

100. How can you make your shadow bigger?

You will need: overhead projector; white chalk; A3 black sugar paper; white art paper; chair; wall; Blu-tack®.

- ◆ Challenge the children to fill an A3 black piece of sugar paper with the silhouette of the side view of their face.
- ◆ Stick the black sugar paper to the wall with Blu-tack®.
- ◆ Each child in the group should take it in turns using the overhead projector and allocate a member in their group to move and operate the projector, draw around a silhouette, sit in the 'hot seat' to have their shadow enlarged and cut out a silhouette.
- ◆ Repeat until everyone in the group has had a turn at all tasks.
- ◆ The silhouettes can then be stuck on a larger sheet of white art paper for display within the classroom.
- ◆ Remind each group that they should not tell the next group how they did it, so that all groups can investigate the phenomenon for themselves.

Talk about/discuss:

- ◆ Ask the children to list the factors they found which affected the size and position of their shadows.
- ◆ How did changing one factor cause their shadow to change?

Safety:

Caution the children that parts of a projector, especially the bulb, can become very hot, and to take particular care not to touch these parts. If necessary, have an adult adjust the projector at the children's direction.