



**KWAZULU-NATAL PROVINCE**

EDUCATION  
REPUBLIC OF SOUTH AFRICA

**MOTHER TONGUE-BASED BILINGUAL EDUCATION  
(MTbBE): NS & TECH  
AMENDED END OF YEAR EXEMPLAR: 2025**

**IBANGA 4**

Isifundo            Isayensi Yemvelo neThekhnoloji

LoLTA:            IsiZulu

Amamaki:        40

Isikhathi:        Ihora eli-1 nemizuzu engama-20

**ngaphandle** kwemizuzu eyi-15 yesikhathi sokufunda

Isibongo: \_\_\_\_\_ Igama: \_\_\_\_\_

Ikilasi: \_\_\_\_\_ Igama lesikole: \_\_\_\_\_

**Lesi sivivinyo sinamakhasi ayi-7 ngaphandle kwalelikhasi elimbozile.**

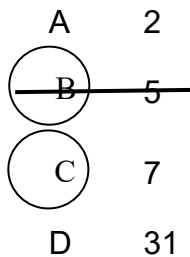
## Imiyalelo kumfundi

1. Uzonikezwa imizuzu eyi-15 yokufunda ngaphambi kokuphendula lesisivivinyo.
2. Uthisha uzokulekelela ukwenza umsebenzi wokuzijwayeza.
3. Funda yonke imiyalelo nemibuzo ngokucophelela.
4. Phendula yonke imibuzo.
5. Bhala ngobunono nangokufundekayo.
6. Ungayisebenzisi ikhalkhuleytha.
7. Onke amadayagramu awadwetshiwe ngokwe-skeyli (scale).

## Umsebenzi wokuzijwayeza

Indlela yokuphendula umbuzo onezimpendulo ozikhethela kuzona nokulungisa iphutha.

2. Zingaki izinsuku evikini?



Uma wenze iphutha ngokukokelezela uhlamvu B, dweba umugqa ku-B, kanye nempendulo yakhe. Bese ukokelezela uhlamvu C okuyimpendulo eyiyonayona.

## ISIGABA A

Kokelezela uhlamvu olunempendulo okuyiyonayona kusukela embuzweni 1.1 – 1.14.

- 1.1 Yikuphi okukhombisa ukusetshenziswa kwe-eneji?
- A inyamazane egijimayo
  - B izincwadi eziphezu kwesihlalo
  - C inkukhu ehlezi
  - D inkomishi enamanzi (1)
- 1.2 Yini esisiza ukuthi senze umsebenzi?
- A umzimba
  - B amandla
  - C umfutho
  - D i-eneji (1)
- 1.3 Khetha uhlu olulungile lokudluliswa kwe-eneji (energy transfer) kokulandelayo.
- A iLanga → imbuzi → utshani → umuntu
  - B imbuzi → iLanga → utshani → umuntu
  - C iLanga → utshani → imbuzi → umuntu
  - D utshani → iLanga → imbuzi → umuntu (1)
- 1.4 Iyiphi i-awthphuthi (output) eneji etholakala uma uvula ithoshi?
- A i-eneji yomsindo
  - B i-eneji yokukhanya
  - C i-eneji yokunyakaza
  - D amabhethri (1)
- 1.5 Hlonza umsuka we-eneji (energy source) okhiqiza i-eneji uma ifakwa ethoshini.
- A ugesi
  - B ukudla
  - C ibhethri
  - D amalahle (1)
- 1.6 Uma umfana ekhahlela ibhola. Ibhola linaluphi uhlobo lwe-eneji uma lisemoyeni?
- A eyokushisa
  - B eyokunyakaza
  - C eyokukhanya
  - D eyomsindo (1)

- 1.7 Kwenzekani uma ushaya isigubhu? Sikhipha ...
- A amanzi
  - B ukushisa
  - C ukukhanya
  - D umsindo (1)
- 1.8 Iwukhiqiza kanjani umsindo ivuvuzela?
- A ngokushaywa (hitting)
  - B ngokufuthwa (blowing)
  - C ngokuplakhwa (plucking)
  - D ngokushukuzwa (shaking) (1)
- 1.9 Uzwakala kanjani umsindo uma ushaya isigubhu kakhudlwana? Uzwakala ...
- A uphezulu
  - B uphansi
  - C ushesha
  - D upholile (1)
- 1.10 Yini eyisishiyagalombili (8) ezungeze iLanga uMhlaba oyingxenye yakho?
- A amarokhethi
  - B izinkanyezi
  - C amaplanethi
  - D izinyanga (1)
- 1.11 Mangaki amazwekazi aseMhlabeni esewonke?
- A 5
  - B 6
  - C 7
  - D 8 (1)
- 1.12 Ingakanani iNyanga uma siyiqhathanisa noMhlaba?
- A incane kunoMhlaba
  - B iyalingana noMhlaba
  - C inkudlwana kunoMhlaba
  - D inkulu kakhulu kunoMhlaba (1)
- 1.13 Yini ezungezwa noma ijikelezwa (orbits) iNyanga uma ihamba?
- A ikhomethi
  - B uMhlaba
  - C amaplanethi
  - D iLanga (1)

