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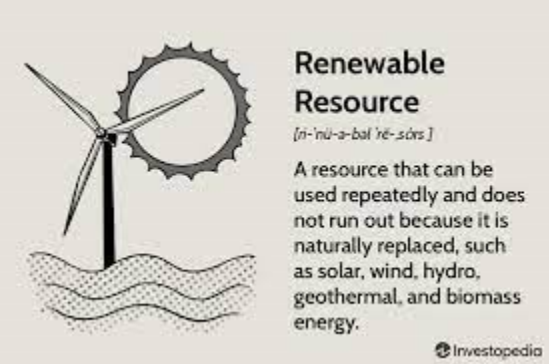
BASIC 8

WEEKLY LESSON PLAN – WEEK 3

Strand:	Forces and Energy		**Sub-Strand:**	Energy	
Content Standard:	B8.4.1.2 Show understanding of the sources of renewable energy and how to manage these sources in a sustainable manner				
Indicator (s)	B8.4.1.2.1 Describe renewable and non-renewable forms of energy. B8.4.1.2.2 Demonstrate how to manage sources of renewable energy sustainably		**Performance Indicator:** Learners can identify the sources of renewable energy sustainably.		
Week Ending	21-04-2023				
Class	B.S.8	**Class Size:**		**Duration:**	
Subject	Science				
Reference	Science Curriculum, Teachers Resource Pack, Learners Resource Pack, Textbook.				
Teaching / Learning Resources	Bottle tops, salt, sugar, sand, gari, gravel, oil, water, Poster, Pictures		**Core Competencies:**	• Communication and Collaboration • Critical thinking and Problem Solving • Digital Literacy	

DAYS	**PHASE 1 : STARTER**	**PHASE 2: MAIN**	**PHASE 3: REFLECTION**
MONDAY **17-04-2023**	Discuss the meanings of renewable and non-renewable sources of energy with the Learners.	1. Assist Learners to distinguish between renewable and non-renewable sources of energy with examples. 2. Learners in small groups to discuss the various sources of renewable and non-renewable forms of energy and classify them 3. A representative from each group to report on the groups discussions. **Renewable:** Renewable resources are obtained anywhere the resource is found and where it is practical to install the necessary technology to access it. For example, any sunny rooftop in Arizona can be used to generate solar energy. Many coastal areas are suitable for offshore wind farms, and rivers and streams are ideal for hydropower. It is replenished whenever there is a sufficient amount to generate electricity. **Nonrenewable:** Nonrenewable resources have to be extracted by mining or drilling down into Earth's crust. This process is often dangerous	Reflect on the differences between Renewable and Non-renewable sources of energy.

		for workers and disruptive to the surrounding landscape. It must then be transported worldwide, which uses even more fuel and can result in hazardous events like oil spills. **What renewable and non-renewable resources have in common** They are very different forms of energy. However, some of the things they have in common are: • They cost money to generate and produce • They produce jobs • Biomass is also burned, like fossil fuels • They can power our world	
THURSDAY **20-04-2021**	Review Learners knowledge on the previous lesson.	1. Discuss with Learners how to produce energy from a renewable source of energy. 2. Learners brainstorm to identify examples of producing energy from renewable source of energy. 3. Demonstrate producing energy from a renewable source of energy. 4. Individual Learners practice producing energy from a renewable source of energy. **How renewable energy sources produce electricity;**  Solar, or photovoltaic (PV), cells are made from silicon or other materials that transform sunlight directly into electricity. Distributed solar systems generate electricity locally for homes and businesses, either through rooftop panels or community projects that power entire neighborhoods.	Through questions and answers, conclude the lesson. **Exercise;** State 5 examples producing energy from a renewable source of energy.

FRIDAY **21-04-2023**	Show Learners video and pictures of how to manage renewable source of energy.	1. Discuss the stages involved in managing renewable sources of Energy with the Learners. 2. Assist Learners to create a table to describe challenges associated with the management of different sources of renewable energy. **The different steps of sustainable energy management** 1. Set up a sustainability strategy. 2. Identify the most appropriate sustainable energy technologies. 3. Negotiate self-generation contracts. 4. Trade green commodities. 5. Buy green energy. 6. Monitor your carbon emissions. **Environmental and Economic benefits of renewable sources of Energy;** ✓ Generating energy that produces no greenhouse gas emissions from fossil fuels ✓ reduces some types of air pollution. ✓ Diversifying energy supply ✓ reducing dependence on imported fuels. 	Reflect on the needs to manage renewable sources of Energy. **Exercise;** 1. State the steps of sustainable energy management. Explain 5 importance of Renewable sources of Energy.

Name of Teacher: ***School:*** ***District:***