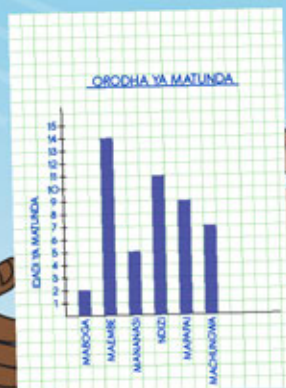


Umuhimu wa Takwimu

grafu



ORODHA YA WANYAMA

TWIGA	11
NGEDERE	15
SUNGURA	8
KORE	4
NDEGE	10
TEMBO	3

Age
Umri
7+



Siku moja Kibena alikuta Mzee Kigo msituni.
Alikuwa amevuna matunda mengi mbalimbali.



Alishawapa wanakijiji matunda mengi alivyoweza.
“Haya yanayobaki yataoza,” alisema, akimwonyesha
chungu ya matunda yaliyobaki.



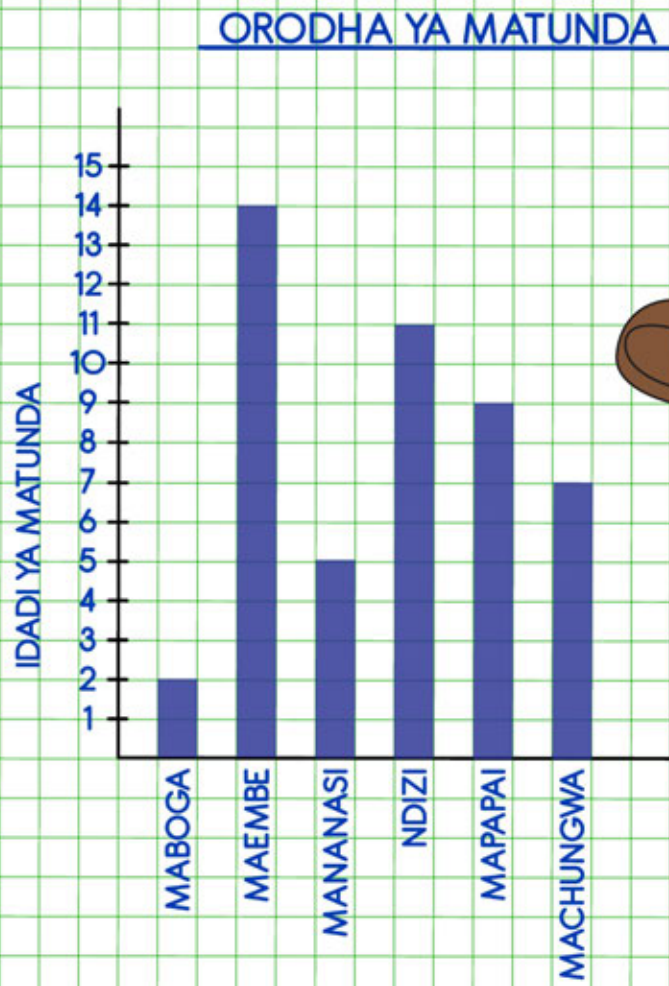
Kibena alimwambia awape wanyama wa msitu.
“Wazo zuri hilo!” Mzee Kigo aliitika.



“Ila nataka nihakikishe kuna matunda ya kutosha kwa wanyama wote ili wasiyapigania,” Mzee Kigo aliitika.



Alishahesabu matunda
na kutengeneza
grafu kuonyesha
kiasi cha kila aina ya
tunda kilichobaki.



Mzee Kigo alimpa Kibena grafu
akamwomba ahesabu wanyama.



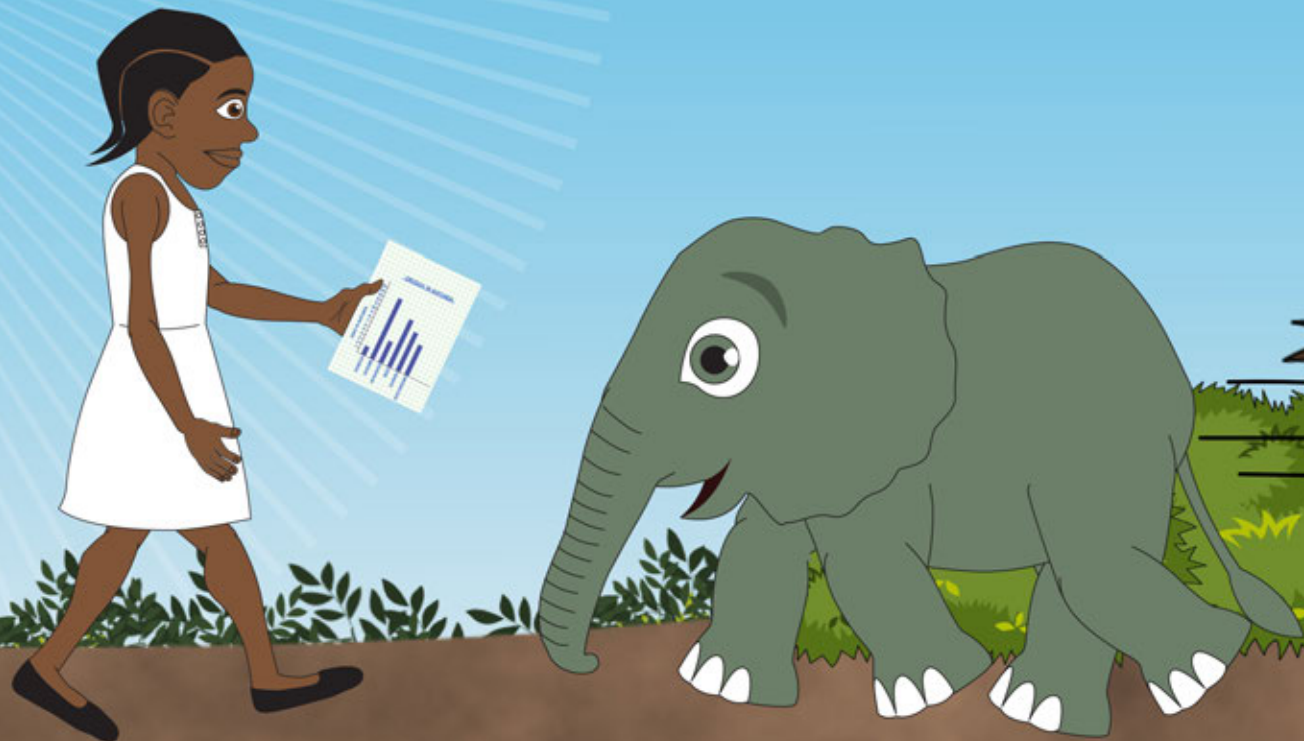
Alimwambia kuwahesabu kwa aina ili aweze kupa
kila aina ya mnyama aina fulani ya tunda.



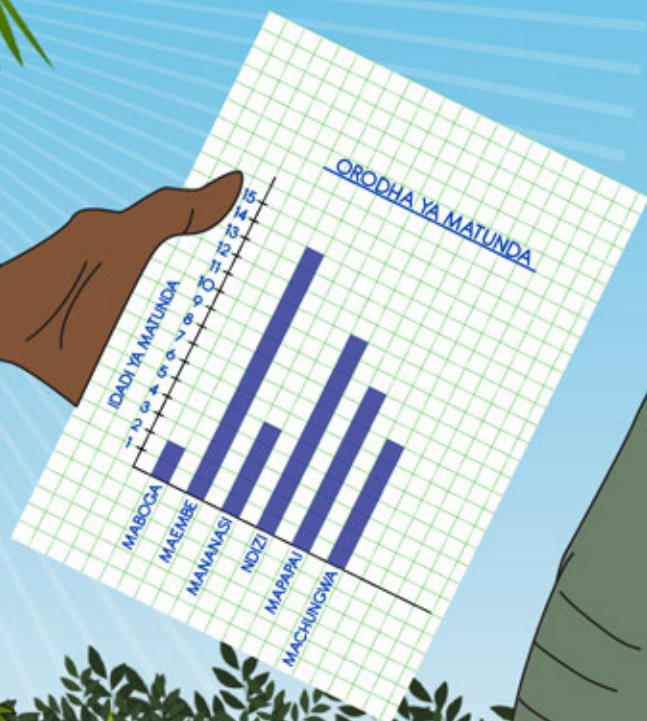
Kibena alifurahi kumsaidia akatoka
na grafu mkononi mwake.



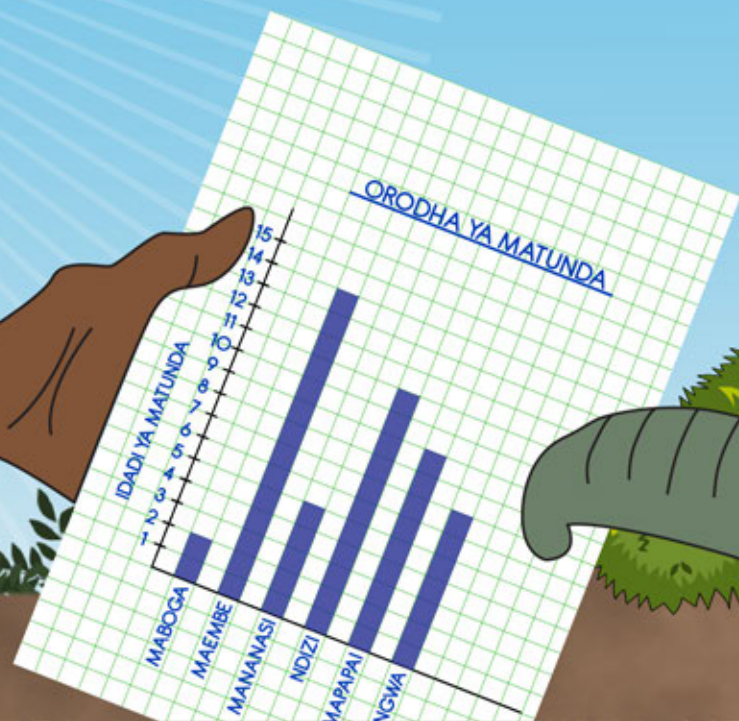
Alimwita Toto Tembo aliyekuja moja
kwa moja kwa hamu ya kumsaidia Kibena.



“Ni nini mkononi mwako?” alimuuliza.



