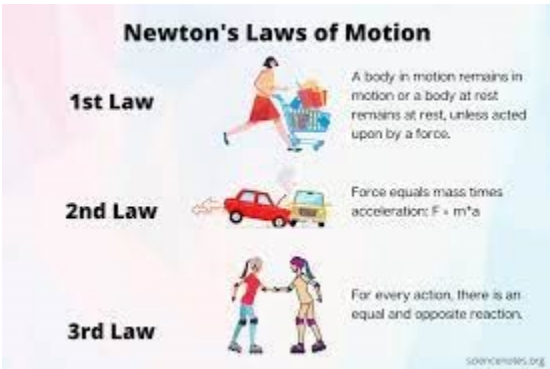

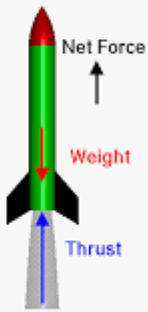
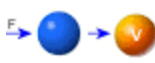

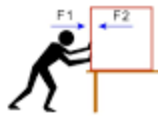
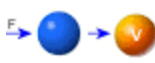

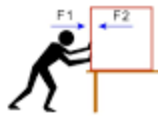
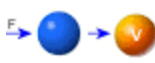

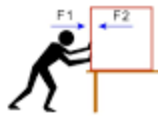


BASIC 7

WEEKLY LESSON PLAN – WEEK 3

Learning Indicator(s)	B7.4.4.1		
Performance Indicator	B7.4.4.1.1 State and explain Newton's First Law of motion		
Week Ending	30-09-2022		
FORM	B.S.7		
Subject	Integrated Science		
Reference	Curriculum, Teachers Resource Pack, Learners Resource Pack.		
Teaching / Learning Resources	Textbook, Pictures, Word Chart, Video Player.		
DAYS	PHASE 1 : STARTER	PHASE 2: MAIN	PHASE 3: REFLECTION
MONDAY 26-09-2022	Learners brainstorm to explain the meaning of Motion.	<ol style="list-style-type: none"> 1. Discuss with Learners Newton's Law of Motion. 2. Learners are to be guided to explain Newton's Law of Motion. 3. Show Learners a tutorial video show of Newton's Law of Motion.  <p>The infographic is titled 'Newton's Laws of Motion' and is divided into three sections. The first section, '1st Law', shows a person pushing a shopping cart and states: 'A body in motion remains in motion or a body at rest remains at rest, unless acted upon by a force.' The second section, '2nd Law', shows a red car accelerating and states: 'Force equals mass times acceleration: $F = m \cdot a$'. The third section, '3rd Law', shows two people on roller skates pushing each other away and states: 'For every action, there is an equal and opposite reaction.' The source 'sciencefiles.org' is noted at the bottom right.</p>	Core Competencies; <ol style="list-style-type: none"> 1. Ability to ascertain when information is needed and be able to identify, locate, evaluate and effectively use them to solve a problem. 2. Adhere to behavioural protocols that prevail in cyberspace. Knowledge

		<div>  <p>Newton's First Law <i>Applied to Rocket Liftoff</i></p> <p>"Every object persists in its state of rest or uniform motion in a straight line unless it is compelled to change that state by forces impressed on it."</p> <p>Before firing: Object in state of rest, airspeed zero.</p> <p>Engine fired: Thrust increases from zero. Weight decreases slightly as fuel burns.</p> <p>When Thrust is greater than Weight: Net force (Thrust - Weight) is positive upward. Rocket accelerates upward Velocity increases</p>  </div>	<p>and recognition of ethical use of information</p> <p>3. Explain ideas in a clear order with relevant detail</p>						
<p>THURSDAY 29-09-2022</p>	<p>Through questions and answers, review Learners knowledge on the three (3) laws of Motion.</p>	<ol style="list-style-type: none"> 1. Guide Learners to apply the Formula for calculating Newton's First law of motion. 2. Discuss with Learners the Formula for calculating the second and the third laws of Motion. <div> <p>$F = ma$</p> <p>$F = (81\text{ kg})(9.81\text{ m/s})$</p> <p>$F = 794\text{ N}$</p> <p>Newton's Laws of Motion</p> <table> <tr> <th>1st Law</th> <th>2nd Law</th> <th>3rd Law</th> </tr> <tr> <td>  <p>v forever</p> </td> <td>  <p>$F = ma$</p> </td> <td>  <p>$F_1 = F_2$</p> </td> </tr> </table> <div> <p>$F_{\text{net external}} = ma$</p> <p>Net force on object = mass of object x acceleration</p> <p>Equation of Newton's second Law of Motion;</p> </div> </div>	1st Law	2nd Law	3rd Law	 <p>v forever</p>	 <p>$F = ma$</p>	 <p>$F_1 = F_2$</p>	<p>Core Competencies;</p> <ol style="list-style-type: none"> 1. Ability to merge simple/ complex ideas to create novel situation or thing. Recognise and generalise information and experience; search for trends and patterns. Being open-minded, adapting and modifying ideas to achieve creative results
1st Law	2nd Law	3rd Law							
 <p>v forever</p>	 <p>$F = ma$</p>	 <p>$F_1 = F_2$</p>							

		<p>The equation for Newton's second law is:</p> $\vec{a} = \frac{\Sigma \vec{F}}{m} = \frac{\vec{F}_{\text{net}}}{m}$	
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