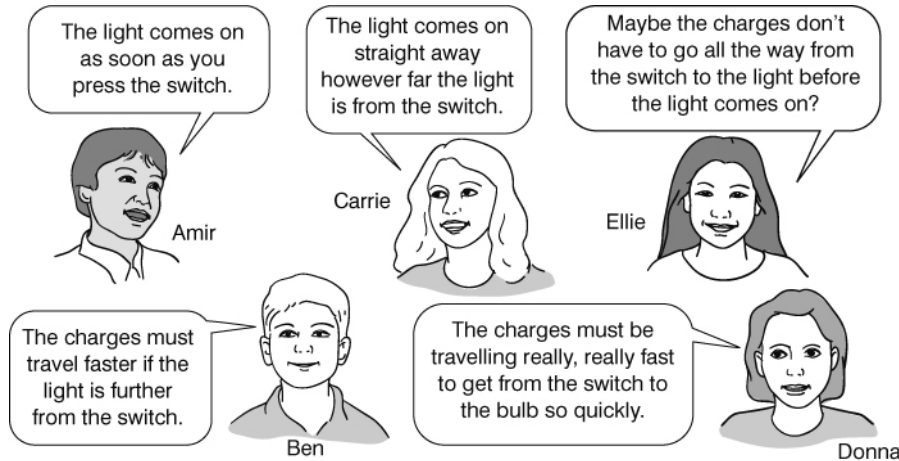


I can...

- identify what the parts of a physical model represent
- use a physical model to explain why a light comes on as soon as the switch is pressed.



Fred got out the hosepipe to water the garden. He turned the tap on. His little sister was looking down the end of the hosepipe to see where the water was. It took about 10 seconds for the water to get from the tap to the end of the hose.

Fred went inside for a drink when he had only watered half of the garden. He turned the tap off but left the hosepipe laid out on the lawn. When he came back out again the water spurted out of the end of the hosepipe as soon as he turned the tap on.

When he put the hosepipe away he squashed as much water out of it as he could.

1 Which parts of the hosepipe story represent:

- wires in a circuit
- charges
- the bulb in a circuit lighting up
- a switch?

- 2**
- Why did it take 10 seconds for the water to come out of the end of the hosepipe when Fred first used it?
 - Why did the water come out straight away the second time?
 - How does this help to explain why a light comes on as soon as the switch is pressed, even if the light is a long way from the switch?