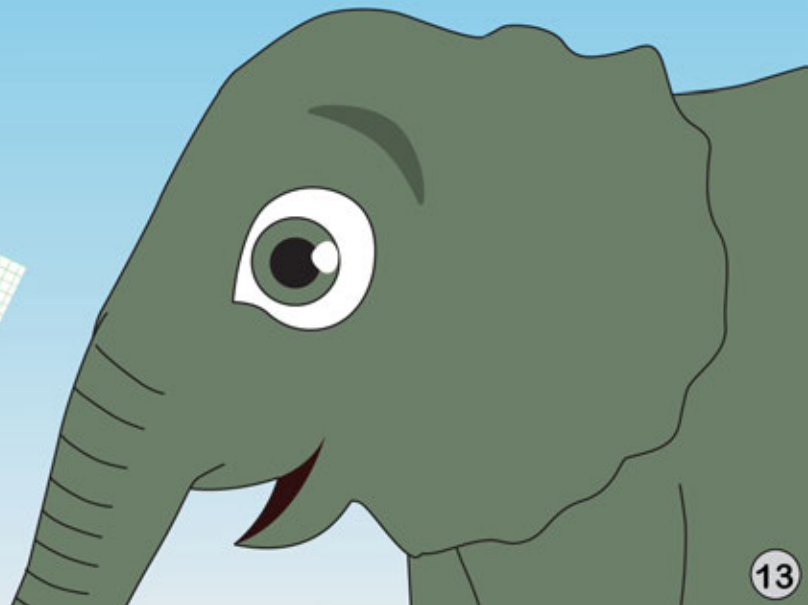
Kibena aliitika, “Ni orodha ya matunda ya Mzee Kigo. Inaonyesha aina za matunda ambayo anataka kuwapa wanyama.”



Toto Tembo hakujua 'orodha' ni nini.
Alidhani ni miwa!



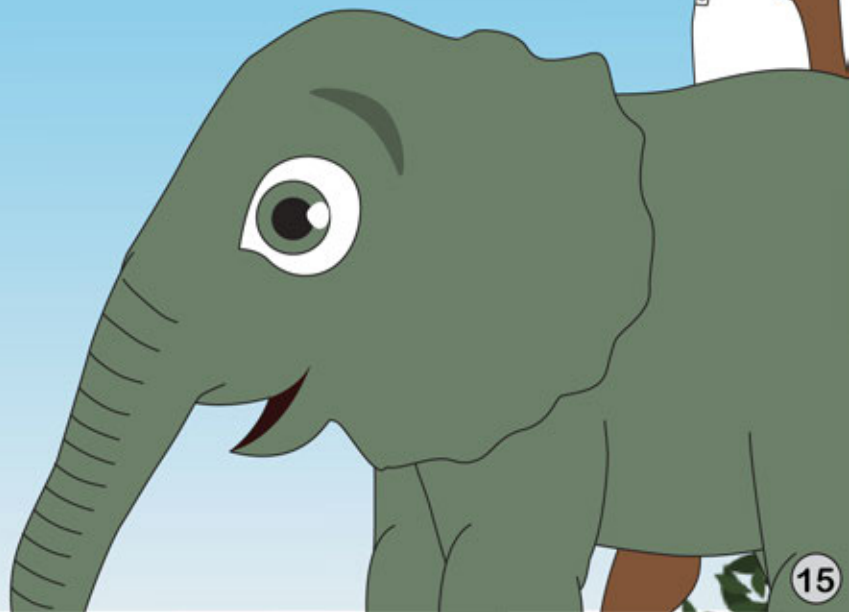
Kibena alicheka akamwambia kuwa
“orodha” siyo matunda lakini
angemwelezea vizuri baadae.



Alimwuliza Toto Tembo kuvuta mkonga
wake ili kuwaita wanyama wengine.
Mara Toto Tembo aliuvuta.



Mama Ndege na ndege wengine wengi walikuja
kwa haraka. Toto Tembo aliwatania kwa kusema,
“Nilikuwa nawaita wanyama tu, sio ndege!”



Mama Ndege alimwambia,
“Ndege ndio wanyama pia!”





Halafu twiga walifika...

...wakafuatwa na ngedere na sungura.



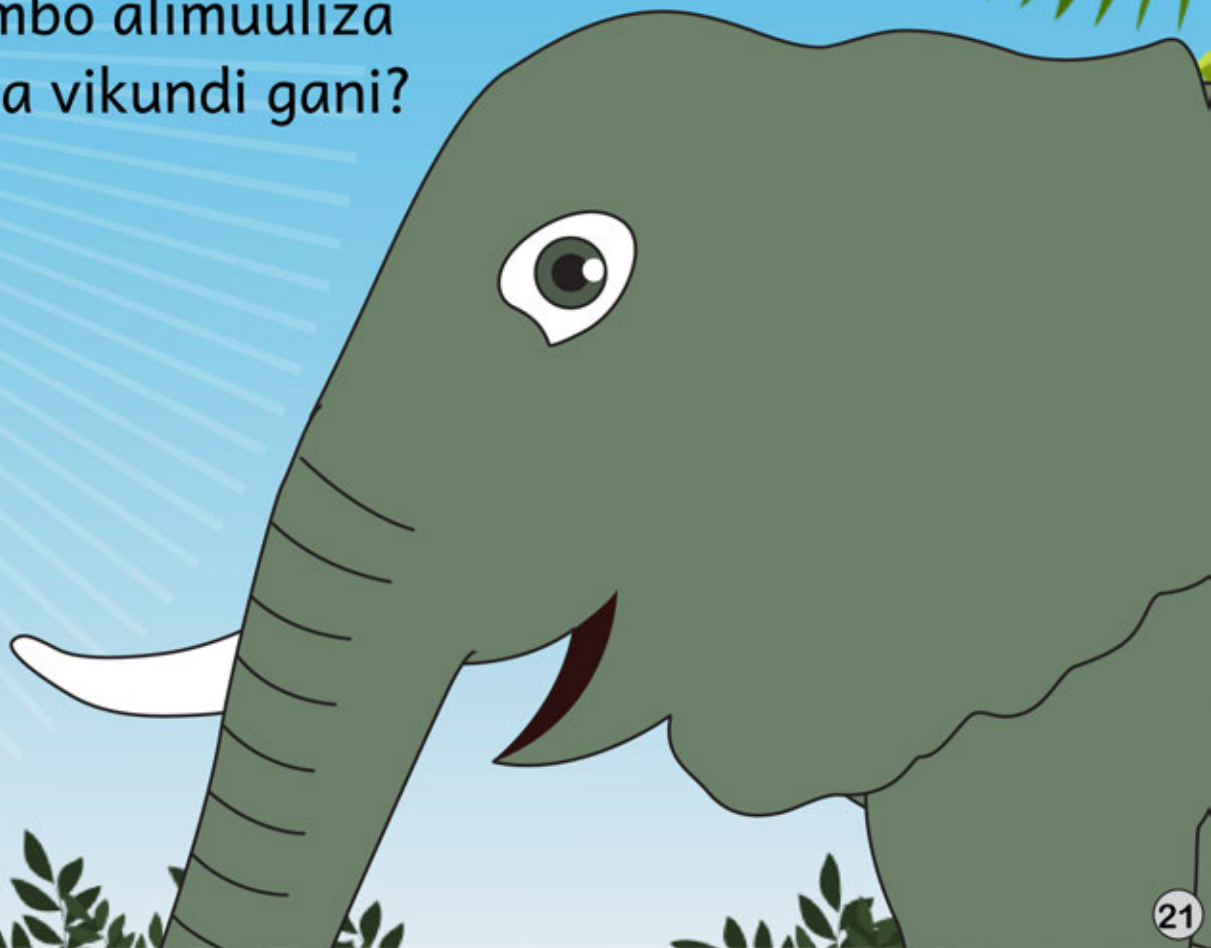
Kibena aliwaambia kwamba Mzee Kigo alitaka kuwapa matunda, lakini kwanza ilibidi ajue idadi ya wanyama walikuwepo.



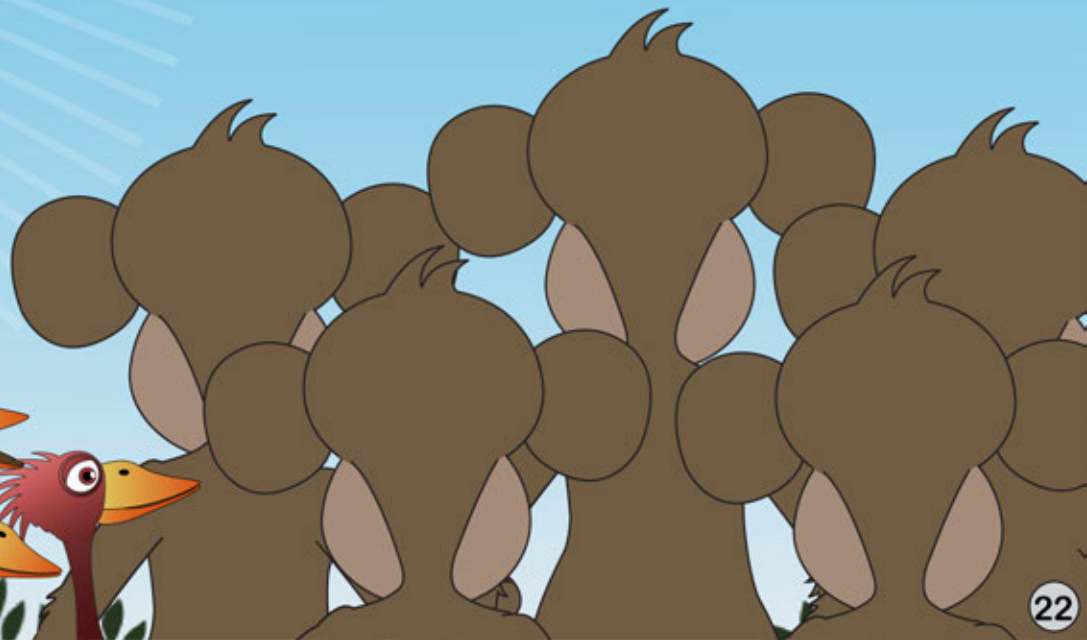
Aliwaambia wajipange kwenye vikundi
na kusimama kwenye mstari ili
awahesabu vizuri.



Senior Tembo alimuuliza
anaongelea vikundi gani?



Kibena akajibu, “Mjipange kwenye
vikundi kutokana na aina yako.
Ngedere wakae pamoja, ndege wakae
pamoja...na endelea hivi.”