1.14 Yini ethatha ingxenye enkulu yesafesi yoMhlaba?

- A inhlabathi
- B izitshalo
- C amatshe
- D amanzi

(1)

1.15 Qondanisa iKholamu A neKholamu B ngokudweba imigqa.

iKholamu A	
1.15.1	iPlanethi ejikeleza iLanga
1.15.2	indilinga enamadwala abandayo ejikeleza uMhlaba wethu
1.15.3	ukufutha (blowing)
1.15.4	ukushaya (hitting)
1.15.5	umsuka (source) we- eneji yokushisa

iKholamu B		
A	idramu	(1)
B	ivuvuzela	(1)
C	umlilo	(1)
D	uMhlaba	(1)
E	iNyanga	(1)

Phendula ezikhaleni ezinikeziwe kusuka embuzweni 1.16 – 1.19.

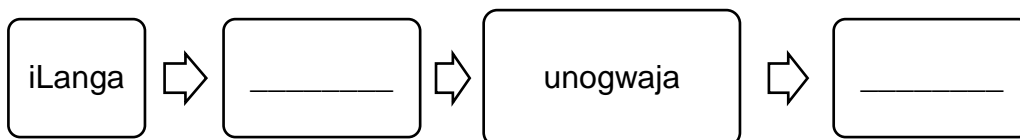
1.16 Nikeza ithemu EYODWA esitatimendeni esilandelayo.

Siyakwazi ukuthi senze umsebenzi sisizwa i....

**Ipendulo:** \_\_\_\_\_ (1)

1.17 Sebenzisa amagama asebhokisini ukuqedela inkombakulandelana ye- eneji (energy flow diagram).

utshani, unogwaja, iLanga, umuntu



(2)

1.18 Nikeza i-aplayensi EYODWA eshintsha i-eneji egciniwe ibe i-eneji yomsindo.

**Ipendulo:** \_\_\_\_\_ (1)

1.19 Iluphi uhlobo lwensimbi yomculo ekhiqiza umsindo ngokuplakhwa (plucking)?

**Ipendulo:** \_\_\_\_\_ (1)


1.20 Chaza ukuthi i-eneji yokukhanya evela eLangeni izisiza kanjani izitshalo.

**Impendulo:** \_\_\_\_\_  
 \_\_\_\_\_ (1)

1.21 Shono ukuthi insimbi yomculo ebizwa isigingci ingeyesimanje noma eyendabuko.

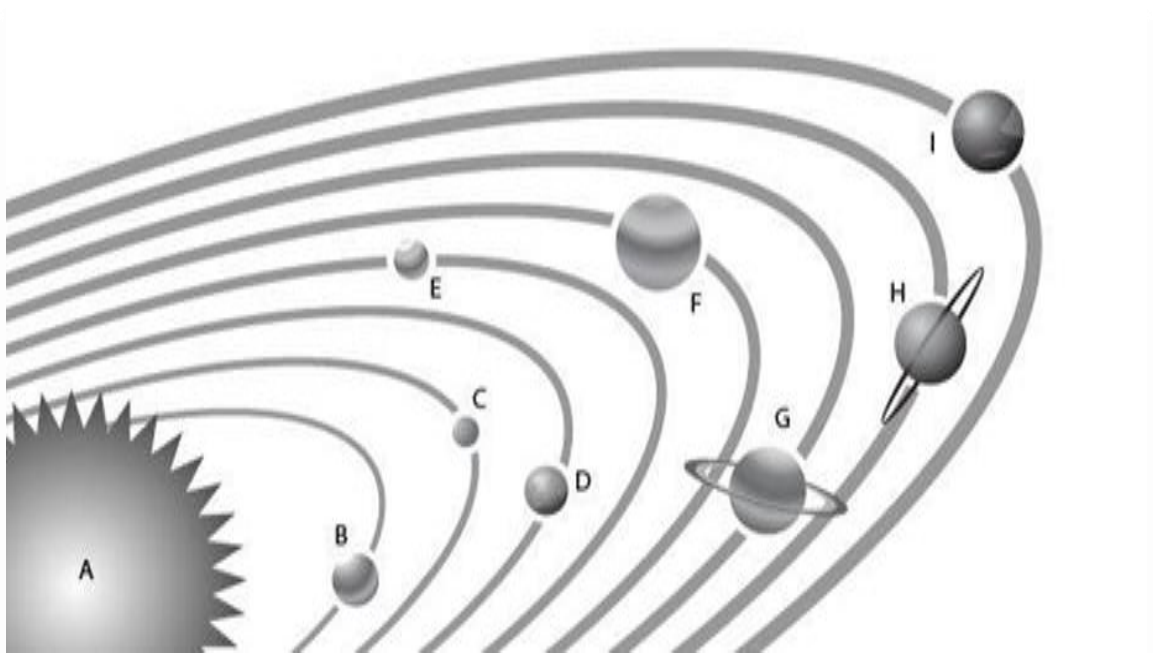
**Impendulo:** \_\_\_\_\_ (1)

1.22 Ithebula likhombisa ithelevishini (TV) kanye ne-inphuthi (input) eneji. Qedela izimpendulo ezishodayo ku-a) naku-b).

