

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

Gestation periods

How long are humans pregnant for? The time an animal is pregnant is a gestation period. Research other animals' gestation periods. Are they the same as humans? Which animal has the longest gestation period? Which has the shortest?

www.stem.org.uk/rx34kx

What can you smell?

Explore some of the things in your house/ garden with your nose. What can you smell? Do they smell flowery, fruity, spicy or herby?

Help the Gingerbread Man

The Gingerbread man can't get across the river to escape being eaten, can you help him? What can you build to get him across the water?

www.stem.org.uk/rx353j

Bird detectives

What birds do you get in your garden or in your local area? Sit quietly in your garden, looking out of your window or in a green space on your walk. What birds do you see? Can you identify them from these spotter sheets?

www.stem.org.uk/rxes74

Solid, liquid or gas?

Can you find things in your house that are a solid, a liquid or a gas.

List at least 3 things for each. Are there any that you find tricky to say which they are?

www.stem.org.uk/rx34mg

Painting with water

Get a bowl full of water and a brush. A decorators brush is great for this. Paint the pavement or the walls outside. Can you write your name?

What happened to the water? Did the colour of the wall/ pavement/fence change? Did the pavement stay 'painted'?

Catch a rainbow

Pour some milk into a bowl and carefully put three drops of red colouring into one side. About a third of the way around put three drops of blue food colouring and another third of the way around put three drops of yellow food colouring. Do this very carefully, without moving the bowl, so that the three colours do not mix. Next squeeze a drop of washing up liquid into the centre of the bowl and record what you see.

www.stem.org.uk/rx33n2

Be a 'dengineer'

Natural disasters can leave people homeless. Your challenge is to creatively engineer a structure that stands and that people could safely use to sleep in. You can use materials sourced from your home and garden. Test it and then think how you could make improvements.

www.stem.org.uk/rx5mcs

Ice cube conundrum

What material would keep an ice cube frozen for the longest amount of time? Can you come up with a simple investigation to test your ideas at home?

www.stem.org.uk/rx32h8

Changing shadows

Use an old cardboard box to cut out a shape of an animal, (anything you choose). Hold it in front of a light, like your bedside light or a torch. Is the shadow bigger or smaller than the cardboard animal? Try and make the biggest and smallest shadows that you can. How did you do this?

www.stem.org.uk/rxxxx