LO: How are shadows formed? Is there a pattern in the way the size of shadows change?

Vocabulary recap. What does transparent, opaque and translucent mean?

For today's lesson we're looking at two questions.

How are shadows formed?

Is there a pattern in the way the size of shadows change?

You will need:

- a stick
- some seloptape
- a shape cut out of opaque material like card (this will be your shadow puppet)
- a torch (a phone torch will work too)
- a dark room

How to do the activity:

Selotape the card shape onto the end of the stick.

Keep the torch in one position. Turn the light off and turn the torch on.

Hold the shadow puppet in front of the torch. Have a go at answering the first question: How are shadows formed? Try to use the vocabulary we just reminded ourselves of at the start of the lesson.

Next, experiment with what happens to the shadow when you move the shadow puppet near to the light source (the torch). What happens when you move the shadow puppet further away from the light source?

Write these sentences into your home learning book.

When the shadow puppet is near to the light source, the shadow is ______.

When the shadow puppet is further away from the light source, the shadow is ____

You could also draw a diagram or a cartoon showing what happened. Remember to label it!

Challenge: Have a go at explaining *why* you think the size of the shadow changes in this way.

Fun activity!

Get a toy which will make a good shadow. See what happens when you move it nearer and further from the torch. Notice what cool effects you can make with the shadow.

With an adult's permission, blue tack a white sheet of paper to the wall. Get a felt tip pen ready. Put the toy near to the wall. Turn off the light, turn on the torch and draw around the shadow of your toy. Then move the toy nearer to the torch. Draw around the shadow again. Make this into a work of art and stick it into your home learning book.