



# Noah's Ark Independent Primary School

Subject: NS&T	Examiner: Moyo, S.
Type: End of Year Exam	Moderator: Rwizi, A
Date: 27 November 2019	Grade: 6-_____
Marks: 70 Marks	Time: 1 hr 45 minutes

Name: \_\_\_\_\_

## Instructions:

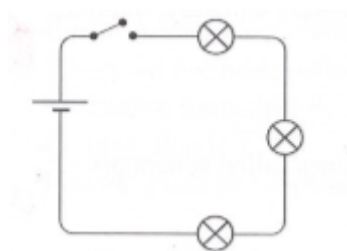
Answer ALL the questions in the spaces provided.

Write neatly and legibly

Carefully read all questions before answering

## Section A: Energy and Change; Systems and Control

1. Study the diagram below and answer the questions that follow.



1.1 State how many cells are connected to the circuit.  $(1 \times \frac{1}{2})$

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1.2 State how many light bulbs are connected to the circuit.  $(1 \times \frac{1}{2})$

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1.3 Explain why the light bulbs will not go on.  $(1 \times 2)$

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2. Suggest any two methods to save electricity at home. (2x1)

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3. Electrical circuits are used to solve many of our lives. Below is a list of problems. Outline the electrical circuit solution that can be used to solve the problem.

3.1 Many car accidents happen at night because people can not see in the dark. (1x1)

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3.2 Cars get stolen when drivers leave them to open their gate at home. (1x1)

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4. Read the case study below and answer the questions that follow.

### **Why people have to steal power**

Snake Park, Soweto – Mrs Xauaka Kokoropo said she was saving money to buy a cable to connect illegally to her neighbour's electricity box. "We know it is illegal," she said, "but I have many appliances and need electricity!" She said that illegal connections would not stop until the authorities help the residents. Her neighbour said that many people have died in shack fires because they used their fires in tin containers to warm up their shacks, but forgot to put them out once they were warm and the shacks and their shacks caught fire. If they had electricity the tragic deaths could have been avoided she added. However, a resident who did not give his name said that illegal connections annoyed residents who pay because they cause power failures and also hurt or kill children.

4.1 List all the dangers of illegal connections. (3x1)

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4.2 List the reasons why people connect illegally. (2x1)

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4.3 Imagine that you are the mayor of Soweto. Draw a bright and colourful poster that encourages people to stop illegal connections. Choose one of the following topics for your poster.

- Illegal connections are dangerous.
- Illegal connections are against the law.

Come up with a slogan or saying that will catch people's attention.

#### Rubric

Criteria	0	1	2
Slogan written and pictures labelled.	Slogan not written and pictures not labelled.	Slogan written, pictures labelled.	
Slogan is relevant.	Slogan not relevant to the topic.	Slogan partially relevant.	Slogan relevant.
Poster is colourful and neatly presented.	Not colourful and not neatly presented.	Yes but not neat or very colourful.	Colourful and neatly presented.

## Section B: Life, living and processing

1. Look at the picture of a burger below and answer the table that follow. (4x1)



Part of hamburgers	Main food group	For
Bun	1.1	1.2
Burger patty	1.3	Growth and repair
Sesame seeds and mayonnaise	1.4	Energy and insulation
Lettuce and tomato	Vitamins and minerals	Healthy immune system

2. Underline only the correct word to complete the following statements about yoghurt correctly. (3x1)
- 2.1 It is produced by (pickling/ fermentation)
- 2.2 It contains (fungi/ bacteria)
- 2.3 It contains the mineral (calcium/ iodine)
3. Look at the picture below and answer the questions that follow.



Figure 3.2 Teeth showing tooth decay

- 3.1 Name at least 2 things that can be done to prevent tooth decay. (2x1)

