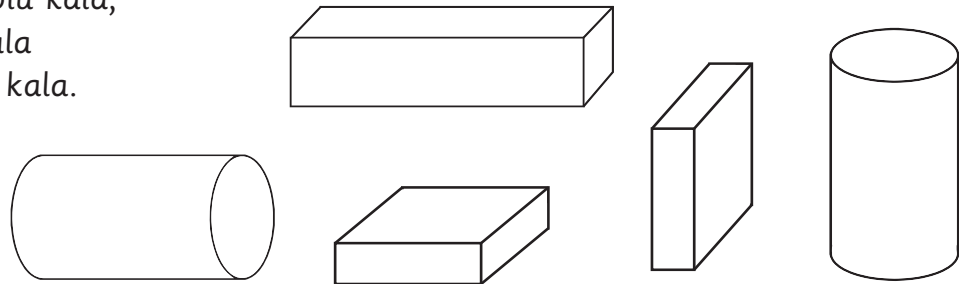
Foldem ol skwea ia folem laen.
Klosem bokis mo putum glu long ol smolsmol saed we i dak kala.



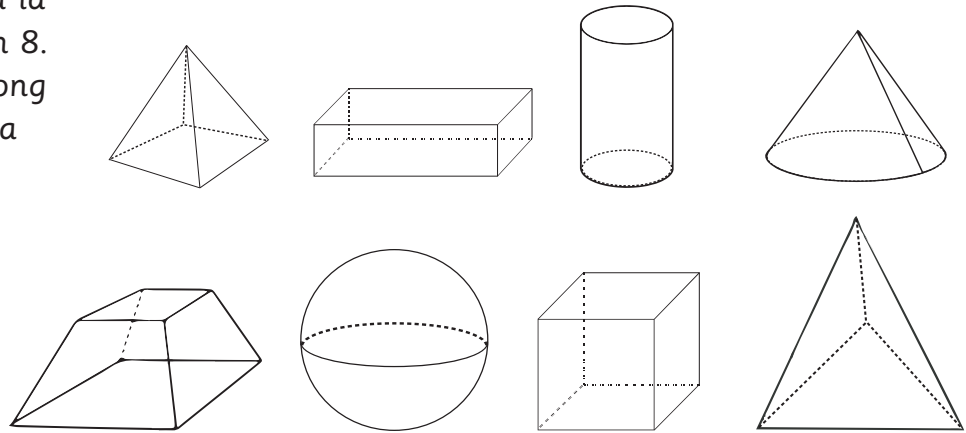
$$\bullet \triangle \blacksquare \square + 123456 - \blacksquare \triangle \bullet = \bullet \triangle \blacksquare - 123456 + \square \blacksquare \triangle \bullet$$

APENDIKS 4: Woksit blong ol 3D sep

Kalarem ol fes long blu kala,
ol saed long orenj kala
mo ol kona long red kala.



Nambarem wanwan solid ia
stat long namba 1 kasem 8.
Afta putum long saed blong
solid ia hamas saed, kona
mo fes solid ia i gat.



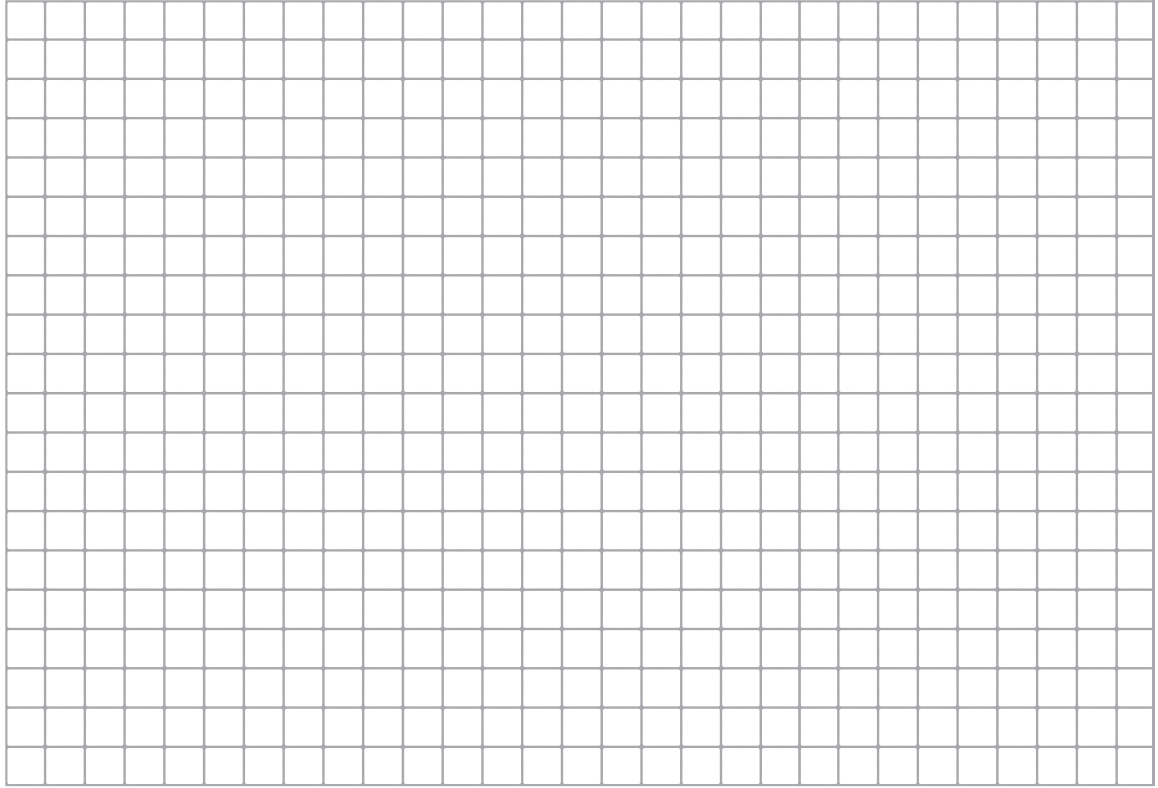
Afta, fulumap tebol wetem ol ansa blong yu:

	Solid	Saed	Fes	Kona
1				
2				
3				
4				
5				
6				
7				
8				

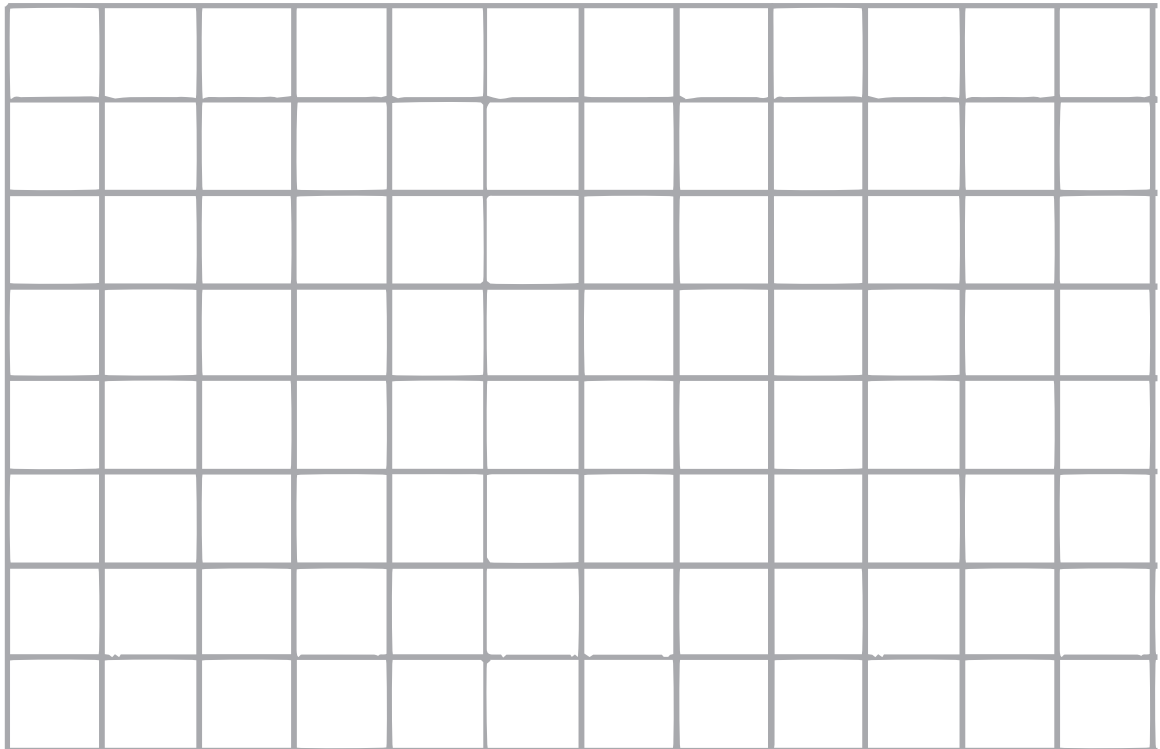
$$\bullet \triangle \blacksquare \square + 123456 - \blacksquare \triangle \bullet = \bullet \triangle \blacksquare - 123456 + \square \blacksquare \triangle \bullet$$

APENDIKS 5:

Grid 1

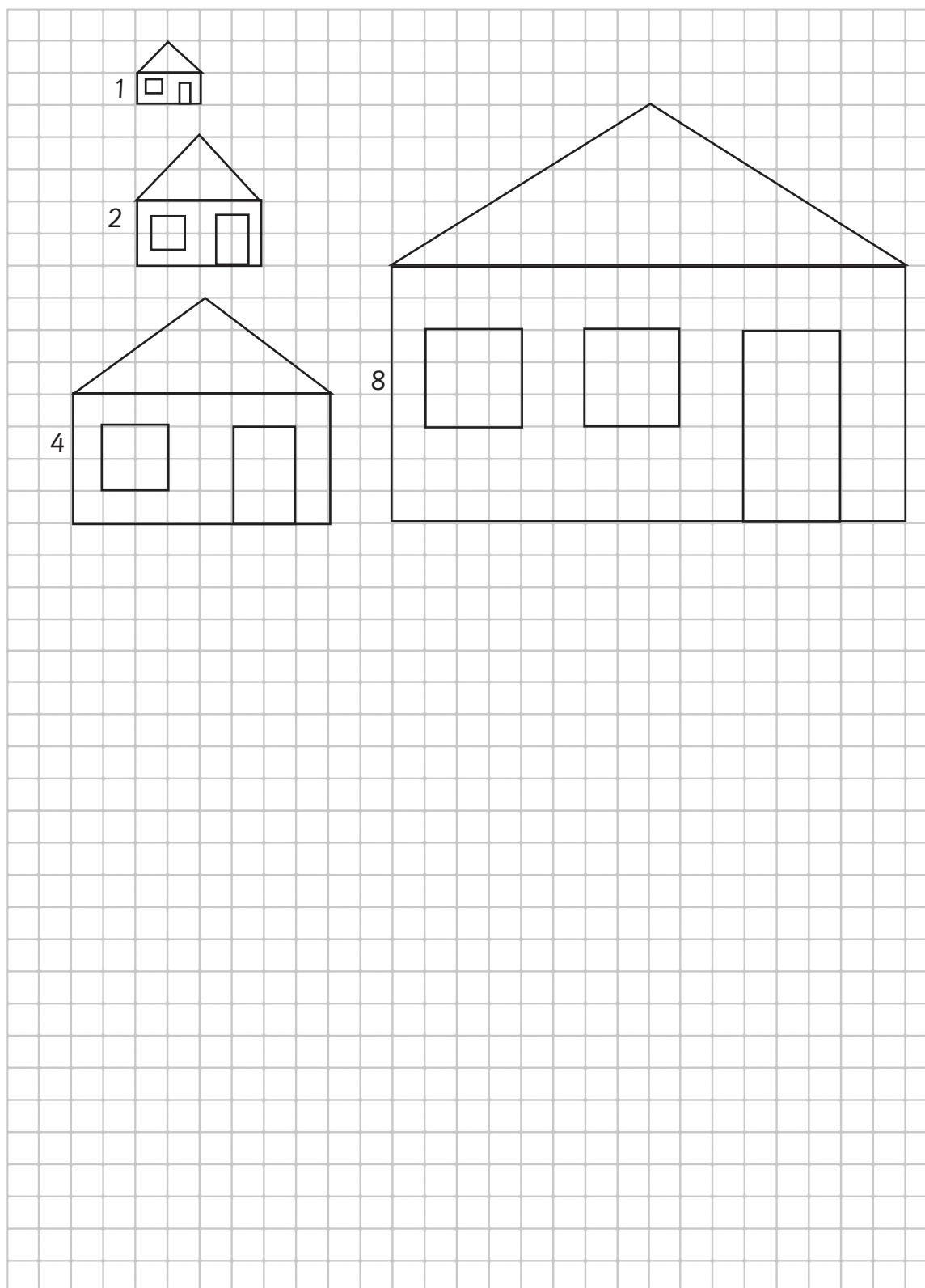


Grid 2



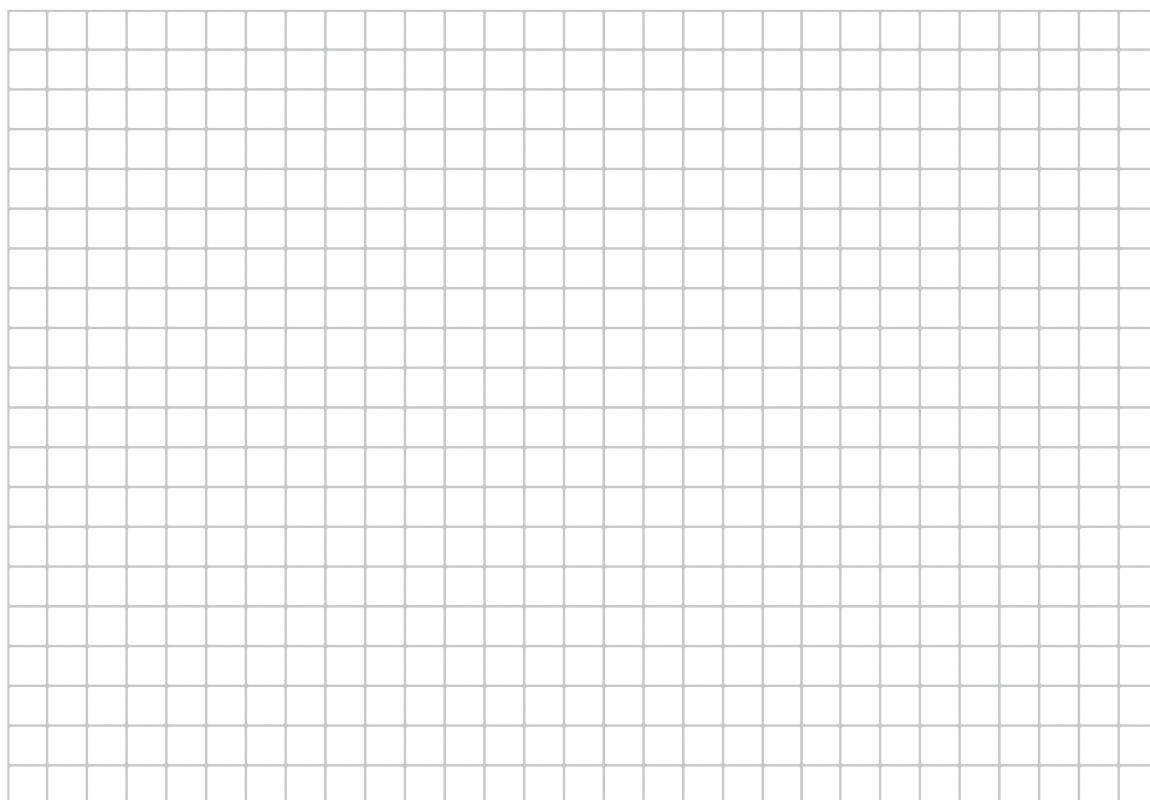
$$\bullet \triangle \blacksquare \square + 123456 - \blacksquare \triangle \bullet = \bullet \triangle \blacksquare - 123456 + \square \blacksquare \triangle \bullet$$

APENDIKS 6:



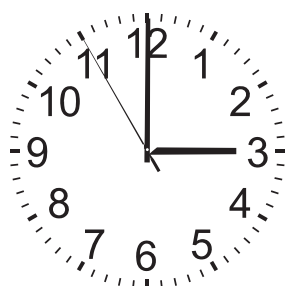
$$\bullet \triangle \blacksquare \square + 123456 - \blacksquare \triangle \bullet = \bullet \triangle \blacksquare - 123456 + \square \blacksquare \triangle \bullet$$

APENDIKS 7:

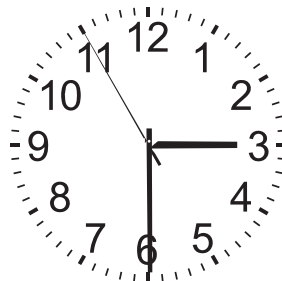


$$\bullet \triangle \blacksquare \square + 123456 - \blacksquare \triangle \bullet = \bullet \triangle \blacksquare - 123456 + \square \blacksquare \triangle \bullet$$

APENDIKS 8:



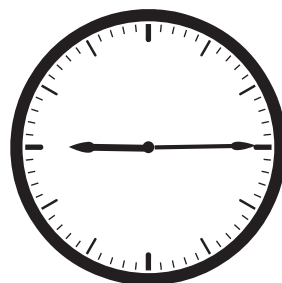
.....



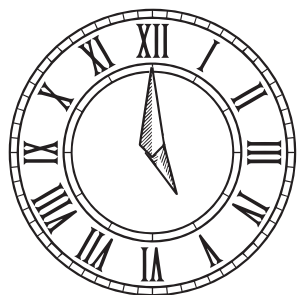
.....



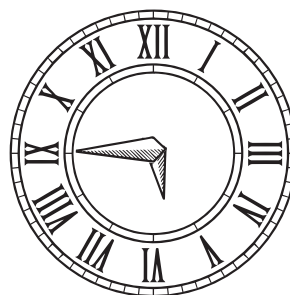
.....



.....



