

Suzy's World

Shadow - What is a shadow?

Fact

- Whenever light is blocked we make a shadow.
- When there is no light there is darkness and a shadow is an area of darkness.
- Light can't travel through most solid objects. When light is blocked by an object a shadow is formed behind it.
- Light only travels in straight lines, it can't bend to go round corners, so if it hits a solid object it can't bend round behind the object to light up the area behind it.

Do you know

- A shadow starts where the light is blocked so your shadow starts at your feet.
- Sundials use shadows to tell the time.
- When the sun is directly above you there is little to no shadow because the light from the sun is hitting all the area around you.
- The length of shadows constantly changes as the earth rotates on its axis away from the sun.

Experiments you can do

Measure the movement of shadows.

At morning break, face the sun and get a friend to trace around your shadow on the concrete with a piece of chalk. Trace around your feet too so you know exactly where you were standing. Stand in the same place at lunchtime and trace around your shadow with chalk. Do the same just before heading home for the day. What happens to your shadow? Why does it move? How does it change? What do you think makes it do that?

Other Investigations

The shrinking growing shadow.

With the help of an adult set up a lamp so you can cast a shadow on the wall behind you. Watch your shadow as you move about. Does it follow your every move? What happens when you move closer to the lamp – the source of light? And then what happens as you move away from it?

Maybe you could try a shadow play using your hands to make shadow shapes or by using your toys to cast shadows on the wall.