TERM THREE
WEEKLY LESSON NOTES
WEEK 3

Week Ending: 30th SEPT, 2022	**DAY:**	**Subject:** Science	
Duration: 60mins		**Strand:** Forces & Energy	
Class: B7	**Class Size:**	**Sub Strand:** Force & Motion	
Content Standard: 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		**Indicator:** B7.4.4.1.1 Understand that unbalanced forces acting on an object cause it to move.	**Lesson:** 1 of 2
Performance Indicator: Learners can explain that unbalanced forces acting on an object cause it to move..		**Core Competencies:** DL 5.3: CI 6.8: DL 5.1: CI 6.6:	
References: Science Curriculum Pg. 33-34			
New words: balanced, unbalanced, force			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Take learners out of the class and engage them to play the game of tag of war. • Did you enjoy the game? • How is the winner determined in this game? Share learning indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Fill a bucket full with sand. Place the bucket of sand on floor and call learners in turns to push the bucket with one finger. Let learners discuss their observation. Drill learners on the correct pronunciation and meanings of the terms. • Balanced forces are forces that are equal in size and opposite in direction. Balanced forces do not result in any change in motion. • Unbalanced forces are forces applied to an object in opposite directions that are not equal in size. Unbalanced forces result in a change in motion. • Friction. The force that opposes the motion of two objects that are in contact. Explain to learners that when you pushed the heavy bucket with a small push, the bucket did not move. The frictional force balanced the small pushing force. Call learners again to push the bucket with their two hands. Now it could be observe that, when a larger force was applied, the bucket moved. The pushing force was now greater than the friction. Since the forces were unbalanced, the bucket moved.	Batteries Torch Switch Radio, Charts and drawings sh owing energy conversion

	Guide learners to conclude that when one force is greater than another, the forces are said to be unbalanced. If the forces acting on an object are unbalanced, this is what happens: • An object at rest start move. • A moving object stop, or change the direction and speed of the object. <u>Assessment</u> Define the following i. Balanced force ii. Unbalanced force iii. Friction	
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. <u>Homework</u> How is Kojo able to push a wheel barrow full of sand from his house to the site?	

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Class: B7	**Class Size:**	**Sub Strand:** Force & Motion	
Content Standard: 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	**Indicator:** B7.4.4.1.2 State and explain Newton's First Law of motion	**Lesson:** 1 of 2	
Performance Indicator: Learners can state and explain Newton's First Law of motion.	**Core Competencies:** DL 5.3: CI 6.8: DL 5.1: CI 6.6:		
References: Science Curriculum Pg. 33-34			
New words: newton, inertia, motion			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners on the previous lesson. Share learning indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Pick a ball and perform these activities; 1. Place the ball at a stationary position on the teachers table. 2. Roll the ball on the ground from end to end of the class Let learners write down their observations for discussion. Guide learners to state Newton's first law of motion. *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*. It is also called the law of inertia. In groups, learners discuss the types of inertia. • Inertia of rest: An object stays where it is placed, and it will stay there until you or something else moves it • Inertia of motion: An object will continue at the same speed until a force act on it. • Inertia of direction: An object will stay moving in the same direction unless a force acts on it. 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.  With no external force this ball will never move  With no external force the ball will never stop	Batteries Torch Switch Radio, Charts and drawings showing energy conversion

	In groups, learners research the occurrence of things around us using Newton's first law of motion. Example: 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. <u>Assessment</u> State and explain Newton's first law of motion.	
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. <u>Homework</u> Learners research the occurrence of some of the things around us using Newton's first law of motion.	