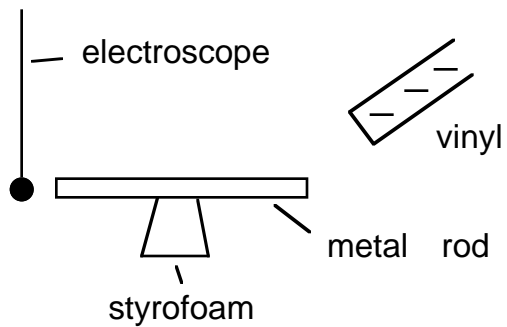


## Current Electricity : W.S. 20

1)a) What is current electricity?

b) How is a current detected? (give two ways)

2) Explain what happens when the charged vinyl strip is brought near the metal rod.



3) Name three devices that can produce a current.

4) Explain how the lemon cell works. Draw a picture.

5) Explain how the generator works. Draw a picture.

6)a) Give three ways to make the generator more efficient.

b) Give three ways to move the rotor of the generator.

7) What is the difference between a generator and a motor?

Answers: 1)a) It is electricity that moves., b) Very small currents can be detected with a galvanometer., Larger currents can be detected with a small light bulb., 2) Electrons move to the left end of the metal rod. The neutral styrofoam ball is attracted to the metal rod and becomes negatively charged. It will then be repelled. 3) generator, cell, battery, solar cell. 4) A chemical reaction occurs when two different metals are inserted into a lemon which will produce a current when the metals are connected to some device such as a light bulb or galvanometer., 5) When a magnet moves near a wire loop, a current is produced in the wire., 6)a) Use a more powerful magnet, have more loops of wire, or move the magnet faster., b) water, steam, wind, or your muscles., 7) There is no basic difference. But a generator changes mechanical energy into electrical energy, and a motor changes electrical energy into mechanical energy.