



TOM NEWBY SCHOOL
GRADE 7 TECHNOLOGY JUNE 2022



Subject	Technology	Examiner	Mrs M. Fourie
Date	June 2022	Total marks	60
Session		Duration	1 hour 15 min
Grade	7	Moderator	Miss M. Mpesu
Special instructions/ Equipment	1. Write neatly and eligibly. 2. Use a pencil and colouring in pencils for your drawing. 3. Answer all questions. 4. Good luck. Don't ink before you think!		
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:	Class:
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SECTION A: TECHNOLOGICAL KNOWLEDGE AND UNDERSTANDING [18]

QUESTION 1: Multiple choice (6)

Read each statement and write the letter that represents the most correct answer that you have chosen on the answer grid on page 2.

1.1 In a second class lever the _____

- the fulcrum is always on the left hand side of the lever.
- the load is in the middle of the fulcrum and the effort, e.g. a paper cutter.
- there is no fulcrum, only the effort and the load.

1.2 When we write a design brief, we _____

- write a short statement that describes a need or problem.
- write things that limit our choices.
- meet people's needs and wants.

1.3 Outlines are _____

- Thick and dark, and they indicate parts of a drawing visible from the outside.
- light-coloured , continuous lines that help to construct other lines.
- Hidden detail lines showing the parts of a drawing that is out of sight.

1.4 The measurements used in a scale drawing are_____

- a) km
- b) m
- c) mm

1.5 A shell structure is a _____ structure that can carry a load.

- a) triangular
- b) hollow
- c) dense

1.6 A skeleton is an example of a _____ structure

- a) solid
- b) shell
- c) frame

1.1	1.2	1.3	1.4	1.5	1.6

QUESTION 2: Match the columns (5)

Match the statement in Column A with the answer in Column B. Write the letter of the answer that you have chosen on the answer grid.

COLUMN A	COLUMN B
2.1 A person who is well-trained and whose job involves research	A Ergonomics
2.2 How easy or comfortable something is to use.	B Carved wooden artefacts
2.3 They span or reach across a distance	C Artisan
2.4 A solid structure	D Dimensions
2.5 The height, width and length of an object	E Cranes
	F Scientist

Answer Grid

2.1	2.2	2.3	2.4	2.5
_____	_____	_____	_____	_____

QUESTION 3: Identify and name images (7)

3.1 Look at the images below. Write down the name of each image. Then, identify whether it is a shell, a frame or a solid structure. Write your answers on the table provided. (4)



IMAGE A



IMAGE B



IMAGE C



IMAGE D

	Name of image	Shell, Frame or Solid structure
IMAGE A		
IMAGE B		
IMAGE C		
IMAGE D		

3.2 A structure is something that is _____, made or put together. A structure should be stable and strong and able to support heavy loads. (1)

3.3 Study the pictures below and identify the class of lever that each one represents. (2)

IMAGE A	IMAGE B



SECTION B: DESIGN PROCESS, SKILLS AND GRAPHIC COMMUNICATION (30)

QUESTION 4: Read the scenario and complete the following questions: **(9)**

Scenario:

During our holiday seasons, many South Africans travel on our major highways to holiday destinations. They set off excited and enthusiastic about a few days of holiday and rest. Sadly, because of the number of vehicles on the road, accidents happen. Sometimes, people are trapped in a car and need help to get out. A useful machine that helps to rescue passengers from a car, is called a Jaws-of-life system.



4.1. What are the negative impacts on South African roads during holiday seasons?

_____ (2)

4.2 List **TWO** positive impacts that a Jaws-of -life system can have.

4.2.1 _____ (1)

4.2.2 _____ (1)

4.3 Who are the people that can assist trapped passengers at an accident scene?

4.3.1 _____ (1)

4.3.2 _____ (1)

4.4 What does Pneumatics mean? Give one example of where it is used.

Meaning:

_____ (1)

Example:

_____ (1)

4. 5 Where can hydraulics be used?

 _____ (1)

QUESTION 5:

Write a design brief for a cell phone tower that is disguised as something else by completing the information/answering the questions listed below: **(11)**

5.1 I am designing a cell phone tower that looks like a

 _____ (2)

5.2 Name **THREE** materials I can use in my design.

(3)

5.3 Name **TWO** tools I can use in my design.

 _____ (2)

5.4 Name **TWO** specifications in my design.

 _____ (2)

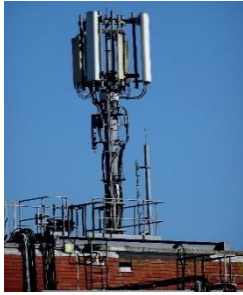
5.5 Name **TWO** constraints in my design.

 _____ (2)

SCENARIO (Images on page 6)

Technology has changed the world we live in. We can do things now we could not do in the past. Fifty years ago there were no cell phone towers. Now there are cell phone towers scattered everywhere across the country.

A cell phone company called Mobi C is planning to put up a tower near your school. The company has asked you to prepare a design for a cell phone tower that is disguised as something else. Your design must be for a tower that impacts as little as possible on the environment and surroundings near your school. It must blend in and not visually pollute the area.



QUESTION 6: Draw a 2D view of a cell phone tower in the space provided below and indicate which view you have drawn. Also label your drawing and add measurements and an interesting heading. Use the rubric to guide you.

RUBRIC: CRITERIA	Possible mark	Mark obtained
Used grey pencil for the drawing and wrote an interesting heading.	2	
"Front, side or top" view shown.	1	
Used different types of lines in sketch.	3	
Added materials, tools and measurements.	4	
Total:	10	

SECTION C: TECHNOLOGY, SOCIETY AND THE ENVIRONMENT (12)**QUESTION 7:**

Read the questions and provide suitable answers.

(12)

7.1. Name **ONE** cellular network found in South Africa today.

_____ (1)

7.2. Name **THREE** applications (apps) on a cell phone.

_____ (3)

7.3. How would you use a South African number to make or receive a call from overseas?
Explain.

_____ (2)

7.4 Give **TWO** advantages of using landline phones

a) _____ (1)

b) _____ (1)

7.5 Give **THREE** disadvantages of using a cell phone.

a) _____ (1)

b) _____ (1)

c) _____ (1)

7.6. Name **ONE** cell phone brand.

_____ (1)

Total: 60/ 2= 30

PERFORMANCE ANALYSIS
GRADE 7 TECHNOLOGY JUNE 2022

Name: _____ Surname: _____ Grade7: _____

SECTION	SPECIFIC AIM	POSSIBLE MARK	ACTUAL MARK	MARK OUT OF 60/2 =30
A	TECHNOLOGICAL KNOWLEDGE AND UNDERSTANDING	18/2 =9		
B	DESIGN PROCESS SKILLS & GRAPHIC COMMUNICATION	30/2 =15		
C	TECHNOLOGY, SOCIETY AND THE ENVIRONMENT	12/2 = 6		
TOTAL		60/2 =30		