<u>Natural Science and Technology</u>

Grade 4 – Term 2 2019

Assessment Task 2 – Examination

Subject: NS & Technology

Specific Aims: 1 & 2

Examinator: L. Opperman

Moderator: M. du Preez

Duration: 60 min

Date: 23 May 2019

| Name and S | urname: | Memo | | |
|-----------------|---------|------|--------|--|
| <u>Grade:</u> 4 | | | | |
| Date: | | - | | |
| Total: | /40 = | % | Scale: | |

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:

- Answer ALL the questions.
- Write neatly and presentable.
- Use a blue or a black pen.

Choose the correct word from those given and $\underline{\text{circle your answer:}}$

| | | hings look different, they all carry out seven similar life of part of the seven life process | processes. One |
|---------|----------------|---|----------------|
| | Α. | Movement | |
| | В. | Sensing | |
| | C. | Shelter | |
| | D. | Feeding | [1] |
| 1.2 Wł | nen growing ye | east water is used. | |
| | A. | Cold | |
| | В. | Boiling water | |
| | C. | Luke warm | |
| | D. | Frozen | [1] |
| 1.3 A _ | | structure gives support: | |
| | A. | Shell | |
| | B. | Frame | |
| | C. | Wall | |
| | D. | Basket | [1] |
| 1.4 A _ | | shape does not change easily. | |
| | A. | Liquids | |
| | B. | Solids | |
| | C. | Gas | |
| | D. | None of the above | [1] |
| 1.5 | Which one of | f the following is not a property of glass? | |
| | Α. | Waterproof | |
| | В. | Heat resistant | |
| | C. | Flexible | |
| | D. | Transparent | [1] |

| 1.6 | Which of the | following do not show a life process? | |
|---------------|----------------|--|-----|
| | Α. | Cow | |
| | B. | Dead branch | |
| | C. | Egg | |
| | D. | Dog | [1] |
| 1.7 to the | | not living, but they became alive when the correct conditions are ad | ded |
| | Α. | Water (moisture) | |
| | В. | Warmth | |
| | C. | Air | |
| | D. | All of the above | [1] |
| 1.8 | Roots of plan | ts | |
| | A. | hold the plant in the soil, absorbs water, mineral and salts. | |
| | В. | keeps the plant upright, hold the plant in soil. | |
| | C. | uses sunlight to make food for the plant. | |
| | D. | helps to keep the leaves green and healthy. | [1] |
| 1.9 | The scientific | name where animals make their homes is called | |
| | Α. | Ecosystem | |
| | B. | Habitat | |
| | C. | Their homes | |
| | D. | Palace | [1] |
| 1.10 | Predators are | e animals that | |
| | A. | eat grass and meat | |
| | В. | catches only fish and eats them | |
| | C. | eat meat, seeds and plants | |
| | D. | catches and eats other animals | [1] |
| | | | |

[7]

[3]

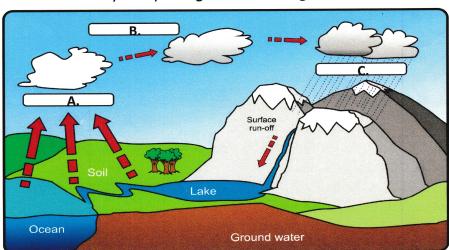
QUESTION 2: (True or False)

State whether the following statements are true or false:

| Statements | True / | False |
|--|--------|-------|
| 2.1. Freezing is the process when a liquid changes to a solid through cooling. | True | V |
| 2.2. Plants need light, water, air and soil to grow. | True | |
| 2.3. Gases have no definite shape and take up all space available. | True | |
| 2.4. When solid change to liquid the process is called condensing. | False | V |
| 2.5. Materials can be in three (3) states: e.g. Solid, Liquid and Gas. | True | ~ |
| 2.6. A glass jug is a material that is flexible. | False | |
| 2.7. A newspaper is a material that is waterproof. | False | |

QUESTION 3 [7]

3.1 Complete the water cycle by filling in the missing words.



| A: | Evaporation | |
|--------|---------------|--|
| В: | Condensation | |
| C: | Precipitation | |

| Water as a liquid heats up through the sun and |
|--|
| evaporates. As the evaporated water rises it cools down through conclensation. The conclensed water vapour collect |
| and form clouds through precipitation (rain, snow [4] or then falls back to the earth. Starting all over a QUESTION 4 |
| The seed in container A received air, warmth and sun, but no water. The seed in container B received air, warmth, water and sun light |
| 4.1 Did the seed in container A grow? Explain why. No because it did not get water [2] 4.2 Did the seed in container B grow? Explain why. |
| yes because it got warmth, water, air and sun light. [2] |

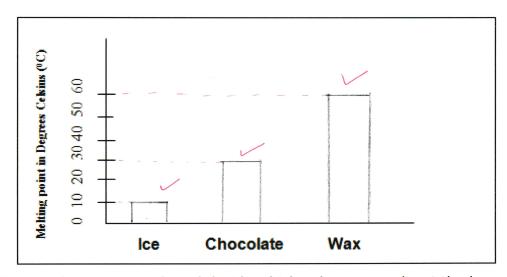
Use the water cycle to explain in your own words how rain is formed.

3.2

The table below shows the melting temperature of different substances.

| Substance | Melting point in degrees Celsius (°C) |
|-----------|---------------------------------------|
| Ice | 10 |
| Chocolate | 30 |
| Wax | 60 |

5.1 Use the information listed in the table and <u>draw a bar graph</u> showing the different melting temperatures for these substances. [3]



5.2 Look at your graph and decide which substance melts at the <u>lowest</u> temperature.

Ice [1]

5.3 Look at your graph and decide which substance melts at the <u>highest</u> temperature.

Wax - [1]

5.4 What is the name of the process when solid wax turns into a liquid?

Melting [1]

Study the following pictures and answer the questions that follow.

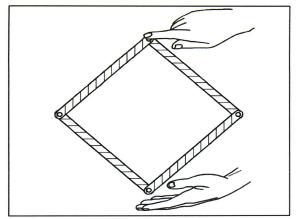


Figure A: Square shape

Figure B: Triangle shape

Which shape will lose its shape when you press on the corner? 7.1

Figure A / Square [1] Suggest two ways how we can strengthen the shape? (any two) 7.2 Reinforce Struts VV
Triangulation [2]

Which shape do you think is the strongest and why? 7.3

Which shape do you think is the strongest and with.

Strangest shape

Figure B because it is in the shape of

Support [2]

Draw on Figure A below how you will reinforce the square. Stabiliza t[1] 7.4

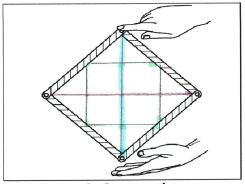


Figure A: Square shape

TOTAL = 40