<b>Idivaysi:</b>	<b>I-inphuthi eneji</b>	<b>I-awthphuthi (output) eneji</b>	<b>Esikuqaphelayo</b>
<b>IThelevishini</b> 	I-eneji egciniwe kugesi	a) _____ _____	b) _____ _____

(2)

1.23 Buka umdwebo we-sola sistimu ongezansi bese uphendula imibuzo elandelayo.



1.23.1 Lebula / Bhala igama leplanethi D kulesisithombe esingenhla.

**Impendulo:** \_\_\_\_\_ (1)

1.23.2 Nikeza isizathu, kungani izinto eziphilayo zitholakala kuphela kuplanethi-D.

**Impendulo:** \_\_\_\_\_

\_\_\_\_\_ (1)

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## SECTION B

Circle the letter of the correct answer for questions 2.1 – 2.5.

- 2.1 How does the sound travel from the radio to your ears? It travels through the...
- A ear particles
  - B space particles
  - C skin particles
  - D air particles (1)
- 2.2 What type of pollution refers to unwanted loud sounds that can harm people and animals?
- A water pollution
  - B air pollution
  - C noise pollution
  - D sound pollution (1)
- 2.3 What do people use rockets for?
- A To travel to planet Earth.
  - B To travel into space and visit moon.
  - C To travel to visit the Sun.
  - D To cruise on the ocean. (1)

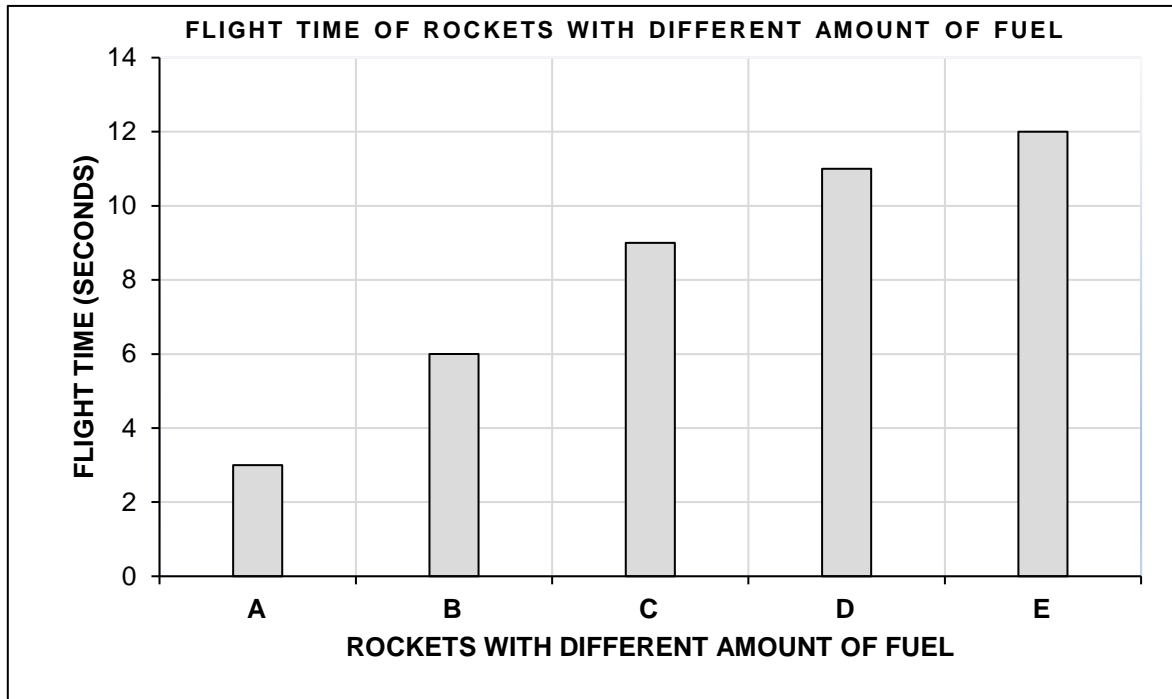
**Answer question 2.4 and 2.5 on the spaces provided.**

2.4 What is the source of energy for the rocket system?

**Answer:** \_\_\_\_\_ (1)

2.5 Study the graph below showing the relationship between the amount of fuel in a rocket and its flight time. Fuel amount of rockets: A = 10ml, B = 17ml, C = 28ml, D = 35ml and E = 48ml.

Answer the questions that follow.



2.5.1 Which rocket took the shortest time to fly?

**Answer:** \_\_\_\_\_ (1)

2.5.2 Which rocket took the longest time to fly?

**Answer:** \_\_\_\_\_ (1)

2.5.3 Give reason for your answer in 2.5.2.

**Answer:** \_\_\_\_\_ (1)

\_\_\_\_\_

2.5.4 Which rocket took 6 seconds to fly?

**Answer:** \_\_\_\_\_ (1)

2.5.5 How long did it take rocket C to fly?

**Answer:** \_\_\_\_\_ (1)

**[9]**

**Isamba samamaki: 40**