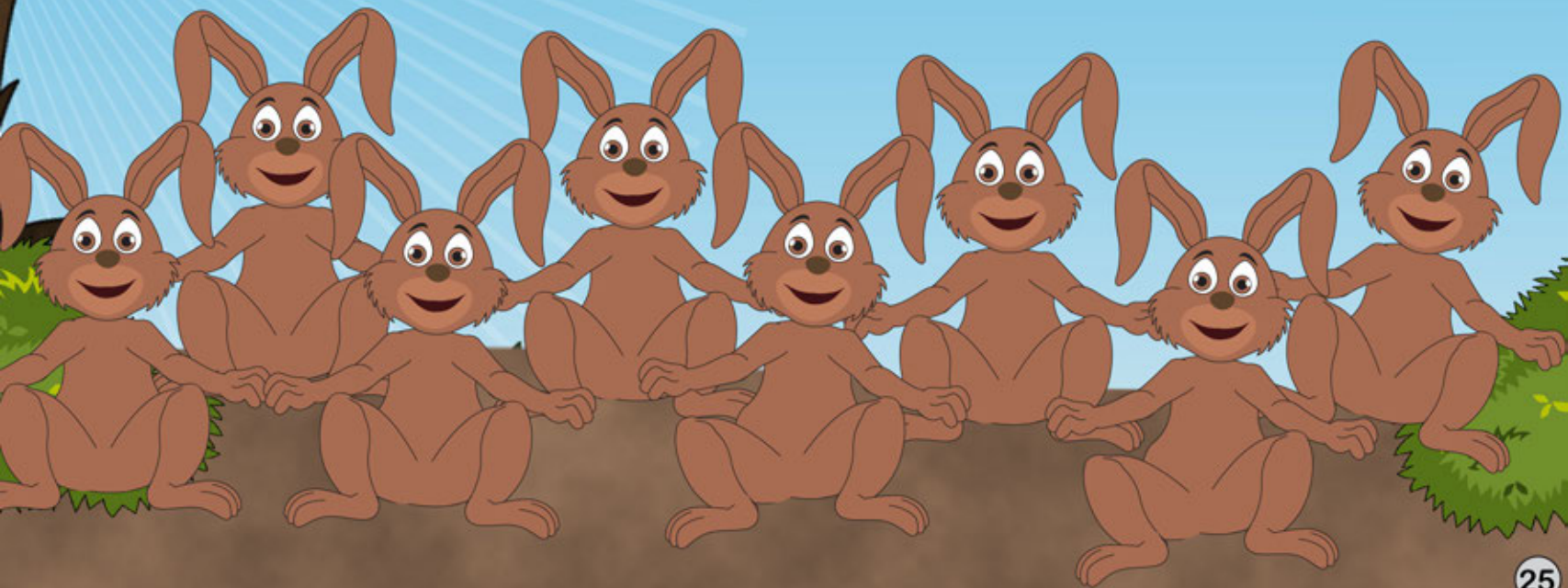
Alihesabu twiga sita,



ngedere kumi,



na sungura nane.



Alichora picha za kila aina
aliyoihesabu kwenye karatasi.

ORODHA YA WANYAMA

TWIGA



NGEDERE



SUNGURA



KOBE





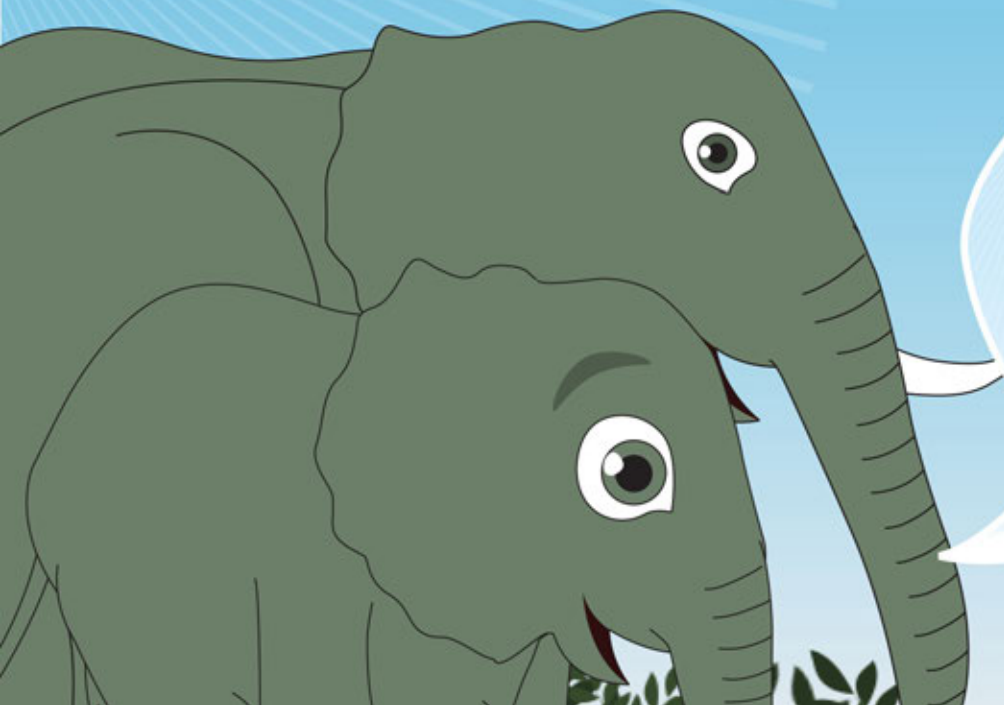
Hatimaye kobe walifika.
Kaka Kobe alimwambia wao walikuwa
wengi lakini kwa ajili ya mbio wao
bado wengi walikuwa hawajafika.



Mama Ndege alisema,
“Sisi ndege ni kumi na mbili.
Tungependa kupewa
maembe, siyo maboga!”



“Sisi tutachukua maboga yote,” Toto Tembo alisema.
“Sisi ni wawili tu, tembo wengine wanaogopa
kusogea watu.”



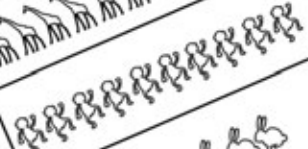
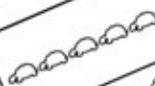
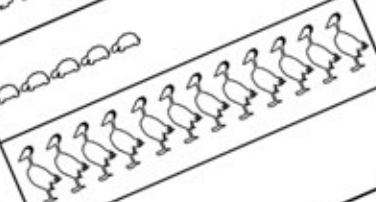
ORODHA YA WANYAMA

TWIGA	
NGEDERE	
SUNGURA	
KOBE	
NDEGE	
TEMBO	

Kibena alimaliza
grafu yake
akawauliza
wote wasome ili
kuhakikisha iko
sahihi.

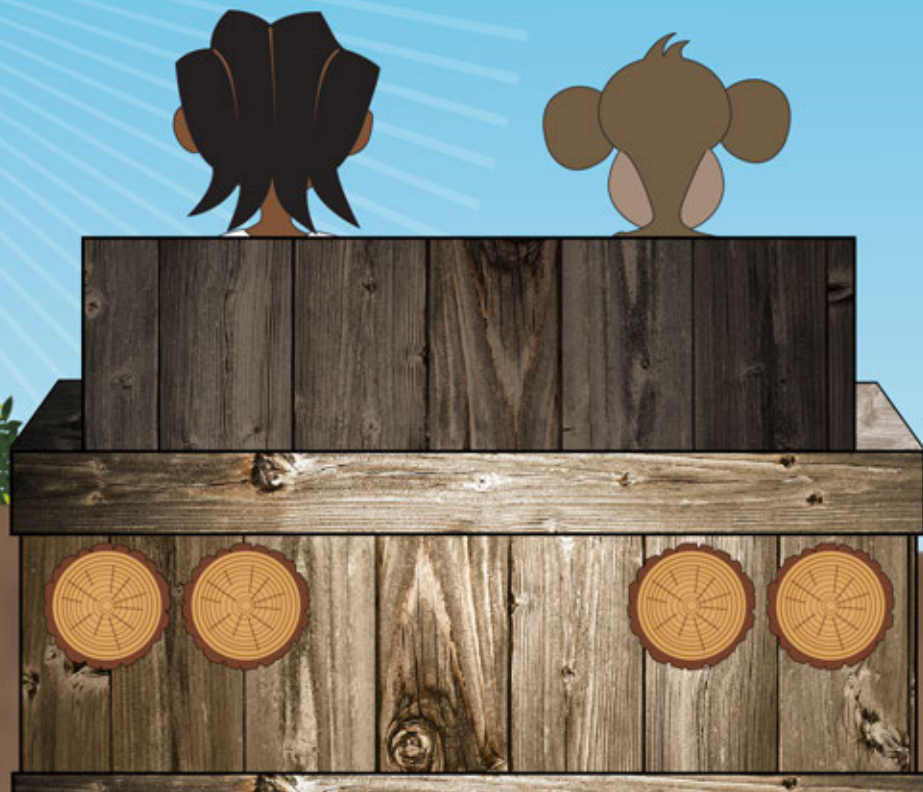
Anko T aliitazama akasema
ilionekana kuwa sahihi.

