

Curriculum Aim: Find Patterns in the Way That the Size of Shadows Change

Lesson Ideas

Success Criteria:

- I can describe the way the size of shadows change.
- I can explain why the size of shadows change.

Resources:

- Strong light source (the beam from a whiteboard projector would be ideal).
- Torches
- [Twinkl Animals Shadow Puppets Cut-Outs](#)
- Rounders post or similar free-standing post
- Chalk
- Metre stick

Useful PowerPoints:

- How Do Shadows Change? PowerPoint
- [Twinkl Light and Shadow PowerPoint](#)
- [Twinkl Shadows PowerPoint Quiz](#)

Whole Class Demonstration Activities:

Recap how a shadow is formed using the How do Shadows Change? PowerPoint

Create a shadow puppet using the [Twinkl Animals Shadow Puppets Cut-Outs](#). Have a blank white background on your whiteboard. Hold the shadow puppet away from the light source, closer to the whiteboard. Then, slowly move the puppet towards the light source. Ask the children to discuss what happens to the shadow.

This activity will only work on a sunny day! Before the start of the school day, put the post in an area where it won't be disturbed all day. Use the chalk to draw a line to show where the shadow is and measure the line. Once the children are in school, take them outside to show them the experiment. Ask the children to talk about how the shadow has changed since you drew the chalk line. Then, ask one of the children to draw a line to show where the shadow is now and measure it again. At various points during the morning, go out to draw a line to show how the shadow has changed and measure it. Talk about what is happening and encourage the children to give reasons for this change. Before midday, children complete the first part of the Shadows during the Day Activity Sheet. Continue measuring the shadow for the rest of the school day. Children should complete the rest of the Shadows during the Day Activity Sheet.

Continue measuring the shadow for the rest of the school day. Children should complete the rest of the Shadows during the Day Activity Sheet.

To extend the children's learning, they may wish to explore how the movement of the Earth around the Sun affects the size of shadows. They could also explore whether shadows are always the same at different times of the year.

Independent or Paired Work:

Here are some activities designed to investigate shadows:

- Shadows during the Day Activity Sheet
- Shadow Puppet Activity Sheet
- [Twinkl Light and Shadow Worksheet](#)
- [Twinkl Light and Shadow Activity Sheet](#)
- [Twinkl Light and Shadows Questions Worksheet](#)
- [Twinkl Light and Shadows Bingo Activity](#)