## 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. Theses 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**

#### **Brilliant bodies**

Try testing your body by seeing how long you can balance for or make a reaction tester to see how good your reactions are. Download a reaction tester here. https://bit.ly/3cp0FED

https://bit.ly/2K3Tnu9

# Which chocolate melts the quickest?

Place some white chocolate buttons and some milk chocolate buttons on a plate and leave them in the sunshine.

Which one do you think will melt first? Are there other chocolate you could test? Can you solidify the chocolate so you can eat it?

https://bit.ly/36zMB9Hf

#### Natural art

Collect a few leaves or petals from your garden. Place them between 2 pieces of paper or a piece of spare white material. Using a stone bash the leaves and petals through the paper. When you open up the paper or material what do you see?

#### World's tallest tower

In 2020 the new world's largest tower will be the Jeddah Tower, in Saudi Arabia. It will have 200 floors and will the reach 1008 meters high.

Use scrap paper and junk box materials to build a tower. You might like to search for photos of the 'Jeddah Tower' to help you with your design.

What is the tallest tower you can build?

#### Melting coloured ice

Freeze some ice cubes that you have coloured different colours using food colours. Take them out of the freezer and put them all in the same place. Which one do you think will melt first? Why?

https://www.stem.org.uk/ rx33mj

### Using your senses

Put some objects, such as a hairbrush, a tube of toothpaste, a packet of biscuits, an ice cream scoop, a packet of tissues and a wooden spoon into a bag. You will also need something to act as a blindfold. Use your senses to feel what is on the bag. Play with a partner and see who guesses most of the objects.

#### **Heart beaters**

Can you tickle yourself?

How many litres of blood do you have in your body?

How many times does your heart beat in a day?

Test your family with a body trivia quiz.

Create your own cards or download some from here: https://bit.ly/2RFJVRN

#### Keeping cold drinks cold

Which cup is best at keeping your cold drink cold in the summer? A glass, a mug or a plastic cup?

Place an ice-cube in your drink and see which one stays frozen the longest. What other cups could you test? https://bit.ly/3c4kIND

#### Floaty boats

Using just 1 sheet of paper and some paperclips design a raft that will hold as many coins or marbles as possible.

You can download the activity card here to help you. https://bit.ly/34E7YWs

#### Building a bionic hand

It is difficult and tiring for humans to work in space. Bionic hands that can be remotely operated can help humans work more efficiently in space. Try making a model bionic hand using cardboard, straws, string and elastic bands. You will need to think about how a human hand works to help you with your design. https://bit.ly/2XDvx0i

Sign up to Mission X resources here: <a href="https://www.stem.org.uk/missionx">https://www.stem.org.uk/missionx</a>