

## Shadows Activities

This week your job is to investigate shadows!

During this week, I would like you to explore (and hopefully answer) these key questions:

1. What is a shadow and how is it made?
2. What links can you make between the shape of an object and the shape of its shadow?
3. Using the same object, can you change the size of its shadow? If you can, how do you do it?

There are a variety of different ways you can explore these questions. I have listed a few different activities that you can have a go at below. You do not have to do all of the activities but you can if you wish - choose the ones you'd like to try and see what you learn! Don't forget to make a note of anything you find out linked to the key questions.

- What objects can you find around you that make a shadow? Look at the shape of the shadow - what's the same about the object and its shadow. What's different? Write down some of your thoughts and ideas!
- Shadow drawings - I think this activity was shared on the Class Facebook page a while ago but it would fit perfectly here!  
You will need some paper, a sunny day outside or by a window and some toys/objects (dinosaurs and animals seem to work well).  
Lay the pieces of paper out on the floor/table in a sunny area - either outside or by a window. Place the toys just on the edge of the paper and you should see the shadows form. Draw around each shadow and label them with the time. If you can, leave the paper where it is and repeat the activity a few hours later. What has happened to the shadow of the toy or object? Why do you think this might have happened?
- Make your own shadow puppets!  
You will need a stick/straw or similar, some paper or card, scissors, glue/sticky tape and a light source.  
First, design your puppet on the paper/card (the outline is the most important!). Then cut it out and attach it to the end of your stick/straw. Hold your puppet in front of a plain wall and shine a light source on it. You should see the puppet's shadow appear on the wall. You've now made a shadow puppet!  
Then explore you can investigate what affects the size of a shadow.  
Have a look at the start of [this video](#) on Espresso to give you an idea of one type of investigation you could try!  
Don't forget to have fun with your shadow puppets too!
- Find out about and make your own human sundial!  
Use the 'Human Sundial' investigation sheet to explore this activity.