ORODHA YA WANYAMA

TWIGA	
NGEDERE	
SUNGURA	
KOBE	
NDEGE	
TEMBO	



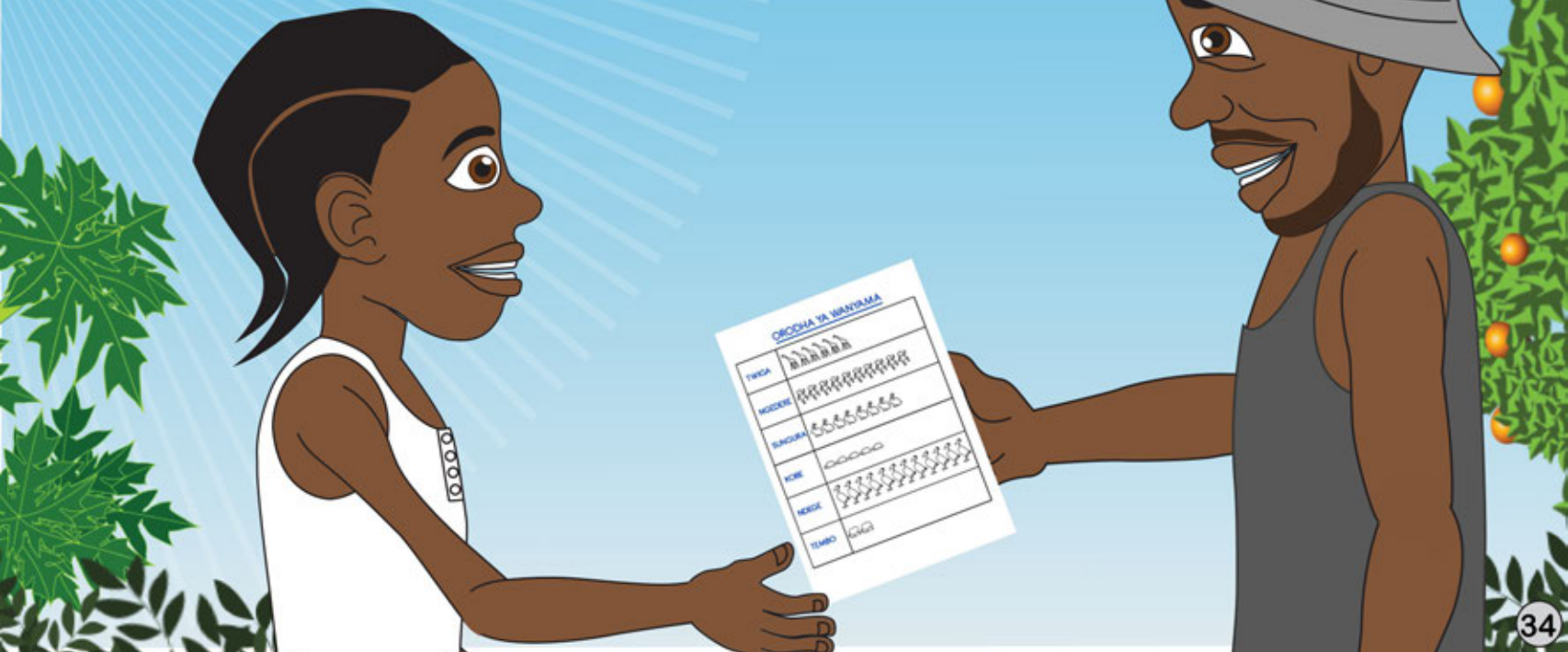
Kibena akapata lifti kwenye gari la
Ngedere kuenda kuchukua matunda.



Kibena alipofika kwa Mzee Kigo,
rafiki zake walikuwa wanamsubiria
ili wasaidie kuweka matunda
kwenye gari.

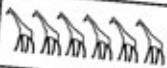
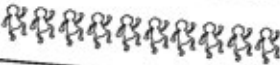
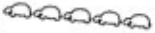


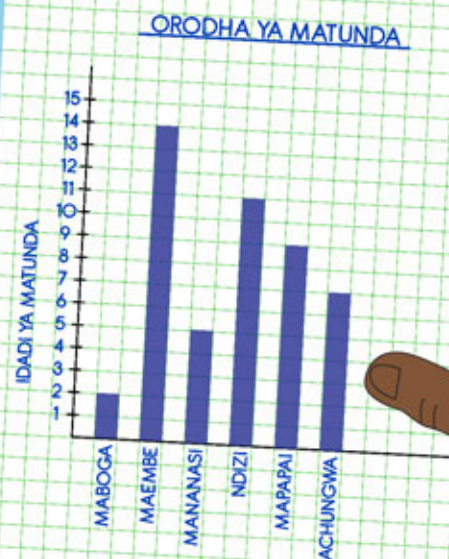
Kibena alimpa Mzee Kigo grafu yake
akamwambia alifanya vizuri.



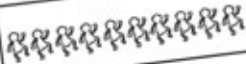
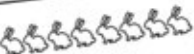
Kibena alisema, “Sikujua jinsi ya kuichora kama ulivyofanya, ndiyo maana nilichora wanyama niliowahesabu ili nisisahau idadi yao.”

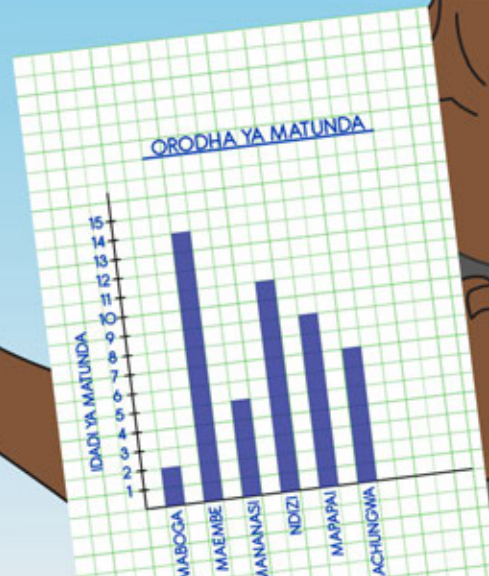
ORODHA YA WANYAMA

TWIGA	
NGEDERE	
SUNGURA	
KOBE	
NDEGE	
TEMBO	



“Grafu yako inafanya kazi pia,
Kibena. Utaona aina zote
zinatusaidia,” Mzee Kigo aliitika.

ORODHA YA WANYAMA	
TWIGA	
NGEDERE	
SUNGURA	
KOBE	
NDEGE	
TEMBO	



Kibena aliwaomba rafiki zake wahesabu
matunda wakiyaweka kwenye gari.

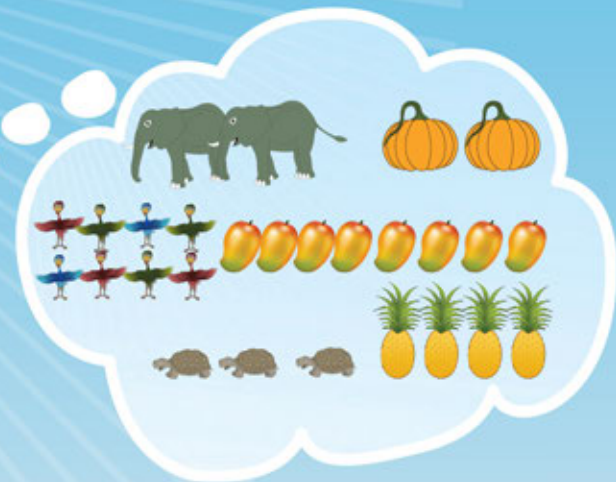
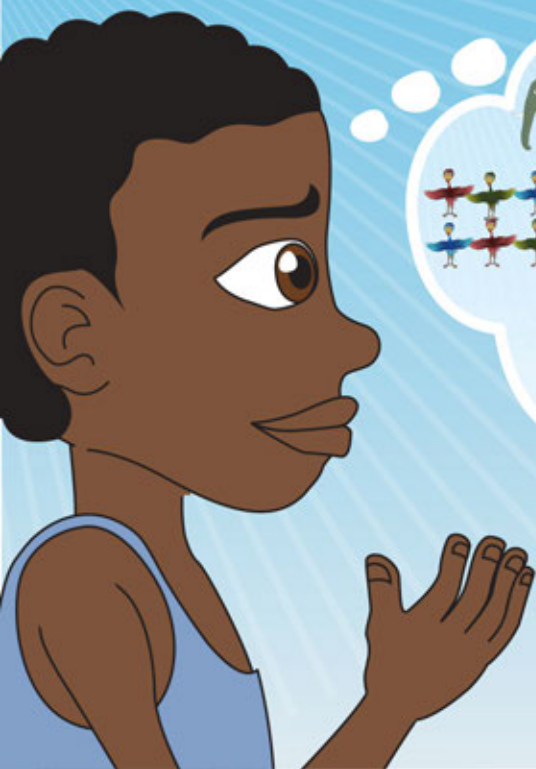


Koba alimwomba Kibena achora picha za matunda kama alivyofanya na wanyama.

RODHA YA WANYAMA	
TWIGA	
NGEDERE	
SUNGURA	
KOBE	
DEGE	
	

ORODHA YA MFI	
MABOGA	
MAEMBE	
MANANASI	
NDIZI	
MAPAPAI	
MACHUNGWA	

Aliona ingekuwa rahisi zaidi kulinganisha orodha ya wanyama na orodha ya matunda.



ORODHA YA WANYAMA	
TWIGA	
NG'EDERE	
SUNGURA	
MOBE	
NDICE	



ORODHA YA MATUNDA	
MAROGA	
MAIMBE	
MANAKUSI	
NEZI	
MAWPI	
MACHOGWA	

“Maboga mawili,
maembe kumi na nne,
mananasi matano,
ndizi kumi na moja,”
Koba alihesabu,
wakati Kibena
akichora picha
za matunda.

ORODHA YA MATUNDA

MABOGA	
MAEMBE	
MANANASI	
NDIZI	
MAPAPAI	

“Ngoja, Kibena. Hebu ona grafu hizi mbili,” Baraka alisema.



Alikuwa ameona kwamba urefu wa mistari ya grafu ya Mzee Kigo ulikuwa sawasawa na urefu wa matunda Kibena aliyochora.

ORODHA YA MATUNDA

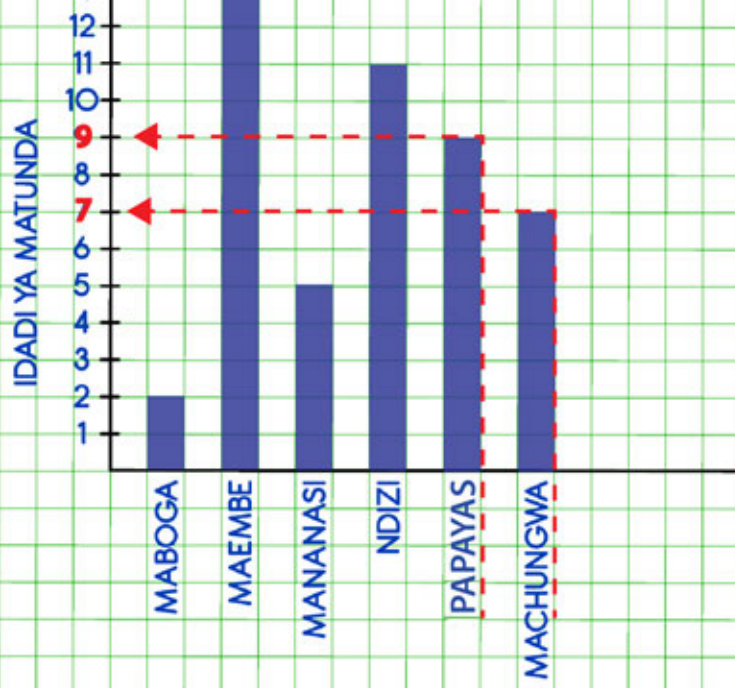
MABOGA	○○○
MAEMBE	○○○○○○○○○○○○○○○○
MANANASI	○○○○○○
NDIZI	))))))))))
MAPAPAI	
MACHUNGWA	

ORODHA YA MATUNDA



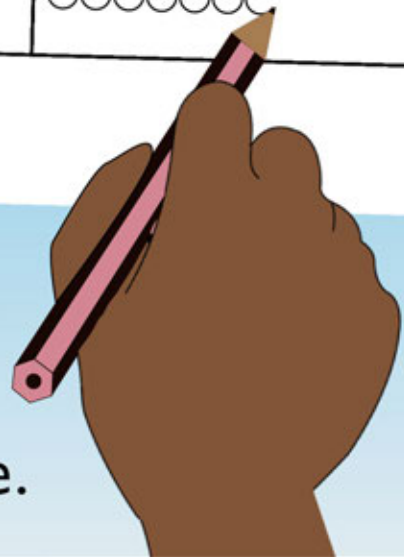
“Uko sahihi, Baraka. Una akili! Tusipoteze muda kwa kuyahesabu tena. Inabidi tujifunze kusoma hiyo ya Mzee Kigo. Itakuwa haraka zaidi.”





