

Shadow Art

Follow the path of the sun with shadow drawings

9 - 12

Vibration & Waves



Background information:

This is a great fusion activity using **art and design** to record and collect information about a scientific process. The initial pieces of shadow art can be a springboard for developing ideas based around the initial study.

The resultant shadow art recordings are also a great prompt for exploring the **science** of how the position of the sun appears to change during the day, and why shadows change as a result.

Equipment

- A sunny day!
- Chalk
- String
- Clipboard, paper and pencil or camera to record the images
- Tape measure to measure the shadows

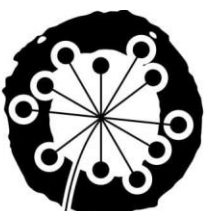
Activity

Plan the activity so that recordings can be made throughout the day – for example, before school, during break, within a morning lesson, at lunchtime and towards the end of the day. Working individually or in small groups pupils take a piece of chalk and trace around the shadow of their object at the different times of day. They may wish to use the same colour chalk throughout the day or different colours at different times. Where the shadow falls on to grass or other softer surface use string to mark the outline.

At the end of the day children should make an image (drawn or photographed) of the shape their shadows have created. They should also record some of the main dimensions to recreate the shadows in other forms – for example, using cardboard.

When returning to the classroom discuss why the images changed during the day – for example, in the middle of the day the shadows will be shorter because the sun is higher in the sky. You could recreate this effect using moveable lamps inside.

You could undertake this activity at different times of the year to see how the height of the sun in the sky affects the shadows formed.



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