

# Starters for STEM

Starters for STEM are 10 activities that parents can use at home to help children develop their science, technology, engineering and maths skills. These activities are easy to resource and provide children with the stimulus to talk about the world around them. If you see a link you can explore how to extend these activities, you will need to sign up, for free, to access these materials. Don't forget to share your work on social media

## #ScienceFromHome

### Creepy crawly palace

Create a palace suitable for a minibeast! Discover how to make your micro-habitat here [http://www.treetoolsforschools.org.uk/activities/pdfs/pdf\\_minibeast\\_palace.pdf](http://www.treetoolsforschools.org.uk/activities/pdfs/pdf_minibeast_palace.pdf). Keep checking to see if anything moves in.

### Weather diary

Start a weather diary. Can you see any patterns after a week, month, season? Keep it going for as long as you can and compare the weather at different times of the year. Can you see any differences?

### Straw oboe

Try making a straw oboe. You will need a drinking straw and some scissors. Cut the end of the straw into an arrow shape and blow gently. Once you get a duck type sound try altering the length of the straw. What do you notice? <https://bit.ly/3berawB>

### Make a circuit

Using items you have at home can you make a model of an electrical circuit? What could you use for the wires, cell (battery) or buzzer? Can you add a switch? How would your switch be open or closed?

### Kite Building

What makes the best kite? Should it be flat or does a cylinder kite work too? Which material is the best? Make a kite and take it out on a walk on a windy day to test it.

### Making things move

Take a toy car, or any toy with wheels and give it a push on 4 different surfaces in your house or outside space. Which surface do you think the car will go furthest on? Try it out a few times to find out. Can you find any other ways to make your toy car move?

### .Perfect pets

Pets have basic needs which need to be met to survive and be healthy. Think about the things we provide for our pets. Which are essential for survival and health and which are not. Can you make a booklet explaining how to look after your pet or an animal you would like as a pet?

### Umbrella

What is the best material for an umbrella? From your kitchen collect some materials to test. It could be paper (kitchen roll), fabric (tea towel), metal (silver foil) or plastic (cling film). Come up with a test to decide which material would be best for an umbrella.

### Soil shakers

Find out what's in your garden soil. Put a layer of soil in an empty jar with a lid. Fill the jar about 3/4 full of water and put the lid on tight. Shake up the soil and water mixture. Leave the jar to settle. You should see different layers of materials. Can you work out what they are?

### Make fake blood

Do you know what is in blood? Can you make a model of blood in an empty bottle? You will need something for red blood cells (red plasticine?), white blood cells (mini marshmallows?), nutrients, plasma and platelets. You can find out more about blood here: <https://www.bbc.co.uk/bitesize/topics/zwdr6yc/articles/zqv4cwq>