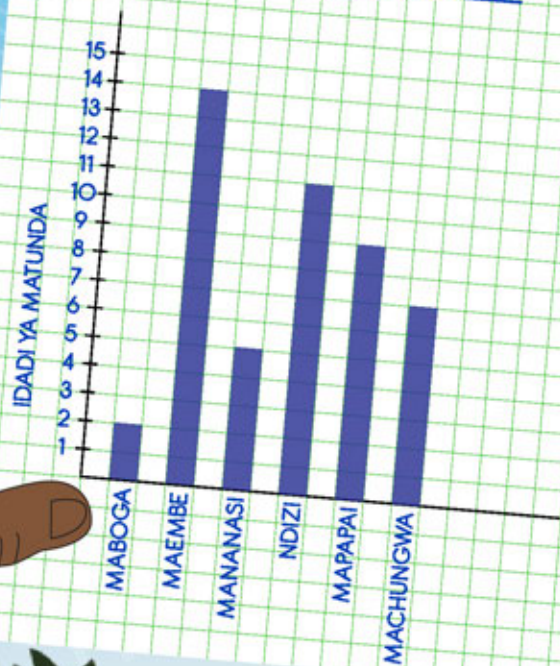
MANANASI	
NDIZI	
MAPAPAI	
MACHUNGWA	

Alianza kusoma grafu ya Mzee Kigo, kisha akachora mapapai tisa na machungwa saba kwenye grafu yake mwenyewe.



Kisha aligeuza grafu yake...

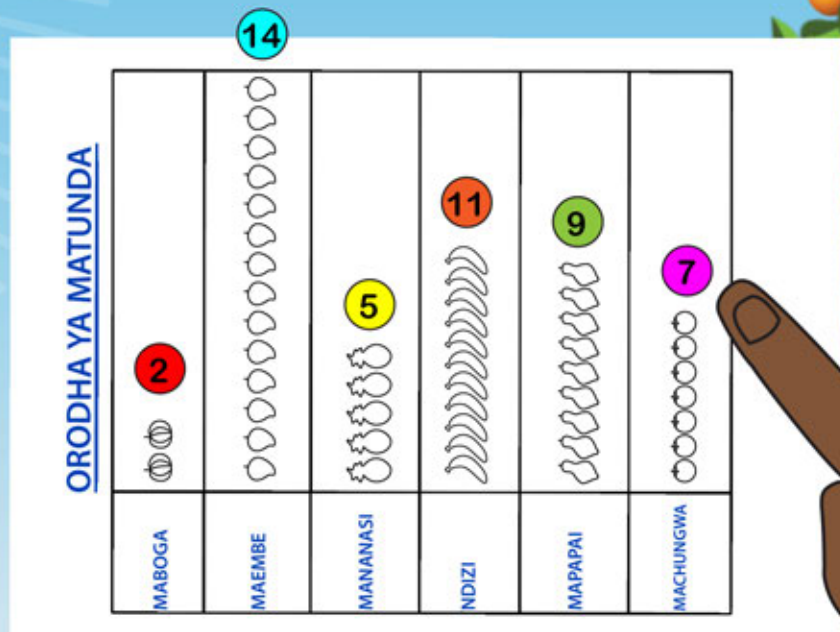
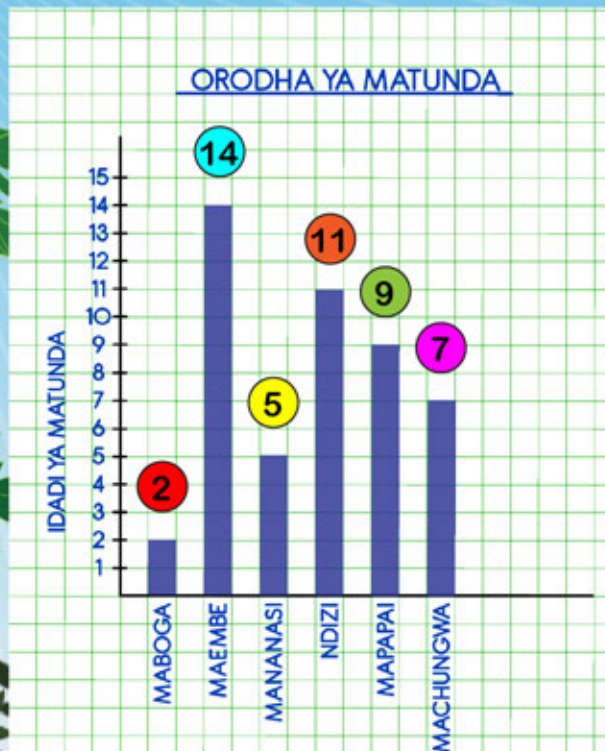
ORODHA YA MATUNDA



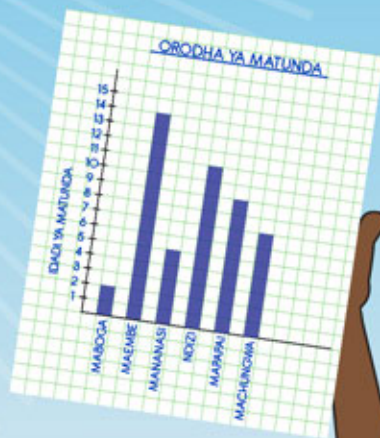
ORODHA YA MATUNDA

MABOGA	🍌
MAEMBE	🍌🍌🍌🍌🍌🍌🍌🍌🍌🍌🍌🍌🍌🍌🍌
MANANASI	🍌🍌🍌🍌
NDIZI	🍌🍌🍌🍌🍌🍌🍌🍌🍌🍌🍌
MAPAPAI	🍌🍌🍌🍌🍌🍌🍌🍌🍌🍌
MACHUNGWA	🍌🍌🍌🍌🍌🍌

...ili kulinganisha picha zake za matunda na mistari ya grafu ya Mzee Kigo.



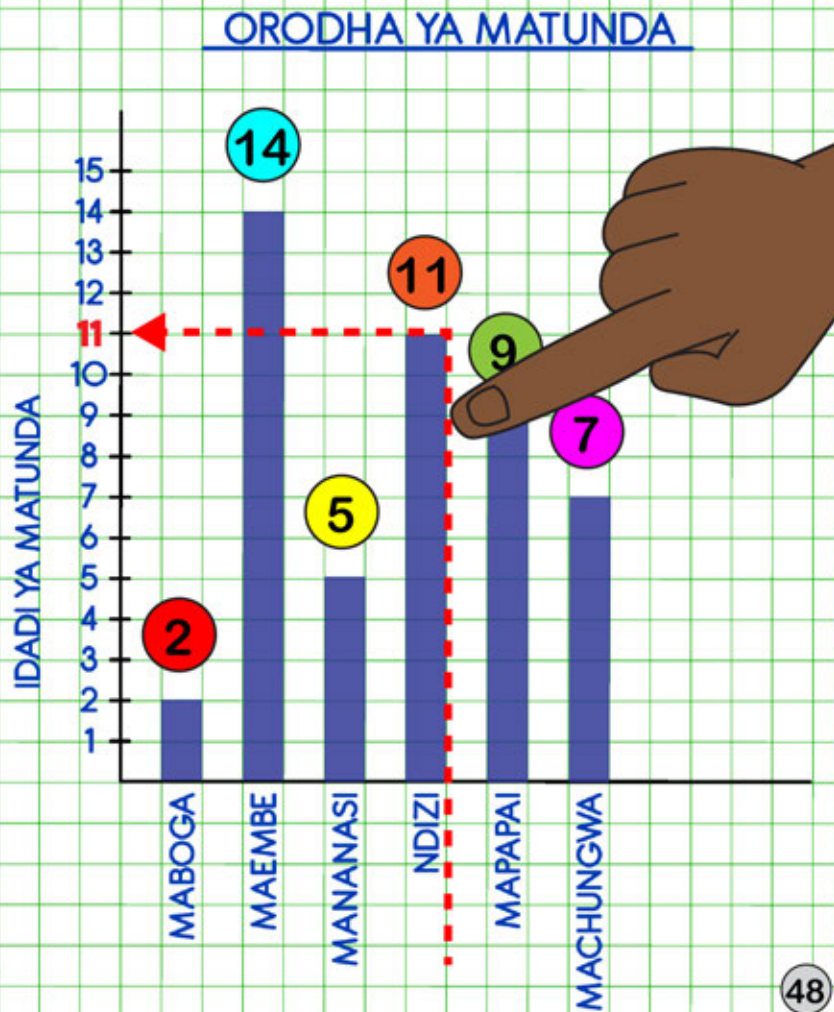
“Umefahamu? Grafu hizi mbili zinatambua sawasawa. Tukitumia grafu yangu, tunahesabu matunda.”



