BASIC 7

WEEKLY LESSON PLAN – WEEK 11

Learning Indicator(s)	B7.5.4.1		
Performance Indicator	B7.5.4.1.1 Search for information on ways sustainable energy choices and scientific ideas are used to protect the environment.		
Week Ending	25-11-2022		
FORM	B.S.7		
Subject	Integrated Science		
Reference	Curriculum, Teachers Resource Pack, Learners Resource Pack.		
Teaching / Learning Resources	Textbook, Word Chart, Pictures.		
DAYS	**PHASE 1 : STARTER**	**PHASE 2: MAIN**	**PHASE 3: REFECTION**
MONDAY **21-11-2022**	Learners are to be guided to explain Sustainable Energy.	1. Learners brainstorm to identify sources of Sustainable Energy. 2. Discuss with Learners how people use sustainable energy choices and scientific ideas to protect the environment 3. Discuss the meaning of Greenhouse effect with the Learners. 4. Learners in small groups to discuss greenhouse effects on the environment and how it can be minimized. **Sustainable Energy** Sustainable energy can be defined as a form of energy that can be utilized again and again without putting a source in danger of getting depleted, expired, or vanished. **Sustainable energy sources** • Solar. • Wind power. • Hydropower. • Geothermal. • Bioenergy.	**Core Competencies;** 1. Ability to combine Information and ideas from several sources to reach a conclusion 2. Generate hypothesis to help answer complex problems

		• Marine energy. • Fossil fuel switching and mitigation. • Nuclear power.  **How people use sustainable energy choices and scientific ideas to protect the environment;** • Generating energy that produces no greenhouse gas emissions from fossil fuels and reduces some types of air pollution • Diversifying energy supply and reducing dependence on imported fuels • Creating economic development and jobs in manufacturing, installation, and more	
THURSDAY **24-11-2022**	Review Learners knowledge on the previous lesson.	1. Discuss with Learners how energy can be locally sustained through the use of scientific processes to protect the environment. 2. Assist Learners to design a project to show how energy can be locally sustained through the use of scientific processes to protect the environment. **Scientific Processes;** • Define a Question to Investigate. As scientists conduct their research, they make observations and collect data. • Make Predictions. Based on their research and observations, scientists will often come up with a hypothesis. • Gather Data. • Analyze the Data. • Draw Conclusions	**Core Competencies;** 1. Ability to combine Information and ideas from several sources to reach a conclusion 2. Generate hypothesis to help answer complex problems

How to sustain energy through the use of scientific processes to protect the Enironment;

1. improving our understanding of atmospheric and ocean chemistry
2. investigating the consequences of climate change
3. developing new energy and carbon mitigation solutions
4. helping crops to tolerate the changing conditions.

How Energy can locally be sustained;

1. Install solar cells on the university's rooftops.
2. Optimise the ventilation, air-conditioning and heating of building management systems.
3. Reduce the brightness of computer screens.
4. Install automatic movement sensors to switch off lights in buildings.