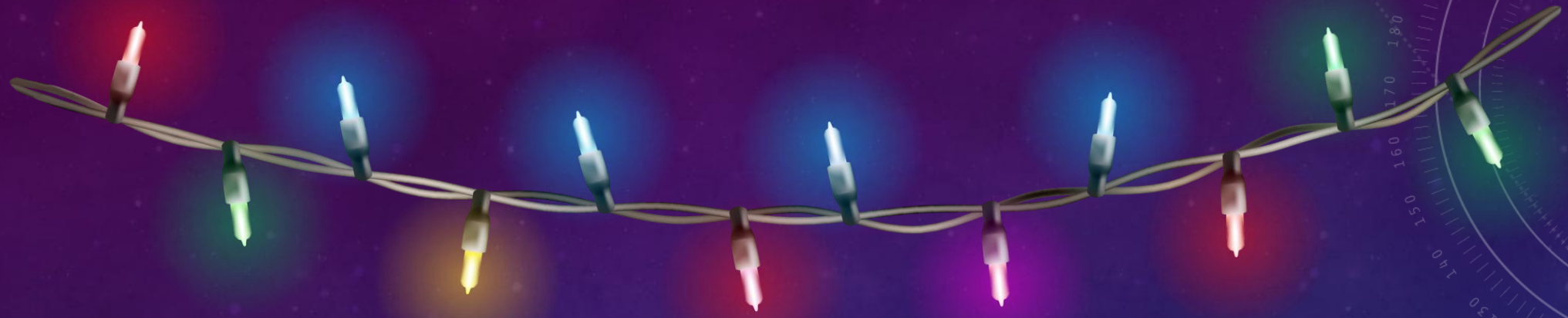
LESSON 30

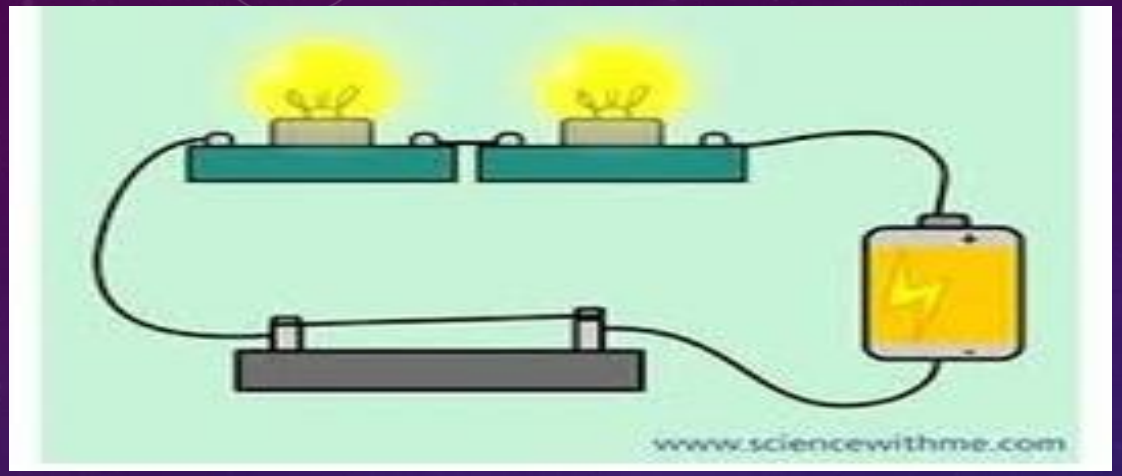
SERIES AND PARALLEL CIRCUITS



Have you observed that in a series of Christmas light, once one bulb id busted the entire series of lights will not light up? Compare it with the lights at home. Does it also follow when a bulb in a room is busted, the bulbs in other parts of the house do not light up?

Christmas lights and light bulbs in your house have different kinds of circuits. One is a series circuit and the other is a parallel circuit

To make all the bulbs light up again, the circuit must be closed by replacing the busted bulb.



Bulbs that are connected one after the other in one chain is an example of a series circuit In a series circuit, electric current flows through a single path, so when one bulb is loosened or busted, all the other bulbs in this circuit will not light anymore. The loosened or busted bulb breaks or opens the pathway, so electricity cannot flow through.

A parallel circuit, on the other hand, has light bulbs with different loops. Thus, each bulb is a part of a different circuit. When one bulb is loosened, taken or burned out, the other bulbs still light up. This is because each bulb has its own pathway. A break in one pathway does not make all the lights go out because electricity can still flow through the other pathways

What kind of circuit do we have in our homes?

If you turn off one bulb, what would happen if you used a series circuit in our home? All the other bulbs will be turned off because, in a series circuit, there is only one path of electricity Thus, the most appropriate circuit for homes is the parallel circuit. In such a circuit, each lights and electrical device has its own path of electricity that, even if you turn off one of them, the others will still function.