ORODHA YA MATUNDA

MARICA	2
MAEMBE	13
MANANSA	4
NOZI	10
MAJANI	8
MACHUNDA	5

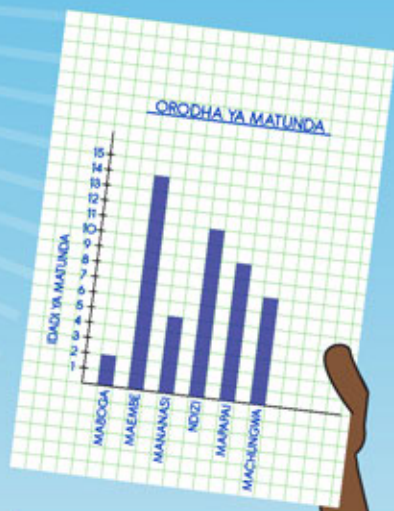
Tukitumia grafu ya Mzee Kigo, tusome jina la tunda chini, tukafuate mstari hadi mwisho wake. Nikisogeza kidole changu upande wa kushoto naweza kusoma namba ambayo ni idadi.



Ndiyo maana Mzee Kigo alituambia grafu zote zitatusaidia! Asante kwa kutujulisha Baraka!”



Halafu Kibena alisema, “Sasa tuhakikishe grafu zinatoa idadi sawasawa.

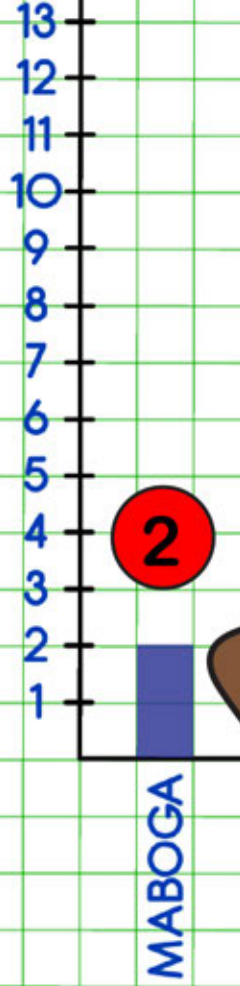


ORODHA YA MATUNDA

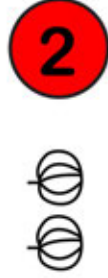
Kategoria	IDADI YA MATUNDA
MABOGA	2
MAEMBE	13
MANANASI	5
NDZI	10
MAPANI	8
MACHANGWA	6

Ya kwangu inaonyesha
maboga mawili, na
grafu ya Mzee Kigo
ina mstari unaofikia
namba mbili.

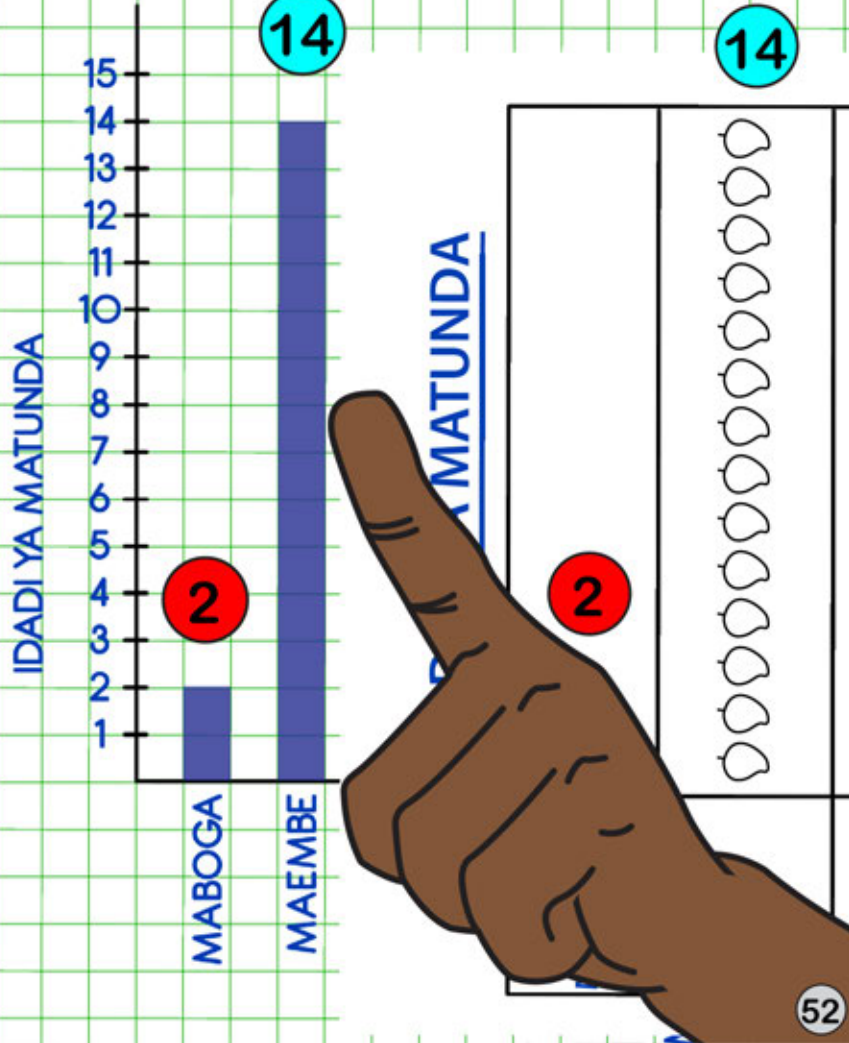
IDADI YA MATUNDA



ORODHA YA MATUNDA

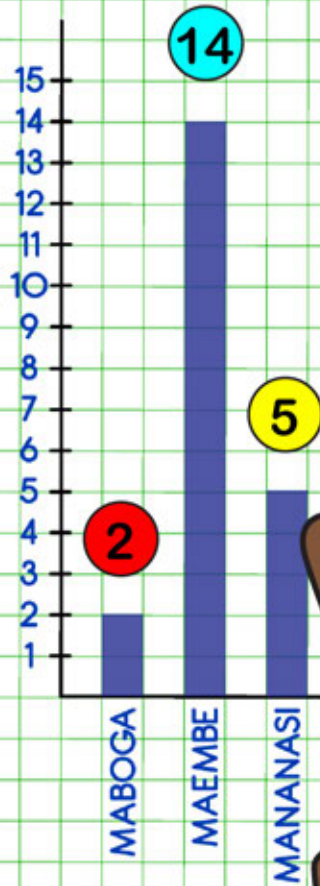


Grafu yangu
inaonyesha maembe
kumi na nne, na grafu
yake ina mstari
unaofikia namba
kumi na nne.

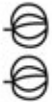


Grafu yangu
inaonyesha
mananasi matano
na grafu yake ina
mstari unaofikia
namba tano.”

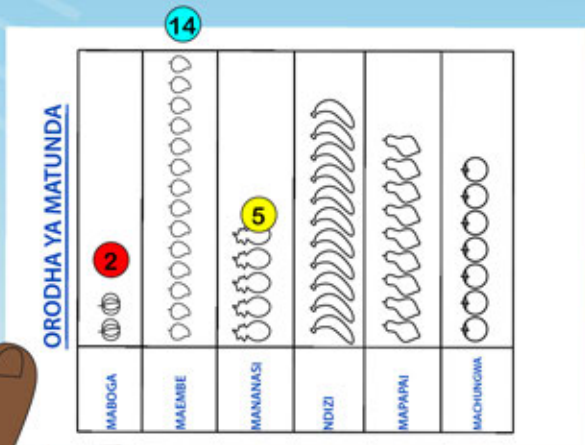
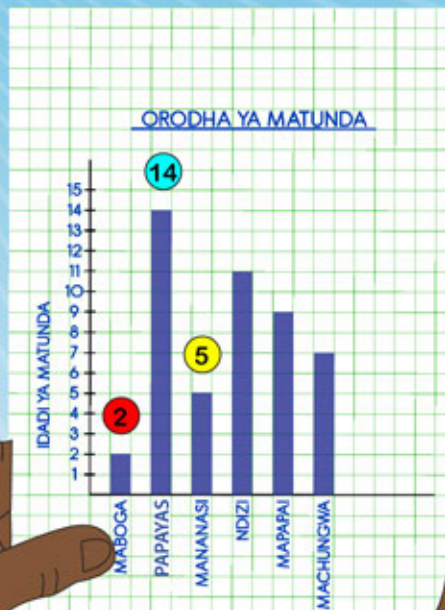
IDADI YA MATUNDA

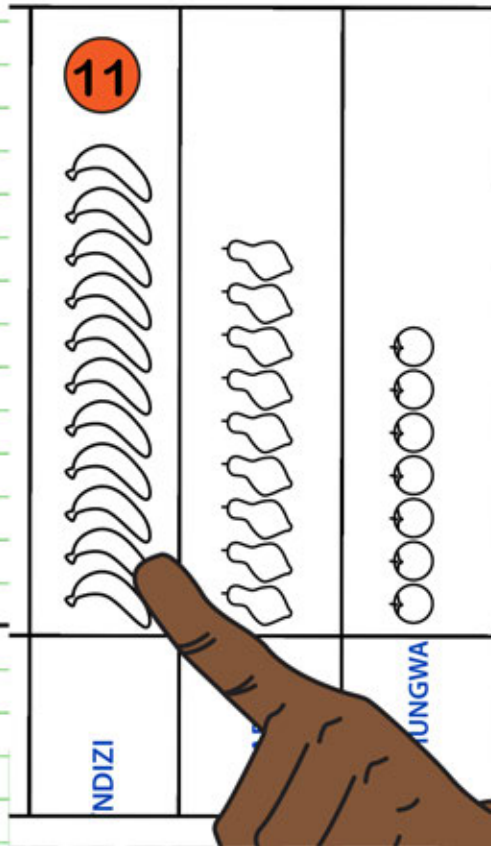
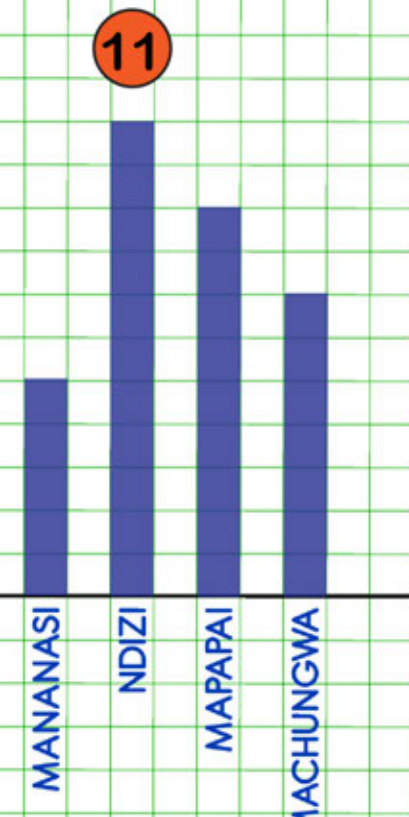


ORODHA YA MATUNDA

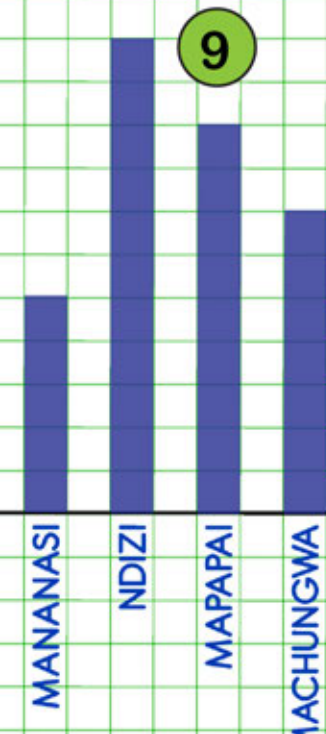
2	14	5
		
MAEMBE	MAEMBE	MANANASI

“Kibena, inaonekana ni rahisi kufanya hivi. Naomba nijaribu kusoma grafu,” Baraka aliomba.



