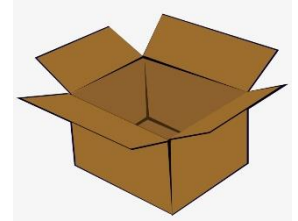




Science Activity

Hand Shadows

Time to prepare: 5 minutes



□ Please stay safe and ask a grown up to supervise you

Resources/ things you need

- Wall in a dark room - Turn off the lights and shut the curtains so it is as dark as possible.
- Torch

What to do

Try this experiment to make shadows that are big or small, sharp or blurred.

1. Point your finger upwards and hold it about 5cm in front of the torch's light.
2. Watching the shape of the shadow move your hand another 5cm away from the torch. **What does the shadow look like? Is it large and blurred or small and sharp?**
3. Now, move your hand 20cm away from the torch.
4. Then, move your hand as far away from the torch and as close to the wall as you can without touching it. **What does the shadow look like now? Is it large and blurred or small and sharp?**

Background and the link to learning

Shadows are made when something blocks light. When your hand is close to the torch it blocks out a large area of the light beam making a large shadow. Having a wide light source like a torch close to your hand makes the edges of the shadow blurred. The further away your hand is from the torch, the less of the light beam your hand stops, so the smaller the shadow. The edges of the shadow are sharper because the light can't get round the edges of your hand.

Pictures



Link to other similar activities - Please see: [Making a Shadow Puppet Play.](#)

