



TOM NEWBY SCHOOL
GRADE 6 NS/ TECH
JUNE 2022



Subject	Natural Science & Technology	Examiner	Mrs P Singh & Miss L Barnes
Date	June 2022	Total marks	60
Grade	6	Duration	1 Hour
		Moderator	Mrs M Fourie
Special instructions/ Equipment	<u>Instructions:</u> 1. Read all questions carefully before answering. 2. Check the mark allocation. 3. Write neatly and legibly.		
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.			

Name:	Surname:	Grade:
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SECTION A: LIFE AND LIVING

QUESTION 1: Photosynthesis (5)

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

1.1 Respiration is the process by which plants make their own food.

_____ (1)

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

_____ (1)

1.3 Chlorine gives the leaves and other parts of the plant their green colour.

_____ (1)

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

(1)

1.5 A cabbage is an example of a leaf where starch can be stored.

(1)

QUESTION 2: Nutrients (5)

Multiple Choice: Underline the correct answer.

2.1 Which food helps to provide energy.

- a. meat
- b. eggs
- c. potatoes
- d. carrots

2.2 Fish is food for growth and repair because it contains.....

- a. carbohydrates
- b. protein
- c. fats and oil
- d. vitamins and minerals

2.3 The function of vitamin E is to _____.

- a. help fight infections
- b. make teeth and bones strong
- c. help stop bleeding
- d. help protect the skin

2.4 Which food group forms protective layers inside the body, to protect the organs.

- a. fats and oils
- b. proteins
- c. vitamins and minerals
- d. carbohydrates

2.5 There are 2 types of carbohydrates

- a. honey and dried fruit
- b. sugars and starch
- c. starch and oil
- d. pasta and bread

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 Obesity	A. eating a lot of sugary food can cause this condition.
3.2 Monosodium Glutamate	B. people have to inject themselves with insulin in order to keep their blood sugar levels correct.
3.3 Colourants	C. a savoury flavourant.
3.4 Tooth decay	D. prevents you from suffering from constipation.
3.5 Fast food	E. gives you energy but does not feed your body well.
3.6 Tartrazine	F. caused by eating too much food high in sugars and fat.
3.7 Fibre	G. another name for high blood pressure.
3.8 Diabetes	H. makes food look appetising.
3.9 Junk food	I. is a yellow colourant.
3.10 Hypertension	J. is quickly prepared and highly processed.

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)

Read the statements below and give one word to explain it.

Statements	Answers
4.1 The process of turning raw plant and animal materials into food products.	
4.2 Foods that have had vitamins and minerals added to them to raise or restore their nutrient content.	
4.3 Involves processes such as shelling, peeling, slicing or chopping.	
4.4 Process of heating milk to make it last longer.	
4.5 Cook by dry heat in an oven.	

QUESTION 5: Ecosystems and Food Webs (10)

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

_____ (1)

5.2 List 2 different types of Ecosystems.

_____ (2)

5.3 Explain what a food web is.

_____ (1)

5.4 Name the 3 things that are found in a food web and write down what each one does for the food web?

1. _____ - _____ (2)

2. _____ - _____ (2)

3. _____ - _____ (2)

SECTION B: MATTER AND MATERIALS

QUESTION 6: Solids, Liquids and Gases (6)

Compare Solids, liquids and gases by drawing the arrangement of particles in the 2nd column and then by writing down how particles are able to move in the 3rd column.

	Drawing of Particles	Movement of Particles
Solids	6.1	6.2
Liquids	6.3	6.4
Gases	6.5	6.6

QUESTION 7: Mixtures (4)

Choose one of the methods from the word box that you would use to separate the mixtures below.

Sorting by hand	Using a sieve	Settling and decanting	Filtering
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7.1 Peanuts and raisins - _____ (1)

7.2 Sand and water - _____ (1)

7.3 Salt and coffee beans - _____ (1)

7.4 Water and oil - _____ (1)

QUESTION 8: Solutions as special mixtures (5)



Over millions of years, salt from the land has washed into the sea. Hence sea water tastes salty.

8.1 What is the solvent in this situation?

_____ (1)

8.2 What is the solute ?

_____ (1)

8.3 What is the solution?

_____ (1)

8.4 Explain the difference between dissolving and melting.

_____ (2)

QUESTION 9: Mixtures and Water Resources (10)

Read the passage on Kosi Bay System and then answer the questions that follow:

Kosi Bay System

The Kosi Bay System is on the north coast of KwaZulu-Natal, just below the border of Mozambique. It comprises of over 16 different wetland systems, made up of four lakes which are linked, mangrove forests, salt marshes, mud flats and shallow marine waters with coral reefs. It is the only place in South Africa where five types of mangrove trees grow. These are the black, red, white, grey and yellow mangrove trees. In these forests you will find fiddler crabs, red mangrove crabs and mud skippers.

It is the only place where there is naturally occurring Raffia Palm Forest. The Palm Nut Vulture can be seen here. Other bird species which occur here include the rare Pel Fishing Owl. Crocodiles and Hippos are found in the lakes. Both Loggerhead and Leatherback sea turtles lay their eggs on the beaches.

Kosi Bay is home to the Tonga tribe. Traditionally they used the lakes for fishing. They have a unique, sustainable fishing method, which catches mature fish as they leave the lake system and head back into the sea. The small fish are small enough to escape through the gaps between the reeds so they can grow into mature fish. The reeds that grow around the lake system are used to build houses and make mats and blankets.

blankets.

9.1 What is a wetland?

(1)

9.2 Name 2 bird species that can be seen in the Kosi Bay System.

(2)

9.3 Explain how wetlands control floods?

(3)

9.4 How have the Tonga tribe used the resources available to them?

(2)

9.5 Explain how wetlands clean polluted water? Name 2 ways.

(2)

9.6 If you were part of the Tonga tribe what would you make with the reeds that grow around the lake? Do not mention any of the items mentioned in the passage?

(1)

TOTAL – 60

PERFORMANCE ANALYSIS
GRADE 6 NS /TECH JUNE TEST 2022
 (For teacher use only)

Section A:	1	2	3	4	5
Question Number					
Possible Mark	5	5	10	5	10
Learner Mark					
Moderator Mark					

Section B:	6	7	8	9
Question Number				
Possible Mark	6	4	5	10
Learner Mark				
Moderator Mark				