

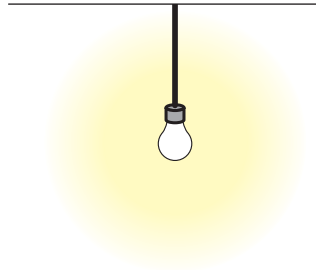


# Shadows change direction

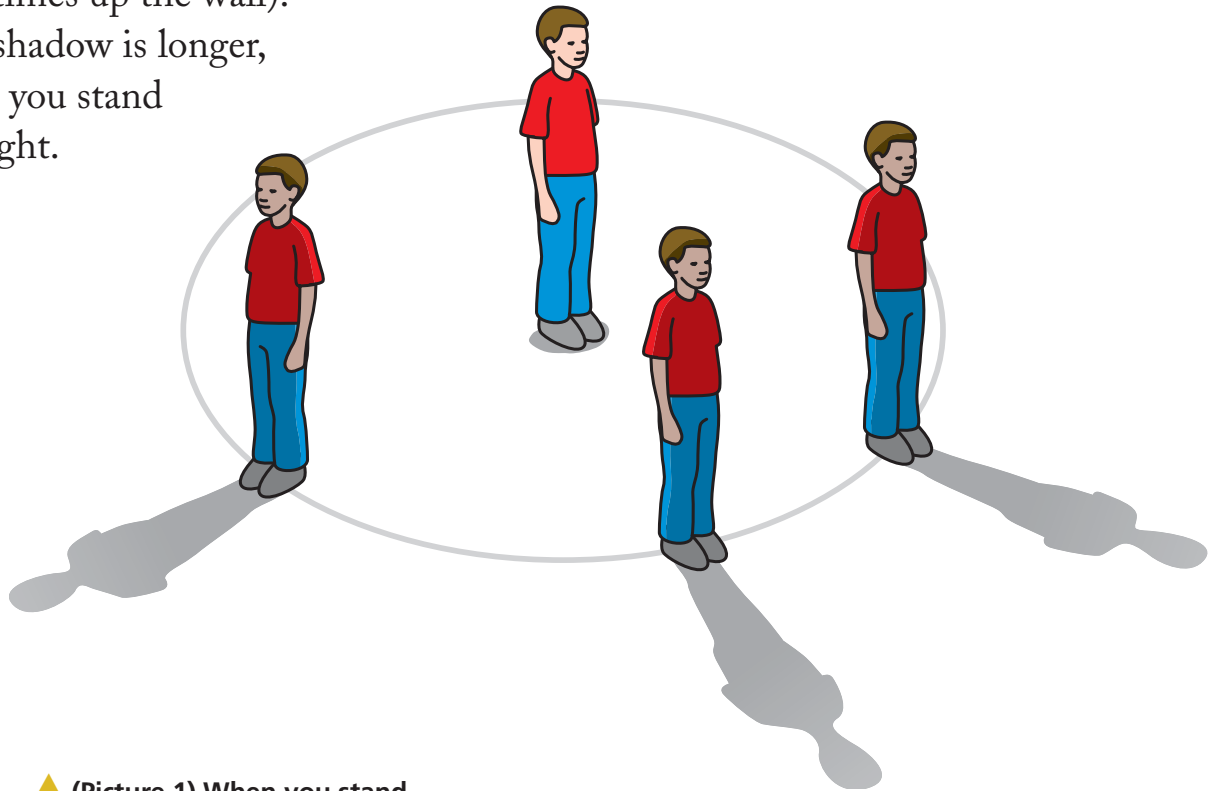
When the source of light moves, the shadows it makes change length and direction.

Have you ever looked at the way your shadow moves? If you stand in a room with only a single light (Picture 1), you can notice these things about your shadow:

- ▶ That your shadow always faces away from the light.
- ▶ That your shadow changes direction as you move about the room.
- ▶ That your shadow begins at your feet, and then spreads out across the floor (and sometimes up the wall).
- ▶ That your shadow is longer, the further you stand from the light.



When you are almost beneath the light, your shadow is squashed up; but as you move away from the light, your shadow becomes drawn out. In between, there is a place where your shadow looks about the same length as yourself.



▲ (Picture 1) When you stand at various distances from a single source of light, your shadow changes shape and direction.

▼► (Picture 2) When the light is lower, your shadow becomes longer.

## Lower light

What happens when the light is lower? Picture 2 shows some of the answers. Notice that compared to Picture 1, the shadows are all longer – except for the one under the light. Otherwise, the directions of the shadows stay the same. You might like to try this out for yourself.

### Summary

- Shadows become longer the lower the angle of the light.
- Shadows become more squashed up when the light is overhead.
- Shadows always face away from the source of the light.

