

TERM THREE
WEEKLY LESSON NOTES
WEEK 3

Week Ending: 30 th SEPT, 2022		DAY:	Subject: Mathematics
Duration: 50mins		Strand: Geometry & Measurement	
Class: B7	Class Size:	Sub Strand: Measurement	
Content Standard: B.7.3.2.1 Demonstrate the ability to find the perimeter of plane shapes including circles using the concept of pi (π) to find the circumference of a circle		Indicator: B7.3.2.1.2 Use the relationships between the diameter and the circumference to deduce the formula for finding the circumference of a circle and use it to solve problems.	Lesson: 1 of 2
Performance Indicator: Learners can explain the relationships between the diameter and the circumference.		Core Competencies: Communication and Collaboration (CC) Critical Thinking and Problem solving (CP)	
References: Mathematics Curriculum Pg. 60-63			
Phase/Duration	Learners Activities	Resources	
PHASE 1: STARTER	<p>Ask pupils to name some round objects they know of (e.g. wheels, clock face, surface of milk cup, drum, ball, cylinder mouth).</p> <p>Ask a learner to come to the board and draw a circle and conclude that all round objects are called circular objects.</p> <p>Share performance indicators and introduce the lesson</p>		
PHASE 2: NEW LEARNING	<p>Paste a picture of a well labelled circle on the board.</p> <p>Call out the names of the parts and ask learners to repeat them several times.</p> <p>Explain each part to the learners:</p> <ol style="list-style-type: none"> Centre is the point in the middle of the circle. Circumference is the distance around the circle. Radius is the distance from the centre to the circumference. Diameter is the distance across the circle, passing through the centre. <p>Draw another circle on the board and label the diameter and two radii, as in the diagram.</p> <ul style="list-style-type: none"> What relationship can you observe between the radius and diameter of a circle? <p>Allow learners to share their ideas e.g. diameter is longer than radius; radius touches the circumference at one point only, but diameter touches the circumference at two points.</p> <p>Discuss with learners that the radius is half of the diameter, and the diameter is twice the radius.</p>	Empty cans, tyres, bowls ball, cylinder mouth	

In groups, learners measure the radius, diameter and circumference of circular objects like base or cross section of cylindrical objects like cans, tyres, bowls, etc., roundabouts, etc. and describe the measuring tools used.

Learners demonstrate to explain the relationship between the diameter and circumference of a circle by:

- i. Recording the measured diameter and circumference of various circles;
- ii. Completing the table for the measured values; and
- iii. Observing the results of $c \div d$.

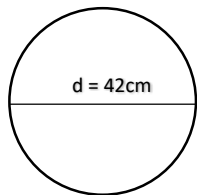
Circle	Circumference(c)	Diameter(d)	$c \div d$
A	13	4	13/4
B	38	12	38/12

Conclude that the result of $c \div d$ or the ratio of the circumference of a circle to its diameter is named π (and pronounced pi).

Assessment

Draw a circle and label its parts.

Find the radius and diameter for the two circles



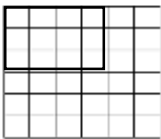

**PHASE 3:
REFLECTION**

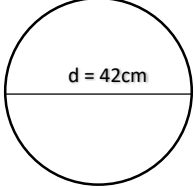
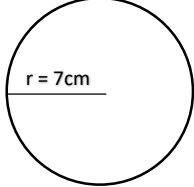
Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.

Take feedback from learners and summarize the lesson.

Homework

Learners to read more on the internet about the pi – who discovered it, and its value.

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Content Standard: B.7.3.2.1 Demonstrate the ability to find the perimeter of plane shapes including circles using the concept of pi (π) to find the circumference of a circle		Indicator: B7.3.2.1.3 Draw in a square grid rectangles and triangles with given dimensions
		Lesson: 2 of 2
Performance Indicator: Learners can draw in a square grid rectangles and triangles with given dimensions		Core Competencies: Communication and Collaboration (CC) Critical Thinking and Problem solving (CP)
References: Mathematics Curriculum Pg. 60-63		
Phase/Duration	Learners Activities	Resources
PHASE 1: STARTER	<p>Draw a circle on the board. Ask learners to come up to identify the following: circumference, centre, diameter, and radius.</p> <p>Share performance indicators and introduce the lesson</p>	
PHASE 2: NEW LEARNING	<p>Use the relationship between the diameter and circumference of a circle to solve problems. Example: i. The radius of a circle is 7 cm. What is the (a) diameter (b) circumference? [Take $\pi = 22/7$]</p> <p>(a) $d = 2r = (2 \times 7\text{cm}) = 14\text{cm}$ (b) $C = \pi d = (22/7 \times 14\text{cm}) = 44\text{cm}$</p> <p>Draw a square grid on the board and draw a rectangle in the grid as shown in the diagram below.</p>  <p>Task learners to draw another rectangle whose area is twice as large as the one drawn on the grid. Go round and help those with difficulties.</p> <p>Let learners draw another rectangle which is twice as wide as and one and a half times as long as the one in the grid.</p> <p>Make a dot grid on the board and draw a triangle in the grid as shown below.</p> 	Empty chalk boxes, tins, cut out shapes from cards.

	<p>Task learners to draw in the dot square grid another triangle whose area is 3 square units.</p> <ul style="list-style-type: none"> • What is the area of the triangle in the square grid? • How many different triangles of the same area as the one in the grid can you draw? <p><u>Assessment</u> Find the circumference of the circles below and round your answer to the nearest tenth [take $\pi = 3.142$]:</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>$d = 42\text{cm}$</p> </div> <div style="text-align: center;">  <p>$r = 7\text{cm}$</p> </div> </div>	
<p>PHASE 3: REFLECTION</p>	<p>Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.</p> <p>Take feedback from learners and summarize the lesson.</p>	