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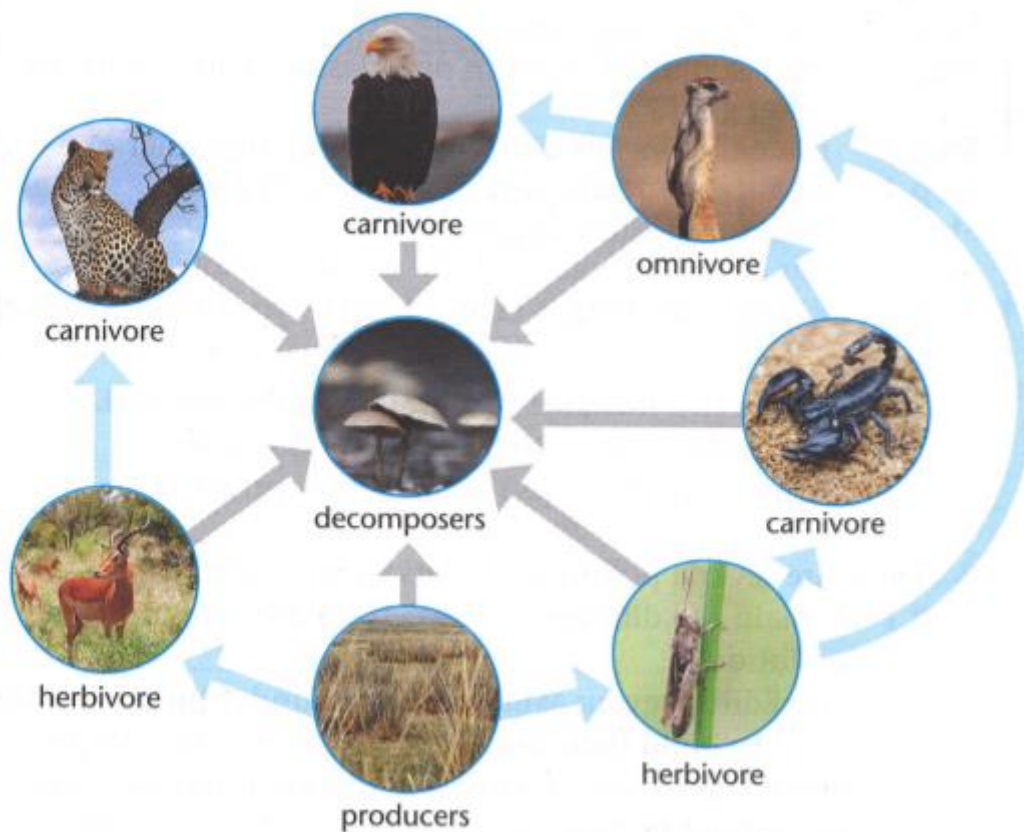
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- 3.2 Give 2 other examples of diet related diseases. (2x1)

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4. Look at the food web become and answer the questions.



4.1 The above food web is found in a grassland ecosystem. Describe this ecosystem. Explain its description, temperature, amount of water and plants. (4x1)

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4.2 Evaluate the importance of photosynthesis in sustaining the above ecosystem. (3x1)

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## Section C: Planet Earth, beyond, systems and control

1. Match the words in column A to the correct meaning in column B. Answer in the space provided. (3x1)

Column A	Answer	Column B
Rotation		a) An imaginary line on which a planet rotates.
Rover		b) Spinning motion of Earth takes 24 hrs to complete.
Axis		c) Vehicle used to explore the surface of other planets.

2. The moon is a natural satellite found in space.

- 2.1 Distinguish between the rotation and revolution of the moon. (4x $\frac{1}{2}$ )

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- 2.2 Describe the surface of the moon in three full sentences. (3x1)

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3. All the planets in the solar system rotate around the sun.

- 3.1 State how long it takes the earth to orbit the sun. (1x1)

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- 3.2 Explain the effect of the Earth's orbit around the sun. (1x1)

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4. Point out one celestial body found in the solar system Except the Sun, moon and planets. (1x1)

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5. Justify why the planet Uranus should also be called an “ice giant.” (1x2)

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6. The four outer planets are gas giants.

Name the two main gases they are made of. (2x $\frac{1}{2}$ )

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7. Complete the following table on the telescopes found in South Africa. (2x1)

Name of the telescope	Type of the telescope	Town found
SALT	7.1	Karoo
SKA	Radio telescope	7.2

8. Give the full name of SALT. (1x1)

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#### Section D: Matter, materials and processing

1. Complete the following sentences by filling in the missing words.

1.1 The particles in a \_\_\_\_\_ can move past one another. (1x1)

1.2 The particles in a \_\_\_\_\_ move in all directions. (1x1)

1.3 The particles in a \_\_\_\_\_ are packed closely together and only vibrates. (1x1)

2. Read the sentence below and answer the questions that follow.

“I put sugar in tea in order to make a mixture of tea and sugar called a saturated solution.”

2.1 Give the scientific term for sugar. (1x1)

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2.2 Give the scientific term for tea. (1x1)

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2.3 Explain why the sugar can dissolve in the tea. (2x $\frac{1}{2}$ )

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2.4 Define a saturated solution. (1x2)

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3. Read through the following experiment that a grade 6 learner conducted.

Hypothesis

Coarse salt (large grains) take longer to dissolve than fine salt.

Method

Steps

1. Use 2 glass beakers

2. Pour 200 ml of water in one glass and 300ml of water into another glass.

3. Place the one glass in the sun and keep the other one cool
4. Add the same amount of salt to each glass.
5. Start to measure the time.
6. Stir each solution until the salt has dissolved.
7. Record how long it takes for each type of salt to dissolve.

3.1. Identify two mistakes in the steps in the method. (2x $\frac{1}{2}$ )

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3.2 Re-write the steps so that the method is correct. (2x1)

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3.3 Explain why the steps needed to be corrected. (1x1)

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4. The Edith Stevens wetland park is under threat. People want to build flats and shops on the wetland. Write down reasons why wetlands are important and should not be built upon. (3x1)

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5. Your friend wants to clean a bucket of muddy water so that it is clear. Recommend the method he should use and motivate your recommendation. (3x1)

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