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.....

$$\bullet \triangle \blacksquare \square + 123456 - \blacksquare \triangle \bullet = \bullet \triangle \blacksquare - 123456 + \square \blacksquare \triangle \bullet$$

APENDIKS 9:

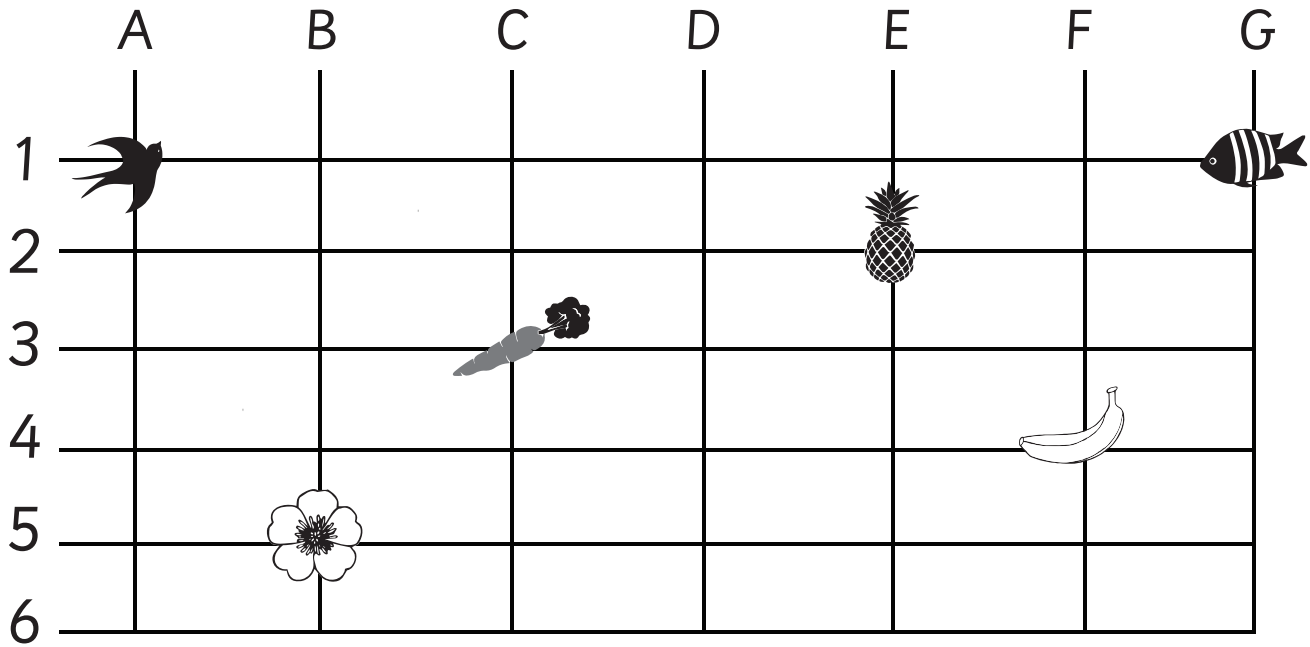


APENDIKS 10:

	A	B	C	D	E	F
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

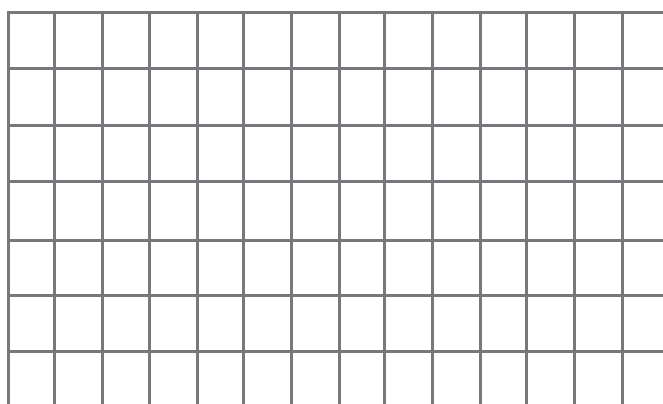
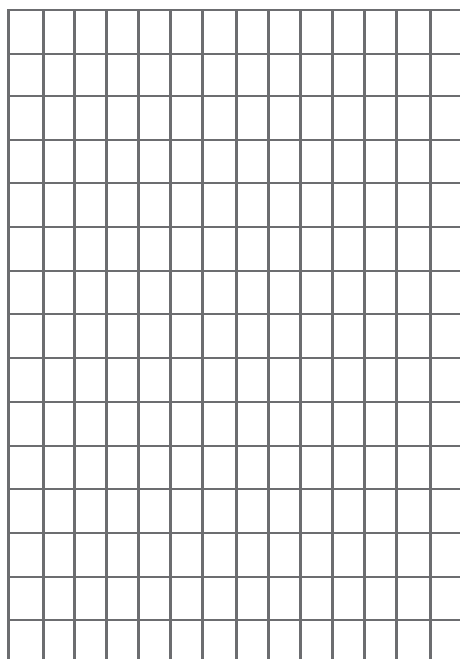
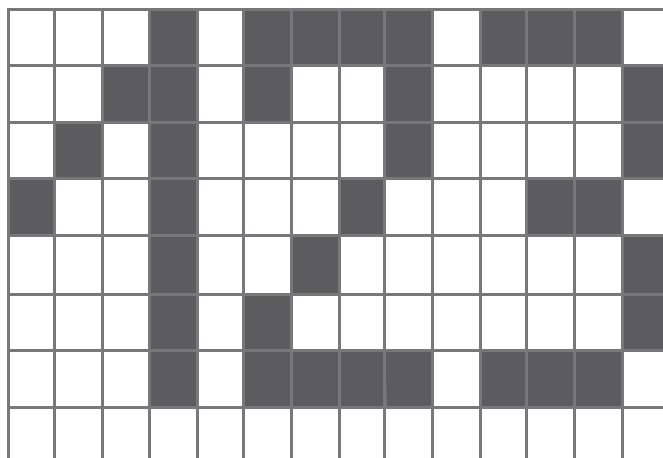
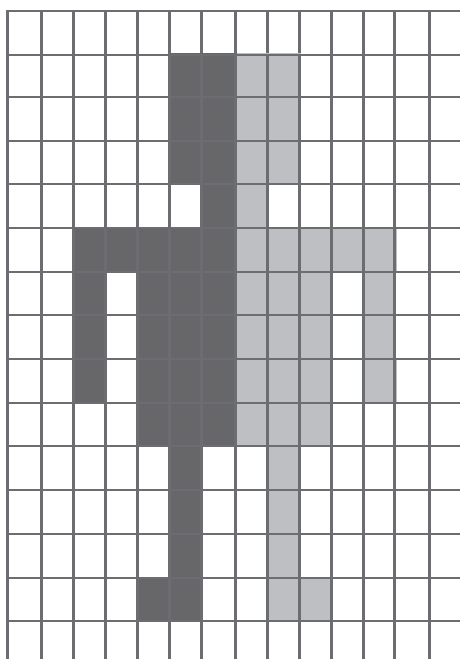
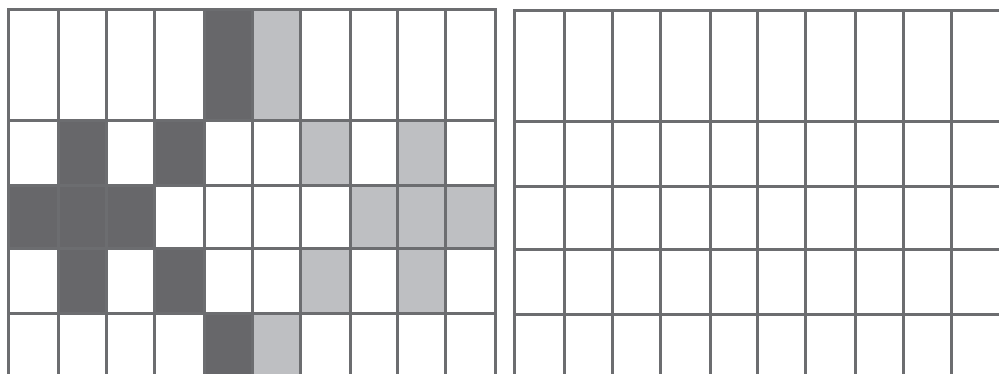
$$\bullet \triangle \blacksquare \square + 123456 - \blacksquare \triangle \bullet = \bullet \triangle \blacksquare - 123456 + \square \blacksquare \triangle \bullet$$

