



Provincial Department Of Education – Sabaragamuwa  
WEEKLY SCHOOL

Subject : Science

Grade 7

Week : 10<sup>th</sup> of 1<sup>st</sup> Term

### Unit 3 – Generation of Electricity(3)

#### ➤ Solar panels

**Activity 3.9**  
**Studying the function of a solar panel**

**You will need:-** A solar panel, a small electric motor, a torch bulb, connection wire

**Method:-**

- Connect the terminals of the electric motor to the terminals of the solar panel.
- Expose the solar panel to light and observe.
- Change the terminals of the solar panel, which are connected to the motor. Observe whether the direction of turning of motor changes.
- Keep the solar panel in the dark and observe the running of motor.
- Repeat the activity using the torch bulb instead of the motor.
- Tabulate the observations.

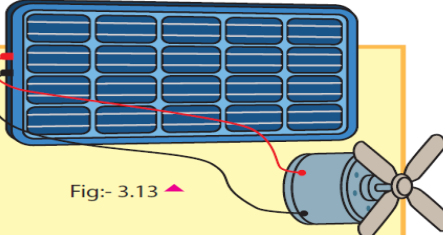


Fig:- 3.13 ▲

Instance	Electrical Motor	Torch bulb
When solar panel is exposed to light		
When solar panel is kept in dark		
When the terminals of solar panels are changed		

#### ➤ Dynamo

**Activity 3.11**  
**Generation of electricity in a bicycle dynamo**

**You will need:-** A bicycle dynamo or a laboratory dynamo model, a torch bulb, a few pieces of wire

**Method:-**

- Connect the torch bulb to the terminals of the dynamo.
- Turning the dynamo slowly and faster, observe the brightness of the bulb.
- Discuss the reason for the observation.




Figure 3.18 ▲

**Activity 3.12**  
**Making a simple dynamo**

**You will need:-** About 4 m of insulated copper wire (32 SWG), a bar magnet, a large cork, about 10 pieces of iron wires (each 15 cm long), a galvanometer, cellotape, a bicycle spoke

**Method:-**

- Bend all the 10 iron wires in U shape, where each arm is about 2 cm long.
- Keep all the bent wires in a single pile to make a bundle of them.
- Wind the insulated copper wire around the bundle of iron rods, as shown in the Figure 3.19, to make a coil.
- Clean both ends of the coil and connect them to the galvanometer
- Place the bar magnet, fitted to the large piece of cork, near the coil and turn it.
- Observe the movement of the indicator of galvanometer.

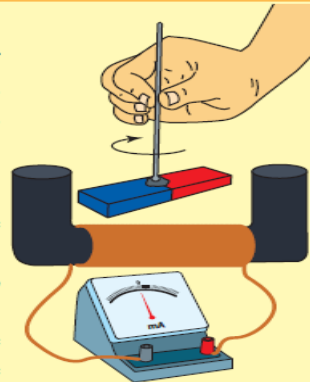


Figure 3.19 ▲