

# 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

### Carnivore, herbivore, omnivore

What's your favourite animal? What does it eat? Is it a carnivore, herbivore or omnivore? What other animals fit into that group?

<https://www.bbc.co.uk/bitesize/clips/zwfd2p3>

### Build your own balance scale

Find a coat hanger, plastic ones work best. Tie a piece of string around each end of the hanger. The string needs to be the same length on each side. Attach a cup or a bucket to the end of each piece of string. Hang your balance up and you can now use it to compare the weight of lots of different things in your house.

### Shadows

What shadows do your toys make? Can you draw around the shadows with chalk? Do they look the same as the toy?

### Red cabbage indicator

Do you have some spare red cabbage? Or anything with red petals or red fruits? You can squash some and mix it with hot water to make an indicator to work out what in your house is an acid or an alkali.

**Caution needed** with household cleaning supplies. Fine with food stuffs and bubble baths or soap.

<https://www.stem.org.uk/rx33n2>

### Marble maze

Using a baking tray and plasticine or playdough, can you create a marble run to make a marble bounce down the tray when it is tilted? How long can you make your marble run?

### Brilliant bodies

What can your body do? Balance on one leg? Touch your nose with your tongue? Look at the body challenge cards and see how many you can do. Ask your family to join in and make your own body challenge cards.

<https://bit.ly/2yeXukg>

### Super sounds

Take two empty glass bottles or wine glasses. Fill them with different amounts of water. Tap the outside with a wooden spoon. Can you hear a difference in sound? Which one has a higher pitch? Try adding different amounts of liquid and see how the pitch changes.

<https://explorify.wellcome.ac.uk/en/activities/whats-going-on/bottle-orchestra>

### Dunking championships

Which biscuit do you think will be the best for dunking? Choose a few different biscuits and some cups of warm water. Dunk each biscuit in the cups in turn. Which lasts the longest without breaking?

### Mastering muscles

Muscles work in pairs. Watch this video to see how <https://www.stem.org.uk/rxzf7> Try some different body movements at home. Think about where we have pairs of muscles in the body and what they do?

### My school day: introducing computer science ideas

Introduce a number of computer science ideas through looking at a school day. You could even change this to my lockdown day to make it even more relevant!

<https://www.stem.org.uk/rxcwye>