APENDIKS 11:



$$\bullet \triangle \blacksquare \square + 123456 - \blacksquare \triangle \bullet = \bullet \triangle \blacksquare - 123456 + \square \blacksquare \triangle \bullet$$

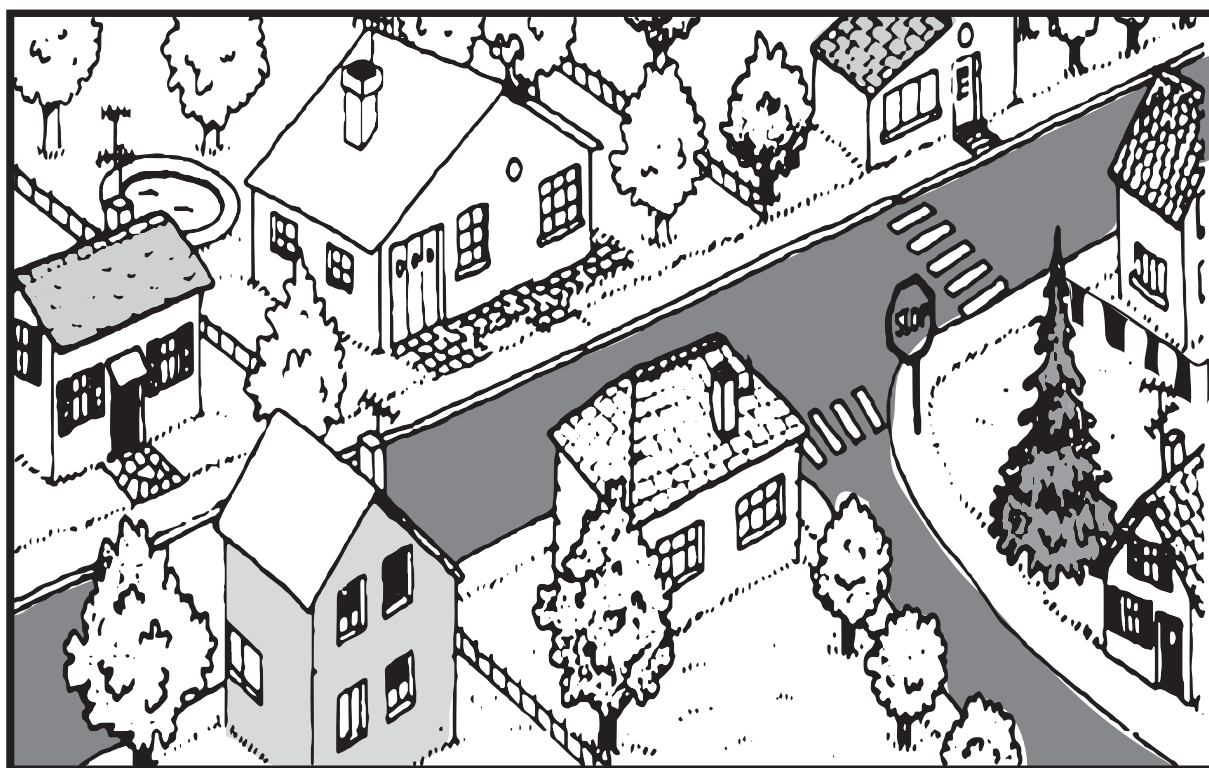
APENDIKS 12:



