## Shadow drawing

In this activity, children can explore the shape of shadows and how they change throughout the day.

Children can use objects or make a tin foil character to explore shadows. Find a sunny spot and place the object or tin foil character in the sun so that they cast a shadow on paper and draw the shadow. If children are doing this on a playground they can also use chalk to draw round the shadows.

Children could come back to their shadow drawing throughout the day and look at how it changes and think about why this is.

**Questions to explore:**

- What shape is the shadow?
- How did the shadow change throughout the day?
- When was the shadow smallest? Why might this be?
- Was the shadow always in the same place? Why might this be?

**Explanation:** As the Earth rotates, the sun appears to change position in the sky and is at its highest around noon. As the position of the sun gets higher in the sky, a shadow appears shorter. After noon, as the sun becomes lower in the sky, the shadow becomes longer. This simulation can be used to demonstrate this.

**Taking it further:** Children could create their own sundials. Check out the Teachstarter website for some instructions for how to do this with a paper plate.

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