SUBJECT: BASIC SCIENCE

TOPIC: RENEWABLE AND NON-RENEWABLE ENERGY, ENERGY AND SOCIETY

CLASS: JSS1

OBJECTIVES

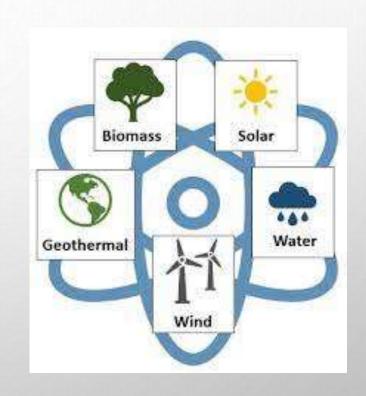
At the end of the lesson students should be able to:

- 1. Explain the meaning of renewable and non-renewable energy
- 2. Give examples of renewable and non-renewable energy
- 3. State the implications of misuse non-renewable energy
- 4. Describe how energy generation affects quality of life.
- 5. Explain energy and society
- 6. Mention various ways lack of energy supply affects societal development.



RENEWABLE ENERGY

Renewable energy are energy that come from natural resources which can be replaced after use.



IMPLICATIONS OF MISUSE OF NON-RENEWABLE ENERGY

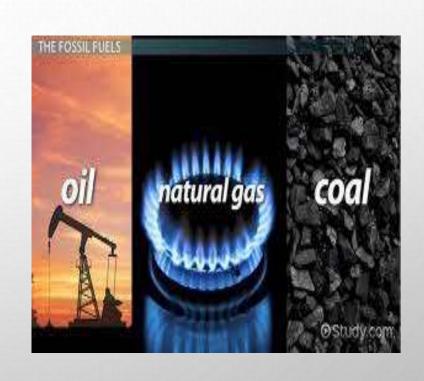
- i. Environmental pollution
- ii. Desertification
- iii. Imbalance of nature and ecological problems
- iv. Untimely drying up of the resources





NON-RENEWABLE ENERGY

So far, Non-renewable energy cannot be replaced after used



CONSERVATION OF NON-RENEWABLE ENERGY

These resources can then be conserved through;

- 1. Cutting down of wastages e.g. stopping flaring of gases.
- Embracing alternative or renewable sources of energy such as biogas, biofuel and hydropower.
- 3. Devising of more efficient engines with lower fuel consumption.
- 4. Development of improved mining methods.

REASONS FOR CONSERVING NON-RENEWABLE

- i. To prevent pollution of the environment
- ii. To prevent untimely drying up
- iii. To prevent in balance in nature because of over-exploitation
- iv. To prevent desertification
- v. To prevent global warning as a result of constant emission of most fossil fuels



ENERGY AND SOCIETY

Energy is the ability to do work. Society is made up of people in general living together in community. People in both urban and rural area today used vast amount of energy.



Energy is used domestically, industrially, in offices, artisans like welders, saw millers, fashion designer, transporters, pepper grinders etc.

The following are the various ways in which lack of energy supply affects societal development increase in cost of production

Hydro Electricity Power

It is electrical power generated through the energy of flowing water. It has the advantage of using only renewable resources and not producing harmful waste by product and it is therefore viewed by many as an environmentally friendly alternative to the burning of fossil, fuels that still provides the bulk of the electricity consumed throughout the world. 11

There are different designs of hydroelectricity power plants but the most common ones involve constructing of a large dam across a lake at a relatively elevation of a reservoir of water, allowing water to flow from it in a controlled way down the hill of the generator which is located at a lower elevation.



In most cases, the water used in the dam which is a renewable source of energy can be replenished by rainfall but such power plants use excess electricity to form water back up to the reservoir.

Advantages of Hydro-electric power

- 1. It is clean and renewable
- 2. It does not produce any emission of harmful pollution such as soot and Sulphur-dioxide.
- 3. It does not generate waste product that present longtime disposal problem

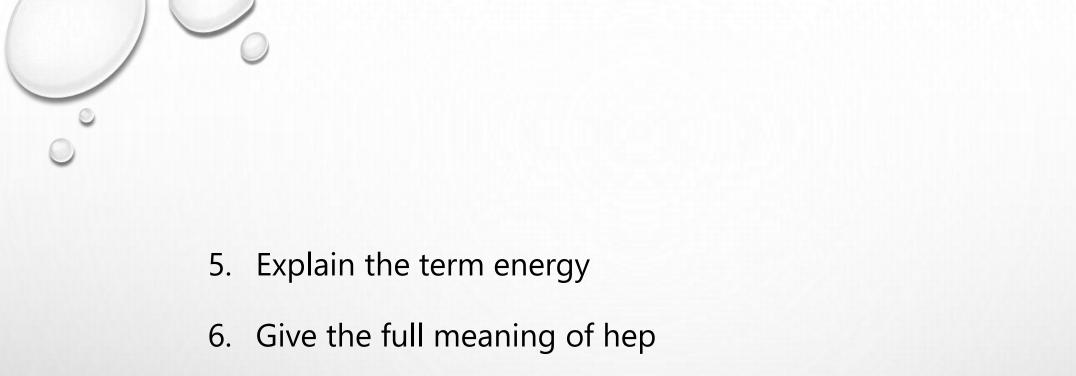
4. It is renewable in that it does not use source that is limited pole oil and natural gas, all these will run out water is in exhaustible. Water is constantly renewed by rainfall

- 5. Irrigation
- 6. Water dock



EVALUATION

- 1. Explain the meaning of renewable and Non-renewable energy.
- 2. Give two examples each of renewable and Non-renewable.
- 3. State one effect of wrong use of renewable energy.
- 4. State three ways through which lack of energy supply affect societ



7. List four advantages of hydro electric power