● △ ■ □ + 123456 - ■ △ ● = ● △ ■ - 123456 + □ ■ △ ●

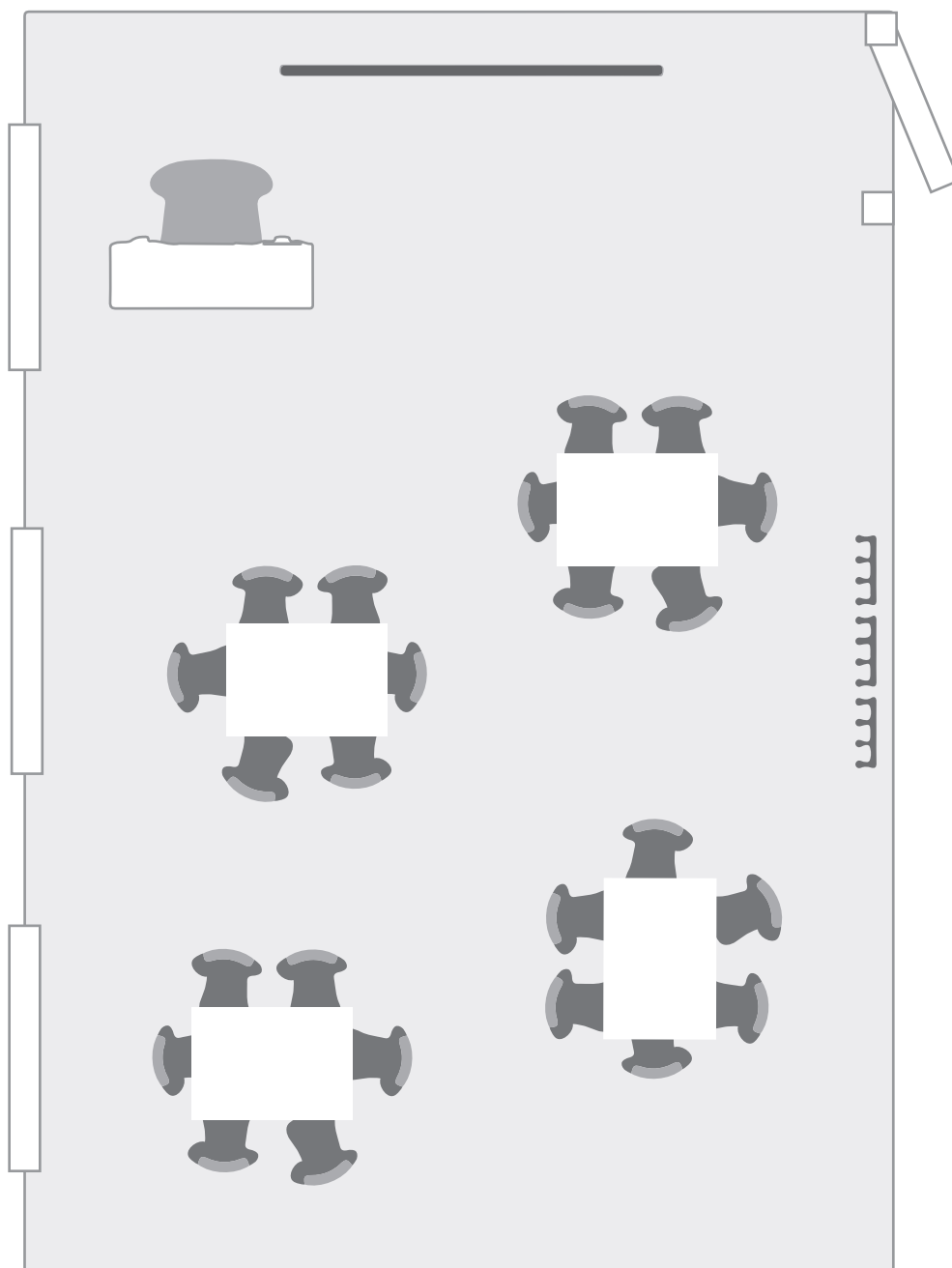
APENDIKS 13:

Plan blong eria









● △ ■ □ + 123456 - ■ △ ● = ● △ ■ - 123456 + □ ■ △ ●







APENDIKS 14: Plan blong klasrum



APENDIKS 15:

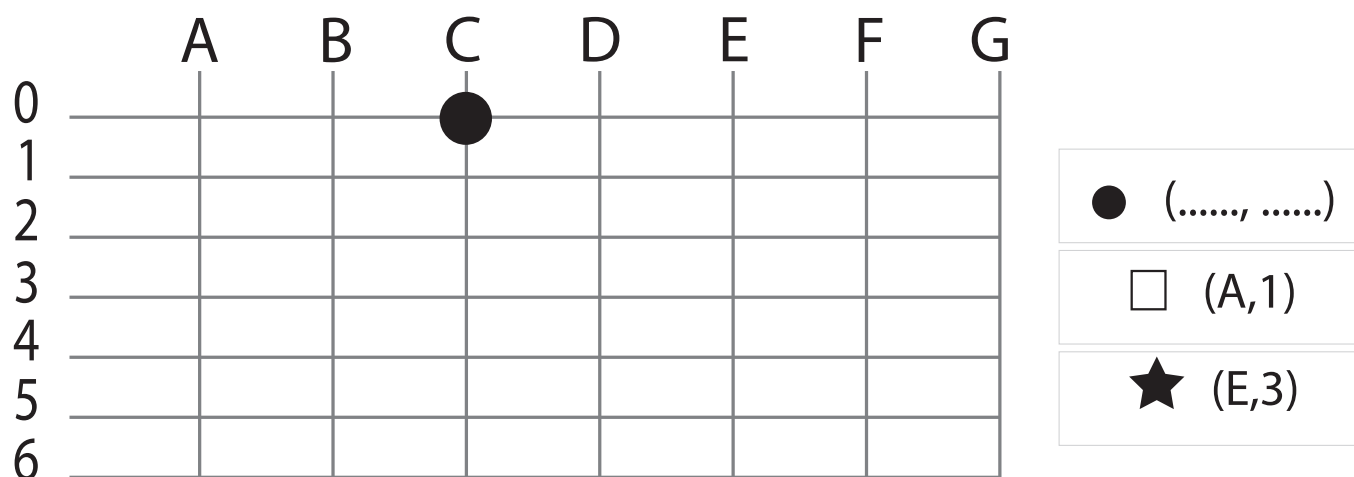
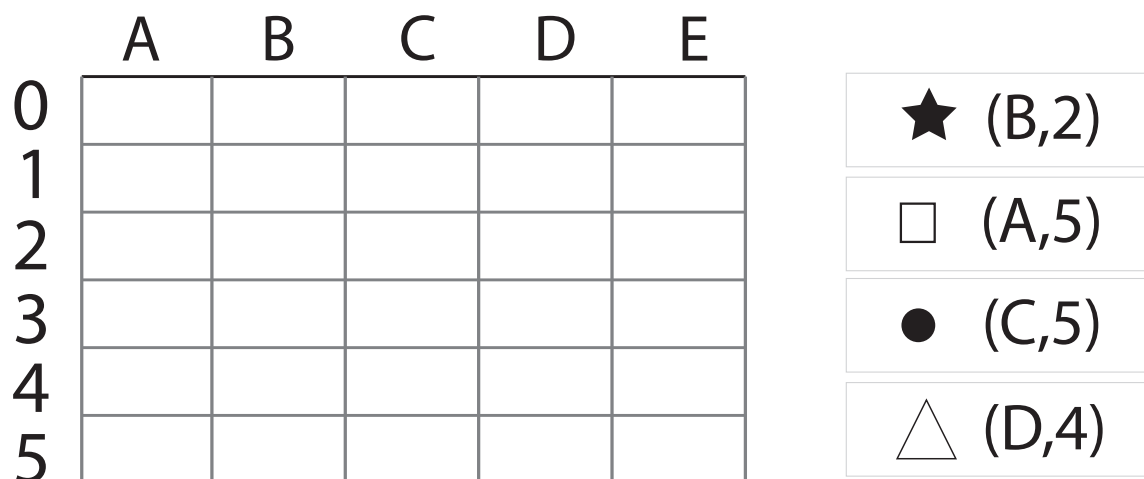
Posisen blong ol studen

