

# STAGE 1 SCIENCE

## OUTDOOR ACTIVITIES TO LEARN ABOUT THE PHYSICAL WORLD

**Learning intention:** Activities are designed to engage students with the outdoors, identifying heat, light and sound energy and how forces can be used.

### Activity 1: Exploring sound

Find a ruler, wooden spoon or chopstick. Take the ruler (or similar object) and place it so that half is on the edge of a table and half is off the table. Hold the ruler firmly on the table with one hand and use your other hand to pull on the part of the ruler that is off the table. Let go and listen to the sound it makes. Can you make different sounds by moving the ruler so that more/less of it is hanging over the table edge?

Find another flat object made from different materials (plastic, wood, metal) and repeat the same activity. Does the sound change depending on the type of material that is being used?

**Extension activity:** Can you make a leaf vibrate? Choose a clean gum leaf or a long piece of grass. Pinch the leaf with your fingers and hold it in front of your mouth. Wrap your lips over the leaf and blow until the leaf starts to vibrate and buzz. This is tricky – it might not work straight away! If you are able to make a sound, you can alter it by changing where you put your fingers or your mouth. Remember not to share leaves to avoid spreading germs.

### Activity 2: Exploring light

Go outside and stand with the sun behind you. Can you see your shadow? Ask someone to stand beside you, then move behind and in front of you. What happens to their shadow?

Draw the outline of your shadow on paper or using chalk on a path/paved surface. Return at different times of the day and stand in the same position. How does your shadow change throughout the day? If possible, take photos of your changing shadow.

**Extension activity:** Find a large, shiny spoon – hold it up to your face with the inward curve facing away from you. Now move the spoon away from you slowly – does your reflection change? Can you see the background behind your face? Turn the spoon around and look at your face – what do you see?



### Activity 3: Flying circles

Cut out the rectangle below and snip along the dotted lines marked. Join the ends of the strip of paper to make a circle, connecting each end by overlapping the paper at the snipped dotted lines. Hold your circle above your head and let it fall. Watch how quickly it spins as it falls. Make two more circles from thicker and thinner paper. What happens? Which paper circle made the most spins? Which circle reached the ground first?

**Extension activity:** Can you make a paper plane? Ask for help to make a plane and see how far you can make it fly.