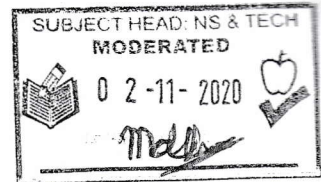


06-11-2020 Meester Seja



L/S Van Dyk Primary

District 16

EMIS NO: 700160994



Natural Science and Technology-Grade 4

Examination- Term 4 2020

Specific Aims: 1 & 2

Examinator: Ms. L Opperman

Moderator: Mrs. M du Preez

Total: ____ / 40 = ____ % Scale: ____

Name & Surname: _____

Grade 4. ____

Date: _____

Duration: 60 min

ASSESSMENT TOOL:

Rating code	%	Description
7	80 - 100%	Outstanding Achieved
6	70 - 79%	Meritorious Achieved
5	60 - 69%	Substantial Achieved
4	50 - 59%	Adequate Achieved
3	40 - 49%	Moderate Achieved
2	30 - 39%	Elementary Achieved
1	0 - 29%	Not Achieved

Instructions:

- Read all your questions very carefully before answering!!!!
- Answer **ALL** the questions.
- Make sure all the details on the cover page is completed.
- Write neatly and presentable.
- Use a blue pen.

Question 1

[10]

Answer the following questions:

1.1. Give the scientific name/term for each of the following statements:

a) Any living thing that **ONLY** eats **PLANTS**.
_____ (1)

b) Any living thing that **ONLY** eats other **ANIMALS/MEAT**.
_____ (1)

c) Any living thing that eats both **PLANTS** and **ANIMALS**.
_____ (1)

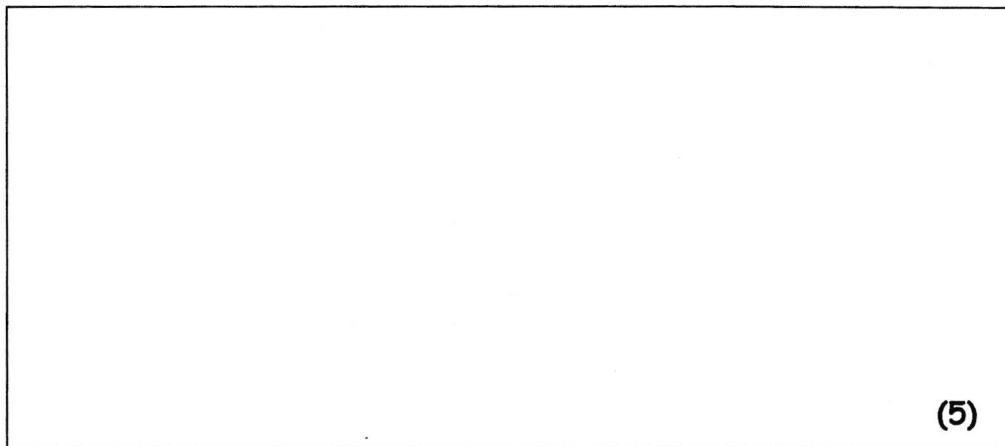
d) The **ENERGY** that goes **INTO** a system/appliance/object to make it work.
_____ (1)

e) The **ENERGY** that comes **OUT** of a system/appliance/object.
_____ (1)

(5)

1.2. Draw (**pictures with writing**) an energy chain to show how energy is transferred from the **SUN** to a person drinking milk.

NB!!! Remember your arrows.



(5)

Question 2

[6]

Determine the **INPUT** and **OUTPUT ENERGY** of each appliance in the table below.

INPUT ENERGY	APPLIANCE	OUTPUT ENERGY
	Wind-up radio	Sound energy
Electrical energy	Fan	
	Hair dryer	
	Bed lamp	

Question 3

[5]

Say whether the following sentences are **TRUE** or **FALSE**.

Question:	Answer:
3.1. Sound is a form of energy	
3.2. All sounds are vibrations	
3.3. Volume is how high or low a sound is	
3.4. Pitch is how loud or soft a sound is	
3.5. Energy can be transferred	

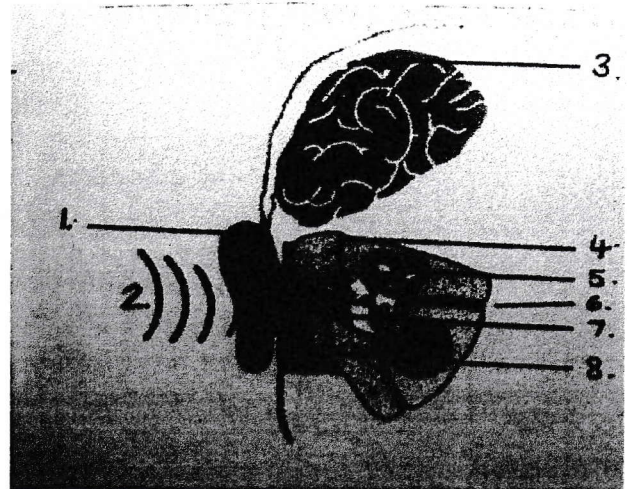
Question 4

[5]

Label the picture by using the words in the word box

Outer ear	middle ear	sound waves	eardrum	brain
-----------	------------	-------------	---------	-------

1. _____
2. _____
3. _____
4. _____
5. Inner ear
6. Nerve
7. _____
8. Ear canal



Question 5

Read the following case study and answer the questions that follows: [14]

Losing your hearing

Xolile Nkutha worked as a miner in a gold mine for 24 years. The mine gave the miners ear muffs to protect their ears. The muffs were hot and uncomfortable to wear and the miners could not hear each other when they wore them. Xolile and the other miners did not wear them very often. They did not know that being in the noisy mine for eight hours every day would damage their hearing. Later, Xolile could not hear people properly when they talked to him. He had his hearing tested by an **audiologist**. He had to wait a long time to get a **hearing aid** from the hospital. The hearing aid made the sounds that entered his ears louder so he could hear what people were saying again.

Description	dB levels	Noise source
Damages hearing immediately	140	Shotgun blast
	130	Plane taking off
	120	Vuvuzela
Extremely loud	110	Car hooter
	100	Underground in a mine
	90	Big truck
Damages hearing over time	80	Factory noise
	70	Classroom noise
Loud	60	People talking in the street
Comfortable	50	People talking at home
	40	Fridge humming
Soft	30	Whisper
	20	Watch ticking
	10	Normal breathing

1. What noise source will cause the most damage to your hearing?
_____ (1)
2. What noise source will cause the least damage to your hearing?
_____ (1)
3. What did the mine give the miners to protect their ears?
_____ (1)
4. Why did they not want to wear them?

_____ (3)
5. Is Xolile Nkutha hearing damaged?
_____ (1)
6. Why is noise pollution bad?

_____ (2)
7. What objects can cause noise pollution?

_____ (2)
8. How does a hearing aid help people who are hearing-impaired?

_____ (1)
9. Musicians playing in bands and orchestras are in danger of hearing loss. So are people who listen to loud music.
 - a. Do you think listening to loud music through earphones can damage your hearing?
_____ (1)
 - b. What can you do to protect your ears?
_____ (1)

TOTAL: 40