	A	B	C	D	E
1					
2					
3					
4					
5					

	(B,5)
	(..., ...)
	(..., ...)
	(..., ...)
	(..., ...)
	(..., ...)

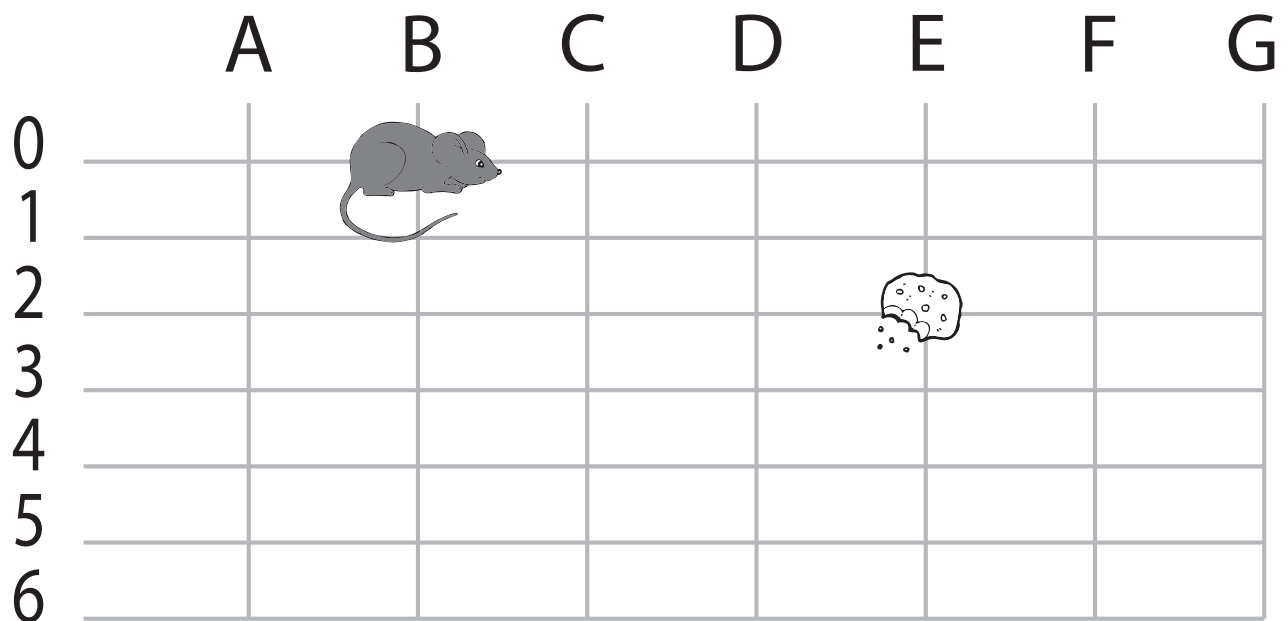
$$\bullet \triangle \blacksquare \square + 123456 - \blacksquare \triangle \bullet = \bullet \triangle \blacksquare - 123456 + \square \blacksquare \triangle \bullet$$

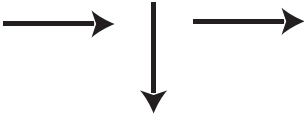
APENDIKS 16:



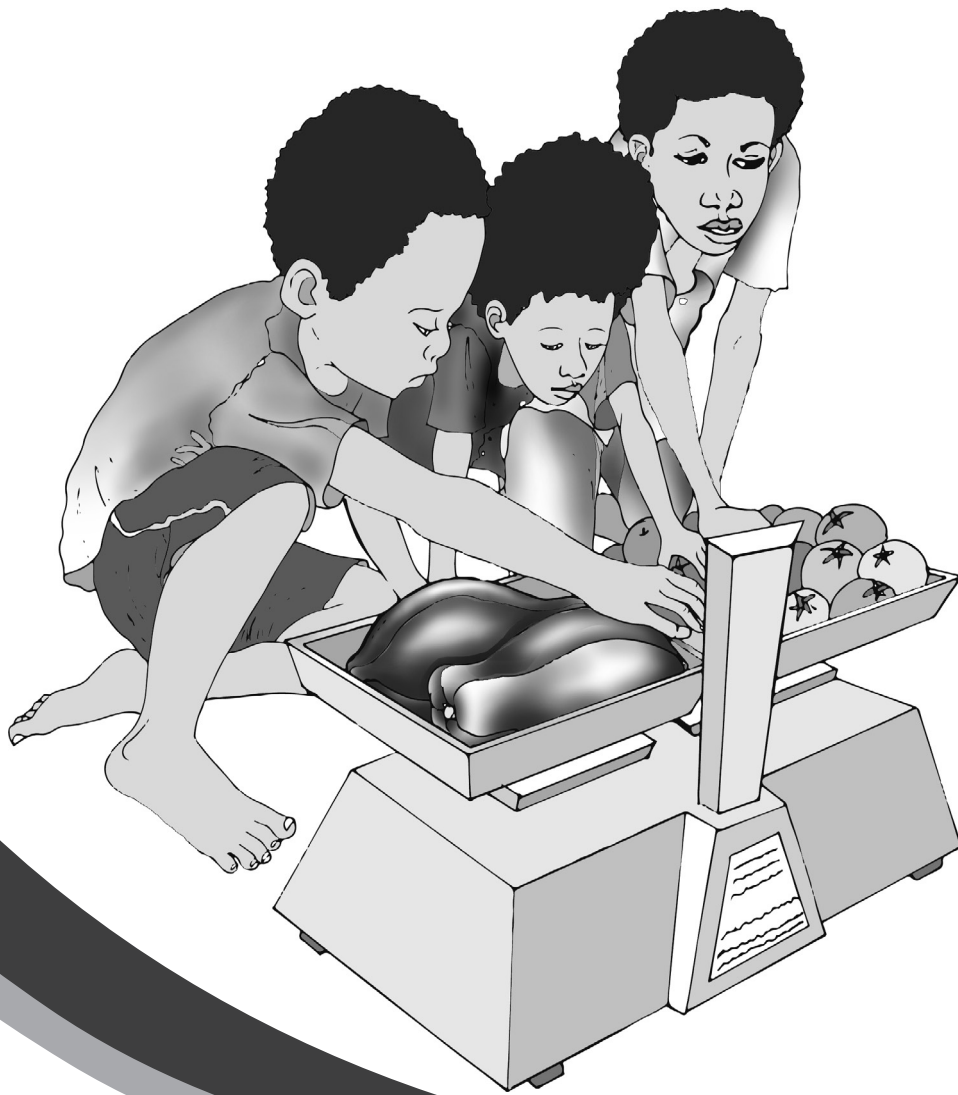
$$\bullet \triangle \blacksquare \square + 123456 - \blacksquare \triangle \bullet = \bullet \triangle \blacksquare - 123456 + \square \blacksquare \triangle \bullet$$

