

# 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

### Make some butter

You will need some full fat milk and a clean jar with a lid. Shake the milk in the jar. You'll need to do this for quite a long time. After a while you should feel there is a solid forming. This is butter. What does it taste like?

### The world's largest steel structure

The Bird's Nest is the world's largest steel structure and was built in China for the 2008 Olympic Games. It is made out of 26 miles of steel.

Use strips of paper, card or wool to create your own birds nest style building. You might like to search for photos of the 'Birds nest' to help you with your design.

### Mission X – Astro agility course

Complete an agility course to improve movement skills, co-ordination, and speed. Record your speed and see if you can get faster with practise.  
<https://bit.ly/2z4AQLZ>

### Snail inheritance

After it has been raining have a look in the garden or out on the local paths. Can you see any snails? Have a look at the patterns on their shells? What do you notice? Are there any with similar patterns? Snail shell patterns are inherited from their parents. Can you find a potential family of snails? How many different shell patterns can you spot?  
<https://www.stem.org.uk/rx33o6>

### Rose Mitchtom and Margarette Steife

Over 120 years ago two women came up with the idea to make a teddy bear. Collect all your teddy bears. Are they all the same? What do you think makes a good teddy bear? If you were going to invent a new teddy bear what would it look like?

### Design a sports kit

Design a sports kit suitable for a sport you choose. Think about the type of material you will use and why you have used it.

<https://explorify.wellcome.ac.uk/en/activities/problem-solvers/design-a-sports-kit>

### I'm Alive!

You're alive! How do you know? What are the features of being alive? Are these the same in other living things, such as a plant? Look around your home. What things can you find that are alive, were once alive and were never alive?

<https://www.stem.org.uk/rx33qh>

### Mirror writing

Put a piece of paper in front of a mirror. Without looking at the paper, look into the mirror and try to write your name on the paper. Is it difficult? Why do you think this is?

### Silly shapes

Find or make some playdough. How many different shapes can you make by squashing, bending, twisting and stretching your dough?

### What the Ladybird Heard

In the storybook 'What the Ladybird Heard', the Ladybird helped the farm animals by carefully listening to the sounds she heard in the farmyard. In the story the two thieves have a map of the farm with all the animals on it and they work out where they are by listening to the sounds the animals make.

Can you make a map of your house or garden and add all the sounds you hear? If you had to direct someone round your map what sounds would you tell them to listen out for?