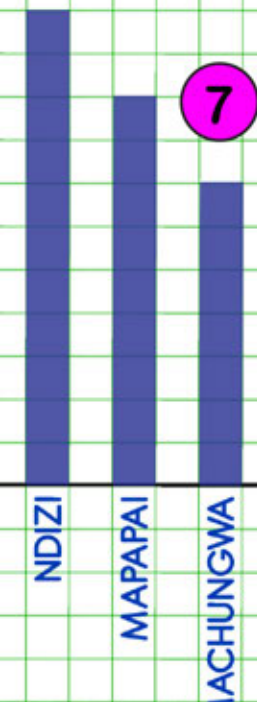


“Hapa tuna ndizi kumi na moja, na mstari wa ndizi unafikia namba kumi na moja pia.



NDIZI	
MAPAPAI	
MACHUNGWA	

Hapa tuna
mapapai tisa,
na mstari wa
mapapai
unafikia
namba tisa.



NDIZI		
MAPAPAI		
MACHUNGWA		7

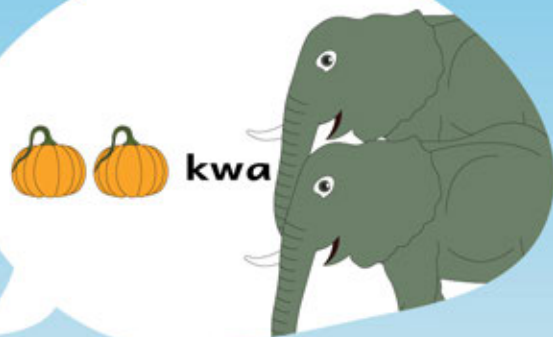
Hapa tuna
machungwa
saba na mstari
wa machungwa
unafikia namba
saba.

Niko sahihi,
Kibena?"

“Ndiyo, hongera Baraka. Sasa tuna idadi sahihi kwa kila aina ya tunda, inabidi tuamue wanyama wapi wapate nini,” Kibena alisema.



Kibena aliamua kwamba twiga wapewe machungwa kwa sababu idadi ya tembo ilikuwa sawasawa na idadi ya maboga, na vilevile twiga wapewe machungwa.



ORODHA YA MATUNDA	
MABOGA	8
MACHUNGWA	8
MACHUNDA	10
MACHUNDA	10
MACHUNDA	10
MACHUNDA	10

“Usisahau sisi ngedere!”
Ngedere aliita.



“Usijali. Hebu tusome kuna ngedere wangapi,” Kibena alijibu.



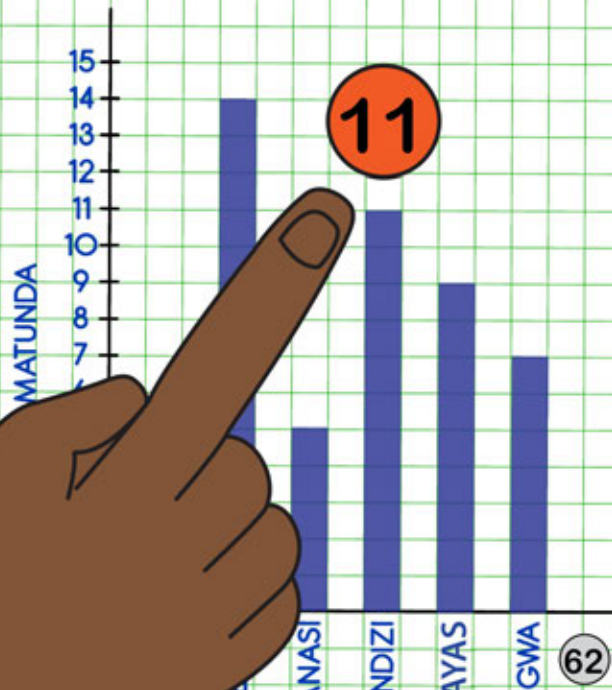
GROENSAAR WENTYMA	
TUNJA	
NEDER	
JONGER	
ROE	
NEDER	
TENDE	

“Kuna ngedere kumi,
kwa hiyo wapewe ndizi
kumi na moja.”

10

GA	
NGEDERE	
GURA	
E	
GE	
IBO	

ORODHA YA MATUNDA



“Ye! Nipe ya kwangu sasa,
kama malipo kwa kukupa lifti,”
Ngedere alisema.

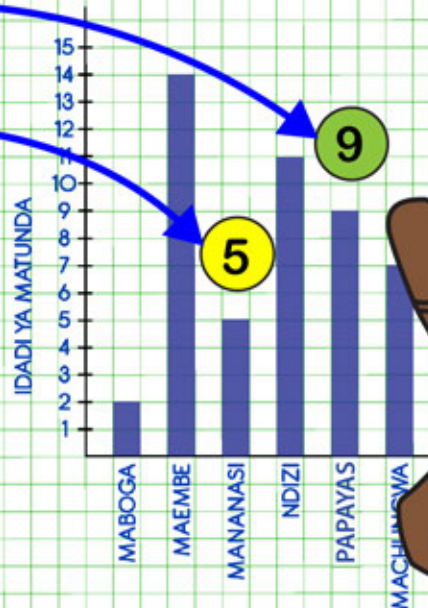


Halafu Koba aliamua kobe
watano wapewe mananasi matano,
na sungura nane wapewe mapapai nane.

ORODHA YA WANYAMA

TWIGA	
NGEDERE	
SUNGURA	 8
KOBE	 5
NDEGE	
TEMBO	

ORODHA YA MATUNDA



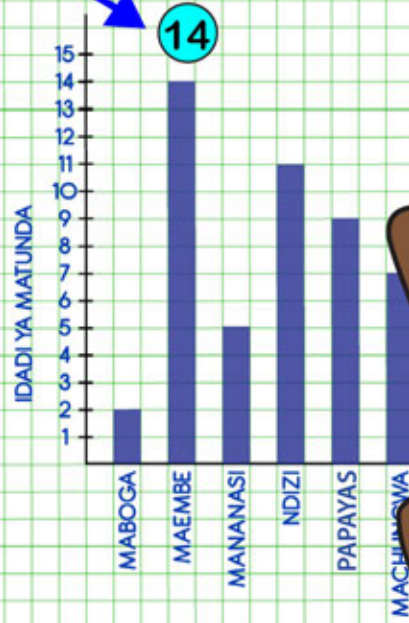
“Usisahau ndege!” Ngedere aliwakumbusha. Koba alisema ndege kumi na mbili wapewe maembe kumi na nne.