APENDIKS 17:



Rat	I aot long wanem kroslaen?	I folem rod blong go long kakae	I kasem ples blong kakae
	(__, __)		(E,3)

Oi Glosari



Glosari

Bislama	Inglis	Franis	Mining
abakas	abacus	compteur	Materiel blong helpem studen i lanem ples mo valiu blong namba
ba	bar	barre	Grup blong 10 Kiub
bit	rhythm	rythme	Kilim han folem wan bit, wan ritem
daeagonol	diagonal	diagonale	Laen we i leidaon i bitwin vetikol mo horaesentol
daereksen	direction	direction	Ples we wan i wantem go o ples we wan samting i stap muv i go from
dijital klok	dijital clock	cadran numérique	Klok we i gat ol namba nomo mo i nogat han
hae	height	hauteur	Tolfala blong wan samting
hed blong koen	head of a koen	pile (ou face d'une pièce)	Saed blong koen we i gat god of am
horisontol	horizontal	horizontale	Laen we i leidaon
ikwel	equal	égalité	I semak long hem
karakteristik blong wan sep	characteristics of a shape	les caractéristiques d'une forme	Ol samting we yumi luk save wan sep long hem
kari	carry	la retenue	Yu ademap ol Yunit mo kasem 10 yu pasem 1 Ten; tekem namba i go antap long nekis Yunit, Ten o Handred
kodinet	coordinates in a grid (A, 2)	coordonnées sur quadrillage (a,2 ...)	Nem blong ples horisontol laen mo vetikel laen i krosem tufala
kra	rapid response activity	plm (procédé la martiniere)	Kwik Rispons Aktiviti
kros laen	cross line, intersection	croisement de deux lignes, intersection	2 laen wan i horisontol mo wan i vetikel we tufala i mitim mo i mekem wan kros
manipuletem	manipulate	manipuler	Pat blong lening we studen i tajem risos olsem kiub, sep, sid blong givhan long hem i andastanem wan konsep
nakamal blong skol	school hall	le préau	Ples blong ol studen oli mit bifo klas o taem i ren o long asembli
not	a money note	un billet (de monnaie)	Pepa mani
numeresen	numeration	numération	Lanem ol namba (stadi abaot ol namba)
paralel	parallel	parallèle	Ol lean we oli go long semak daereksen i gat ikwel distens bitwin olgeta mo oli neva mit
pependikula	perpendicular	perpendiculaire	Tu laen we taem yu extendem oli save mit mo makem wan raet angel (90 digri)

Bislama	Inglis	Franis	Mining
obsevem	observe	observer	Lukluk gud wetem tingting blong faenem wan samting
od namba	od number	nombre impair	Ol namba we taem yu divaedem wetem namba 2 bae oli no save kitkit
ovol	oval (shape)	ovale (forme)	Sep blong balong blong ragbi
sep we i plen	a plain shape (2D)	une figure plane à 2 dimensions	Sep we i flat i no gat volium
seremaot	to share	partager, distribuer	Givimaot samting i go long defren man o ples
setskwea	set square	équerre	Tul blong mesarem ol anggel
solid sep	3 dimension shape	un solide, une figure en 3 dimension	Wan sep we i gat longfala, weit mo hae
stediometa	stadiometer	le stadiomètre	Tul we dokta i yusum blong mesarem hae blong man o woman
tael	tile	plaque	Grup blong 100 Kiub
taem aen	timeline	chronologie	Laen we i soem taem we i pas, yia we i pas...
taemtebol	timetable	emploi du temps	Tebol we i gat ol aktiviti wetem ol aktiviti mo taem blong olgeta oli stap long hem
tebol grid	grid	un tableau quadrillé	Tebol wetem ol smosmol bokis
tepmeta	tapemeasure	un mètre- ruban	Wan instramen we i semak long ol rula be oli wokem long tep (i slakslak mo i save go raon long ol ting)
tel blong koen	tail of a coin	face d'une pièce	Baksaed blong koen
tul	tool	outil	Ol samting o materiel blong mekem wan wok
vetikel laen	vertical line	ligne verticale	Laen we i stanap stret
volium	volume	volume	Hamas nao wan solid i save holem (dipen plante long longfala, waet mo hae blong hem)
yunit	yunits, ones	unités	Wanwan objek i no kasem 10
<	smaller than	plus petit que	I smol moa
>	bigger than	plus grand que	I bigfala moa
=	equal	égale	Ikwel
+	plus	plus	Plas, ademap
-	minus	moins	Maenes, tekemaot
x	times o multiply	fois	Maltiplae

