

INTERMEDIATE PHASE

GRADE 5

**NATURAL SCIENCES AND TECHNOLOGY
STANDARD TEST
SEPTEMBER 2021**

Learners name: _____
Class: _____ Date: _____
Teacher: _____

Test	Mark	%
NS and Technology		
	Total: 40	100%

THIS TEST CONSISTS OF 8 PAGES, INCLUDING THE COVER PAGE

Instructions:

1. Write neatly.
2. Make sure your name is on the question paper.
3. Read the question carefully and answer all the questions.
4. No talking will be allowed during the test.

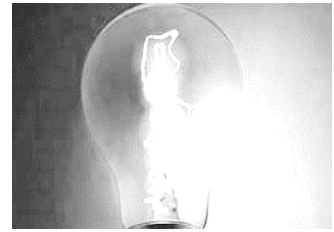
Question 1: Multiple choice

Circle the letter corresponding to the correct answer

- 1.1. is the source of energy for our bodies
 - a) Animals
 - b) Food
 - c) Petrol
 - d) Diesel
- 1.2. When plants grow, they need energy from the
 - a) Soil
 - b) Water
 - c) Moon
 - d) Sun
- 1.3. Energy is stored in food, wood, coal, oil and
 - a) Bottles
 - b) Natural gas
 - c) Pots
 - d) Spray
- 1.4. Energy from food helps us to
 - a) Move
 - b) Do work
 - c) Stay alive
 - d) All of the above

1.5. Two types of energy produced when a lightbulb shine are

- a) Heat and light
- b) Electrical and potential
- c) Sound and elastic
- d) Potential and kinetic



1.6. An example of a fossil fuel is ...

- a) Water
- b) Sun
- c) Coal
- d) Wind

1.7. Which of these objects does not use a spring?

- a) Catapult
- b) Car
- c) Peg
- d) Garage door

1.8. Which of these is NOT a form of energy?

- a) Cooking energy
- b) Movement energy
- c) Light energy
- d) Heat energy

1.9. When you say or predict what you think will happen in an investigation we call it the_____

- a) Aim
- b) Hypothesis
- c) Method
- d) Conclusion

[1x9=9]

Question 2: True or false

2.1. Oxygen is needed to keep a fire burning. _____ (1)

2.2. We cannot see the effects of energy around us. _____ (1)

2.3. A food chain shows the transfer of food. _____ (1)

[3]

Question 3: Energy and Energy transfer

A food chain shows the transfer of energy. In the box below draw a food chain with three links in it. Remember to show the energy transfer.



[3]

Question 4: Stored energy in fuels

You burned 3 candles and put different size glass jugs over 2 of them. The purpose of this investigation is to establish which candle will burn the longest.



A



B



C

4.1. Which candle will burn the longest? _____ (1)

4.2. Which candle will burn the shortest? _____ (1)

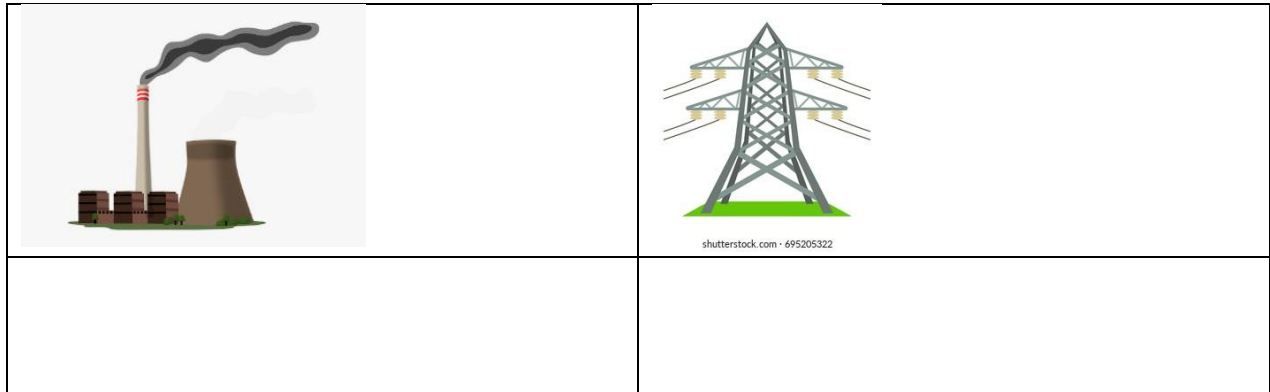
4.3. Explain your answers.