ORODHA YA WANYAMA

TWIGA	
NGEDERE	
SUNGURA	
KOBE	
NDEGE	
TEMBO	

12

ORODHA YA MATUNDA

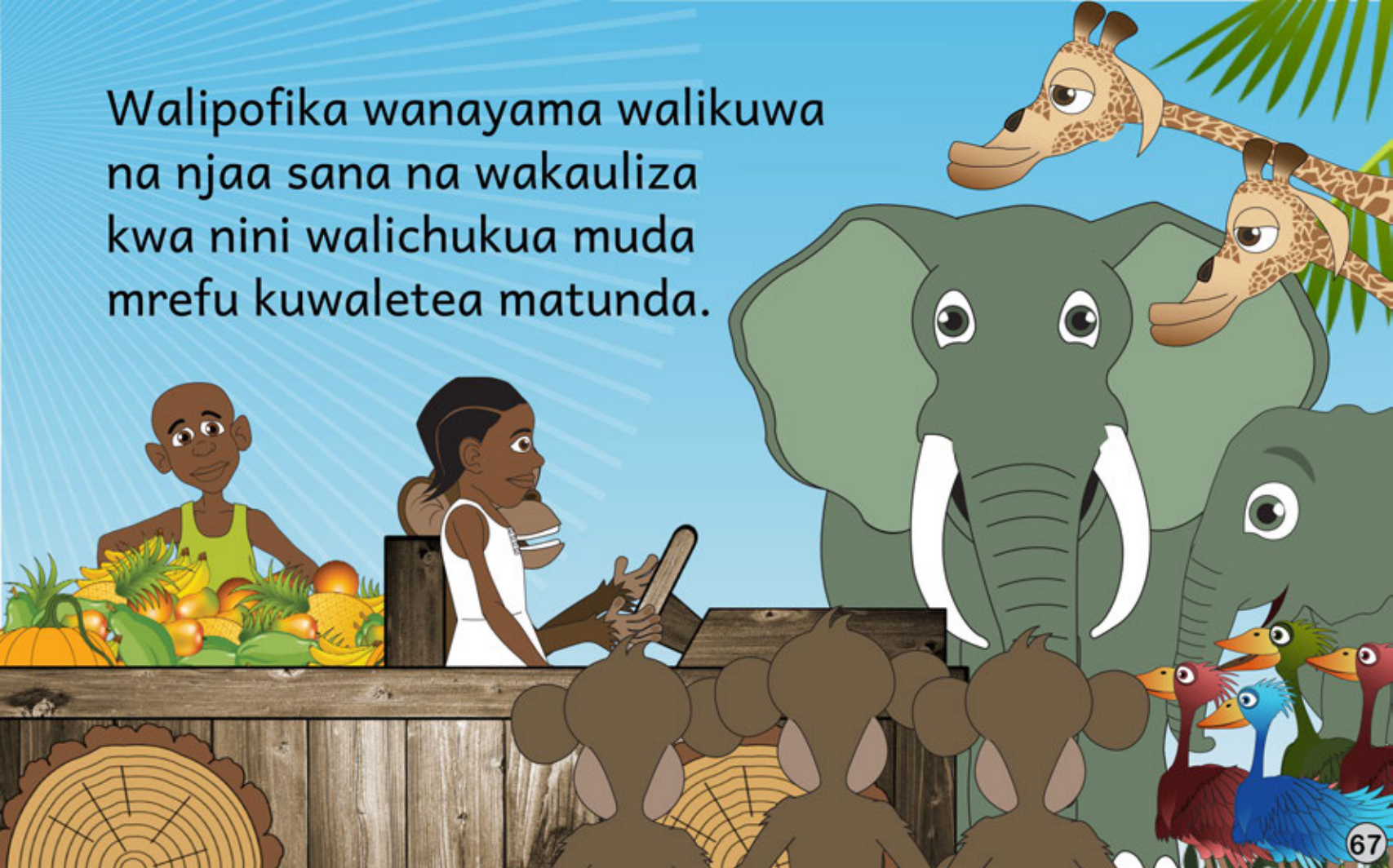


14

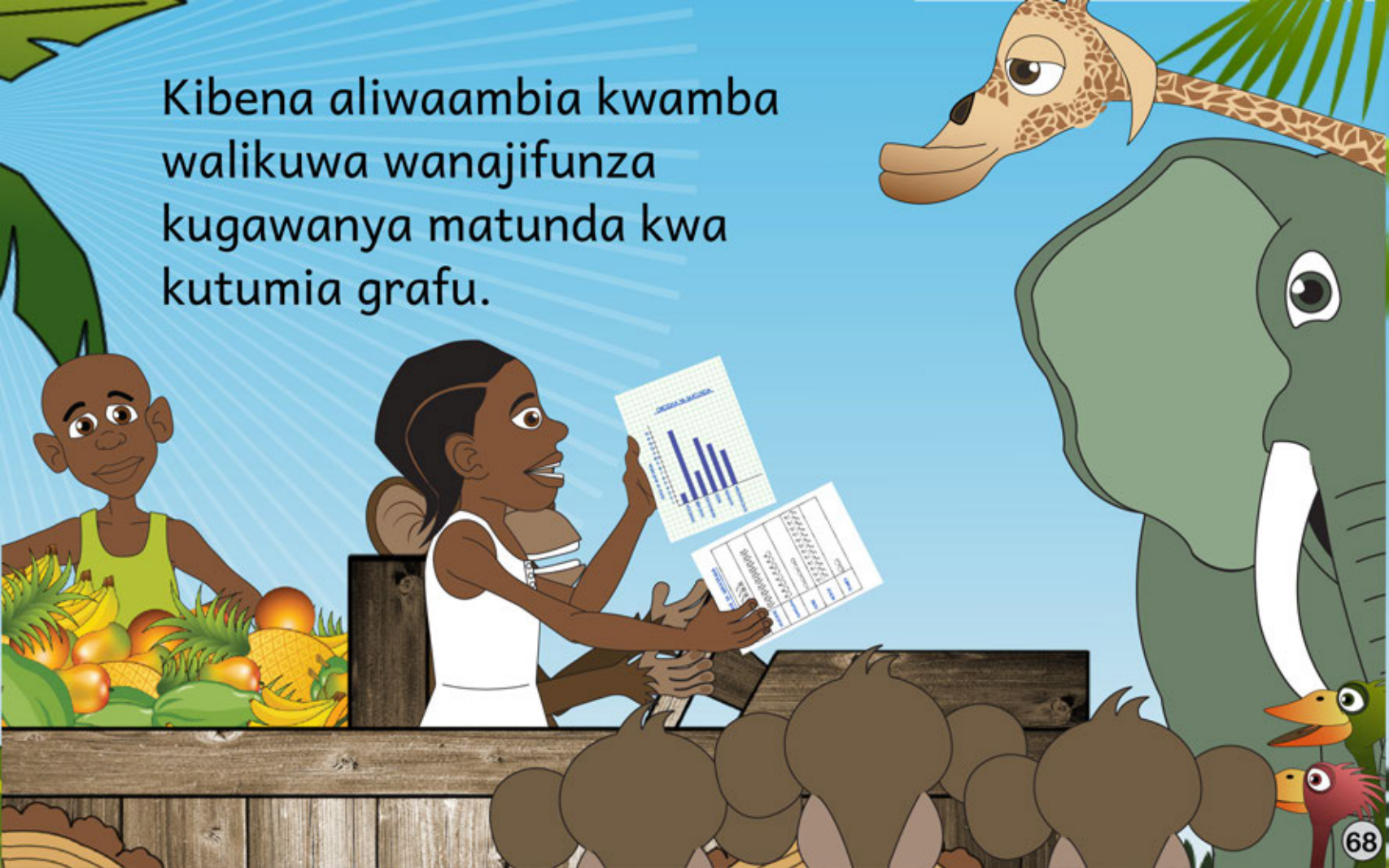
Kwa haraka watoto walimaliza kuweka matunda
kwenye gari na Ngedere aliwapeleka kwa wanyama.



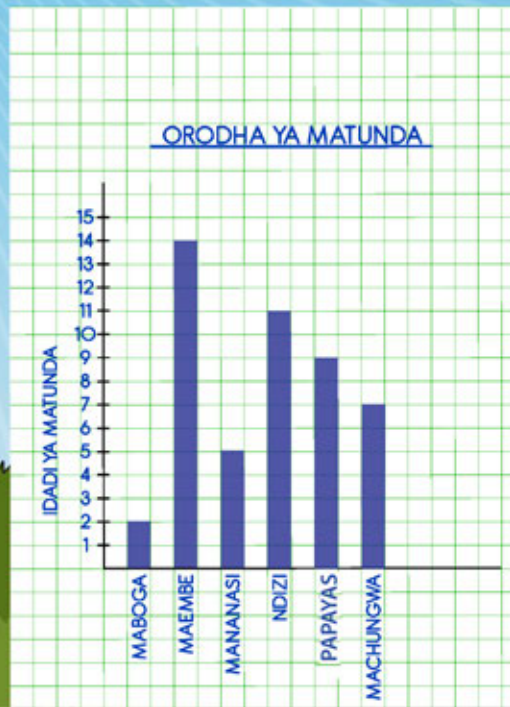
Walipofika wanayama walikuwa
na njaa sana na wakauliza
kwa nini walichukua muda
mrefu kuwaletea matunda.



Kibena aliwaambia kwamba
walikuwa wanajifunza
kugawanya matunda kwa
kutumia grafu.



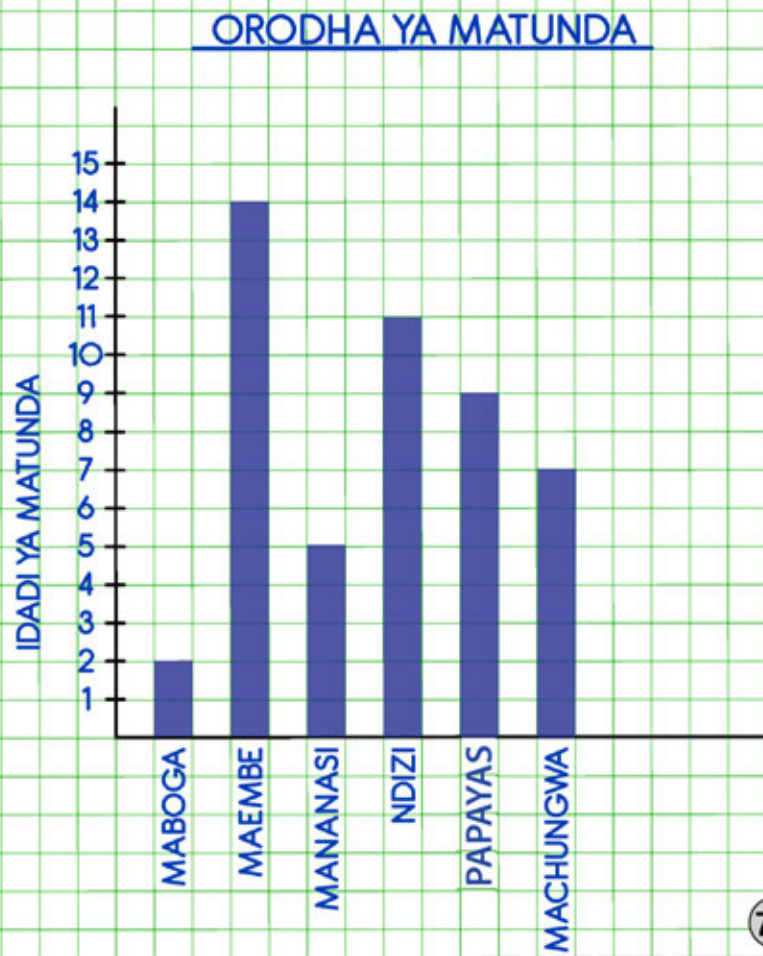
Mama Ndege alifurahi sana aliposikia neno “grafu”. Alizishika akisema, “Grafu ni namna rahisi ya kuonyesha viasi kwa kutumia picha!”



ORODHA YA WANYAMA

TWIGA	
NGEDERE	
SUNGURA	
KOBE	
NDEGE	
TEMBO	

“Hii ni grafu yenye mistari.
Inaonyesha Mzee Kigo
ana kiasi gani cha kila
aina ya tunda.



Na hii ni grafu yenye picha.
Inaonyesha idadi ya kila
aina ya mnyama kwa
kutumia picha.”



ORODHA YA WANYAMA

TWIGA	
NGEDERE	
SUNGURA	
KOBE	
NDEGE	
TEMBO	

Kibena alisema, “Ndiyo kweli. Kwa kutumia grafu mbili kulinganisha namba ya wanyama na namba ya matunda ilikuwa rahisi kujua wanyama wapewe matunda gani.”



“Dah, kama ungalienda na
Mama Ndege ungalirudi
mapema zaidi!” Anko T alisema.



Kibena alitabasamu akasema, “Bora tujifunze wenyewe! Haya njooni mchukue matunda yenu. Na msipigane tafadhali!”





Mwisho

Imeandaliwa na

ubongo.co

Haki zote zimehifadhiwa.
Hairuhusiwi kupiga chapa au kukitoa kitabu hiki kwa njia
ya aina yoyote bila idhini ya mwandishi,
UBONGO INTERNATIONAL.