



**TOM NEWBY SCHOOL
JUNE 2021**



Subject	Natural Science & Technology	Examiner	Mrs P Singh
Date	June 2021	Total marks	60
Grade	6	Duration	1 Hour 15 mins
		Moderator	Mrs M Fourie
Special instructions/ Equipment	NONE		
This assessment has been compiled using notes and information contained in the Tom Newby School resource material. The marking memorandum has been compiled accordingly. While alternative responses will be given due acknowledgement, the official memorandum will be considered a priority document to ensure uniformity of marking.			

Instructions:

1. Read all questions carefully before answering.
2. Check the mark allocation.
3. Write neatly and legibly.

Name:	Surname:	Grade:
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Section A: Life and Living

Question 1: Photosynthesis (5)

Multiple Choice: Underline the correct answer.

- 1.1 The process by which plants make their own food is called _____.
- a. respiration
 - b. photosynthesis
 - c. glucose
 - d. precipitation

1.2 The meaning of the word "Photosynthesis" is _____

- a. the use of air to make food.
- b. the use of chlorophyll to make food
- c. the use of light to put things together
- d. the use of light to take photos

1.3 Chlorophyll captures _____ during photosynthesis.

- a. sunlight energy
- b. oxygen
- c. carbon dioxide
- d. sugars

1.4 During photosynthesis hydrogen is used with carbon dioxide to make _____.

- a. starch
- b. oxygen
- c. calcium
- d. glucose

1.5 The solution used to test for starch is called _____.

- a. bromine
- b. iodine
- c. saline
- d. chlorine

Question 2: (5)

State whether the following Statements are **True** or **False**. If False, correct the statement.

2.1 An example of a stem that can store starch is maize.

_____ (1)

2.2 Sunlight energy splits the water into hydrogen and oxygen during photosynthesis.

_____ (1)

2.3 Respiration occurs only in light conditions.

_____ (1)

2.4 Carbon dioxide is a harmless gas that, in large quantities, can kill human beings.

_____ (1)

2.5 A brown solution is used to test for starch.

_____ (1)

Question 3: Nutrition (10)

Match the word/phrase in **Column B** with the word in **Column A**. Write down only the correct letter in the space provided.

Column A	Column B
3.1 Fats and oils	A. helps fight infections because they contain Vitamin C
3.2 Avocado pears	B. people have to inject themselves with insulin in order to keep their blood sugar levels correct.
3.3 Oranges	C. helps make red blood cells
3.4 Vitamin E	D. is the part of plant food that you cannot digest
3.5 Iron	E. contains very little protein and lots of additives
3.6 Tartrazine	F. used for storing energy and insulation
3.7 Fibre	G. another name for high blood pressure
3.8 Diabetes	H. protects the skin
3.9 Junk food	I. is a yellow colourant
3.10 Hypertension	J. contain healthy oils and fats

3.1	3.2	3.3	3.4	3.5
3.6	3.7	3.8	3.9	3.10

Question 4: Food Processing (5)

Provide one word to explain each statement given in column one.

Statements	Word
4.1 Process when water is removed from food.	
4.2 Method of food processing that uses yeast.	
4.3 The mixing together of two or more ingredients.	
4.4 Process of preserving food in salt water or vinegar.	
4.5 Indian relish that is made with green mangoes and chillies.	

Question 5: Ecosystems and Food Webs (5)

5.1 Provide a good definition for the term "ecosystem".

_____ (1)

5.2 Explain what role producers play in a food web.

_____ (2)

5.3 Provide an example of a producer.

_____ (1)

5.4 What is a food web made up of?

_____ (1)

Section B: Matter and Materials
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Question 6: Mixtures (4)

Choose an appropriate method from the word box that you would use to separate the mixtures listed.

Sorting by hand	Using a sieve	Settling and decanting	Filtering
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6.1 Oil and water - _____ (1)

6.2 Sugar and tea leaves - _____ (1)

6.3 Sand and water - _____ (1)

6.4 Beans and peanuts - _____ (1)

Question 7: Solids, Liquids and Gases (4)

Compare the shape and particles in Solids, Liquids and Gases.

	Shape of Particles	Arrangement of Particles
Solids	7.1	7.2
Liquids	7.3	Particles can move around each other.
Gases	Has no fixed shape. Fills the available space around it.	7.4

Question 8: Solutions as special mixtures (12)

8.1 Compare the mixture of sugar and water with the mixture of oil and water by looking at the images below and completing the table.



Sugar and water



Oil and water

Mixtures	State whether the substances are a solid, liquid or gas	Is the sugar and oil soluble/ insoluble in water?	Is the mixture a solution? Yes or No
Sugar and water	a. _____(1) and b. _____(1)	c. _____ (1)	d. Is the sugar and water a solution? _____ (1)
Oil and water	e. _____(1) and f. _____(1)	g. _____ (1)	h. Is the oil and water a solution? _____ (1)

8.2 Provide 2 factors that could affect the rate of dissolving.

(2)

8.3 Explain how you can destroy germs that may be in water, to make the water clean.

(2)

Question 9: Water Pollution (10)



Analyse the image above and answer the following questions:

9.1 How can you prevent water pollution? Name 3 things that you could do.

a. _____
 _____ (1)

b. _____
 _____ (1)

c. _____
 _____ (1)

9.2 The boy in the picture is trying to catch a fish. What do you think he should rather be doing?

(2)

9.3 When can a river become a cycle of infection?

(3)

9.4 What happens to people who become infected from drinking polluted water?

(2)

TOTAL : 60

Grade 6 Natural Science & Technology June Exam 2021
Performance Analysis
 (For teacher use only)

Name of learner: _____ Grade 6: _____

Question Number	1	2	3	4	5	6	7
Possible Mark	5	5	10	5	5	4	4
Learner's Mark							
Moderator's Mark							

Question Number	8	9
Possible Mark	12	10
Learner's Mark		
Moderator's Mark		