_____ (2)

[4]

Question 5: Energy and electricity

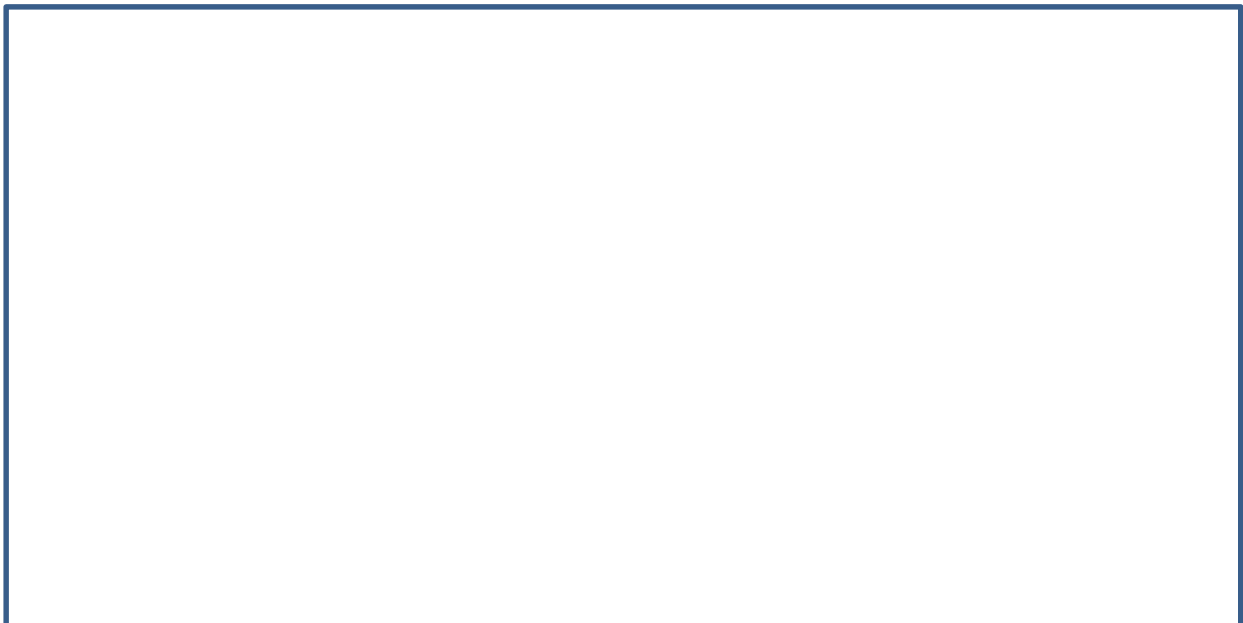
5.1 Electricity from power stations is transferred to circuits in our homes. Label the pictures below using these words to help you: pylon, transformer, substation, power station, wall socket.



(2)

5.2 In the block below draw a circuit diagram that has the following components: a cell, a light bulb, connecting wire and an open switch.

(4)



5.2.1. Will the lightbulb shine? Why?

_____ (2)

5.2.2. What is the function of the connecting wires?

_____ (1)

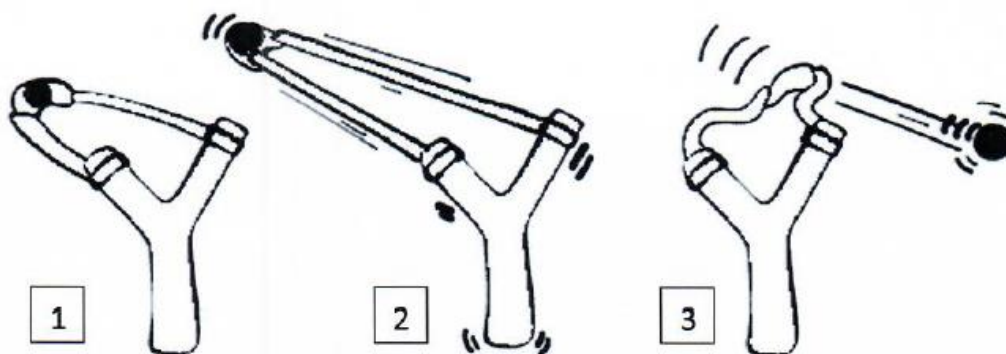
5.2.3. List the three main components of an electrical circuit.

_____ (3)

[12]

Question 6: Energy and movement

Look at the image below and complete the questions that follow.



6.1. In which picture does the elastic have the most stored energy? _____ (1)

6.2. Complete the sentences below:

a) The elastic band has energy when we _____ it. (1)

b) The energy was _____ when we let the elastic band go. (1)

[3]

Question 7: Energy and electricity

Look at the picture on the right.



7.1 Write down 2 safety dangers that you notice in the picture.

(2)

Question 8: Stored energy in fuels

Read the case study below and answer the questions that follow

Candle burns down home.

On 3 April 2004 a Durban family woke to find that their house was alight. Their 12-year-old son had come back from a school function after 9pm to find his bedroom light bulb had blown. He lit a candle to prepare for bed and then fell asleep. Somehow, the candle started the fire, and the heat woke up the family.



8.1. What was the cause of the fire?

_____ (1)

8.2. How could the fire have been prevented?

_____ (1)

8.3. Name 2 other ways that fires can start.

_____ (2)

[4]

TOTAL = 40