

**TERM THREE**  
**WEEKLY LESSON NOTES**  
**WEEK 4**

<b>Week Ending:</b> 7 <sup>th</sup> OCT, 2022	<b>DAY:</b>	<b>Subject:</b> Science
<b>Duration:</b> 100mins		<b>Strand:</b> Forces & Energy
<b>Class:</b> B7	<b>Class Size:</b>	<b>Sub Strand:</b> Force & Motion
<b>Content Standard:</b> B7.4.4.1 Examine the concept of motion, Newton's first law of motion, magnetic force in relation to motion and understand their applications to life		<b>Indicator:</b> B7.4.4.1.3 Examine the application of Newton's First Law of motion in life.
		<b>Lesson:</b> 1 of 2
<b>Performance Indicator:</b> Learners can describe the application of Newton's First Law of motion in life		<b>Core Competencies:</b> DL 5.3: CI 6.8: DL 5.1: CI 6.6:
<b>References:</b> Science Curriculum Pg. 33-34		
<b>New words:</b> newton, inertia, motion		
<b>Phase/Duration</b>	<b>Learners Activities</b>	<b>Resources</b>
<b>PHASE 1: STARTER</b>	Revise with learners on the previous lesson.  Share learning indicators and introduce the lesson.	
<b>PHASE 2: NEW LEARNING</b>	<p>Pick a ball and perform these activities;</p> <ol style="list-style-type: none"> <li>Place the ball at a stationary position on the teachers table.</li> <li>Roll the ball on the ground from end to end of the class</li> </ol> <p>Let learners write down their observations for discussion.</p> <p>Guide learners to state Newton's first law of motion. <i>Newton's First Law of motion states that an object at rest will stay at rest, and an object in motion will continues in a uniform motion in a straight line unless it is acted upon by some external force to act otherwise.</i></p> <p>It is also called the law of inertia.</p> <p>In groups, learners discuss the types of inertia.</p> <ul style="list-style-type: none"> <li>Inertia of rest: An object stays where it is placed, and it will stay there until you or something else moves it</li> <li>Inertia of motion: An object will continue at the same speed until a force act on it.</li> <li>Inertia of direction: An object will stay moving in the same direction unless a force acts on it.</li> </ul> <p>Guide learners to demonstrate Newton's first law of motion. A book kept on a table remains placed at its place unless it is displaced. Similarly, a ball rolling on a horizontal surface keeps on running unless an external force stops it.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>With no external force this ball will never move</p> </div> <div style="text-align: center;">  <p>With no external force the ball will never stop</p> </div> </div>	Batteries Torch Switch Radio, Charts and drawings showing energy conversion

	<p>In groups, learners research the occurrence of things around us using Newton’s first law of motion.</p> <p>Example:</p> <ul style="list-style-type: none"> <li>• Car air bags: The function of the air bag is to inflate in an accident and prevent the driver’s head from hitting the windshield.</li> <li>• The motion a ball through the atmosphere or a model rocket launched into the atmosphere</li> </ul> <p>Guide learners to discuss some applications of Newton’s First Law of Motion.</p> <p>E.g. when a metallic ball is put on a smooth surface and given a push it will be in motion until it gets to a blockade and it stops.</p> <p>Use of seat belts in a vehicle, etc.</p> <p>Explain the importance of Newton’s First Law of Motion</p> <p><u>Assessment</u></p> <p>1. Newton’s first law of motion states than an object’s motion will not change unless.</p> <p>A. a force continues to be applied to the object.  B. its inertia is stronger than the applied force.  C. the net force acting on it is greater than zero.  D. the object has no inertia.</p> <p>2. Overcoming an object’s inertia always requires a /an.</p> <p>A. large mass  B. massive force  C. two of the above  D. unbalanced force</p> <p>3. It is more difficult to start a 50kg box sliding across the floor than a 5-kg box because the 50- kg box has greater.</p> <p>A. inertia B. size C. velocity D. volume</p>	
<p><b>PHASE 3: REFLECTION</b></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> <p><u>Homework</u></p> <p>Learners research the occurrence of some of the things around us using Newton’s first law of motion.</p>	

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<b>Class:</b> B7	<b>Class Size:</b>	<b>Sub Strand:</b>
<b>Content Standard:</b> B7.4.4.1 Examine the concept of motion, Newton's first law of motion, magnetic force in relation to motion and understand their applications to life.	<b>Indicator:</b> B7.4.4.1.4 Demonstrate the behavior of magnet and its use to life.	<b>Lesson:</b> 1 of 2
<b>Performance Indicator:</b> Learners can demonstrate the behavior of magnet and its use to life		<b>Core Competencies:</b> DL 5.3: CI 6.8: DL 5.1: CI 6.6:
<b>References:</b> Science Curriculum Pg. 33-34		

Phase/Duration	Learners Activities	Resources
<b>PHASE 1: STARTER</b>	<p>Using questions and answers, review learners understanding in the previous lesson.</p> <p>Share learning indicators and introduce the lesson.</p>	
<b>PHASE 2: NEW LEARNING</b>	<p>Bring to class a real magnet. Call learners in turns to have a feel of the magnet and relate to it.</p> <ul style="list-style-type: none"> <li>• What is the name of this object?</li> <li>• Do you know its uses?</li> </ul> <p>Write learners responses and discuss them.</p> <p>Drill learners on the correct pronunciation and meanings of the terms;</p> <ul style="list-style-type: none"> <li>• A magnet is any metallic substance which attracts magnetic materials and repels non-magnetic materials</li> <li>• Magnetic materials are materials that are attracted by magnets. Examples iron, nickel and cobalt.</li> <li>• A magnetic field is the area or region around a magnet where the magnetic force can be experienced or felt.</li> </ul> <p>Put learners into groups. Give each group a piece of magnet. They are to explore the magnet and observe its behavior of properties/characteristics.</p> <p>Let groups present their findings to the class for discussion.</p> <p>Guide learners to demonstrate the properties of magnet. Example:</p> <ol style="list-style-type: none"> <li>1. They have poles at opposite ends.</li> <li>2. Opposite poles of two magnets attract each other.</li> <li>3. The force of attraction of a magnet is greater at the poles than at the middle.</li> </ol> <p>Engage learners to discuss and describe the types of magnets that exist.</p>	battery, transistor, capacitor, inductors, light emitting diode (LED) and diodes

	<p>Learners in their groups demonstrate the uses of magnet in everyday life.</p> <p>Example:</p> <ol style="list-style-type: none"> <li>1. They are used in making electric meters.</li> <li>2. They are used in making electric door bells.</li> <li>3. They are used in fridges and freezers as doors seals.</li> <li>4. They are used in loud speakers.</li> </ol> <p><u>Assessment</u></p> <p>State some everyday applications of magnets.</p> <p>Explain how magnets cause motion in magnetic materials</p>	
<p>PHASE 3: <b>REFLECTION</b></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>	