

1076 NADI SANGAM SCHOOL
YEAR 8 MATHS WORKSHEET 3 – 2021
BASIC SCIENCE - LESSON NOTES

STRAND 3 : ENERGY

Sub Strand : *Energy Source and Transfer*

Content Learning Outcome : *Students should be able to identify energy sources and forms of energy*

... Continue from previous notes

c) Radiation

- All objects radiate heat and energy even your own body
- Radiation leaves the object in the form of waves
- Shorter wavelength of radiation – hotter

V. Impt

- Blackbody – object that is good at radiating heat
Example – sun and earth

Draw picture on Pg 83



2. Electrical Energy

- Forms of energy associated with electrical charges (electrons (tve)/protons (-ve)
- Electrical charges can be stationary as in static or moving as in electric current.
- Convenient form of energy
- Electricity can be generated from many different sources
- Can also change in other forms such as light and heat

Draw a switch board

3. Sound Energy

- Sounds are produced when an object vibrates
- The air around the object also vibrates
- These vibration in the air travel as sound waves
- The sound waves moves sound energy from one place to another

Draw yourself beating a drum or strumming a guitar

4. Solar Energy

- ❖ Energy from the sun

Uses of Solar Power

1. Heat Source
2. Energy Source

Where does Solar Come From?

- ❖ 1830's –British astronomer John Herschel used a thermal collector box (a device that absorbs sunlight to collect heat) to cook food during an expedition to Africa.
- ❖ Solar energy can be used for heat and electricity

Note

When converted to thermal (heat energy) it can be used to ;

- Heat water – used in homes, buildings or swimming pools
- Heat spaces – inside homes, greenhouses and other buildings

Solar Cells

- Devices that convert light energy to electrical energy e.g cells in calculators

Solar Panels

- ❖ do not generate electricity
- ❖ Heat up water directly
- ❖ Located on roofs of buildings where they received most sunlight

Copy diagram on solar panel Pg 86 .

Sub Strand : Energy Transformation , Use and Conservation .

Note

- ❖ Energy may change its form but it can't be made out of nothing and neither can it be destroyed.
- ❖ Power station change s the chemical energy of the fuel into electrical energy
- ❖ Instead we change this energy into another form of energy such as heat or light .
- ❖ Machines uses one form of energy to convert another form of energy like heat, light, sound and movement.

Note : Take some time to read through 10 rules for electric safety on Pg 89.