

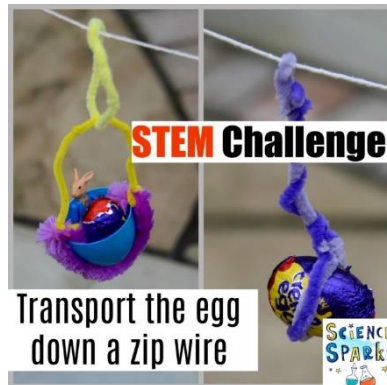
Family Easter Science Projects and Quizzes

The Science department have put together a range of STEM related projects for you and your family to have a go at over the Easter break. You can choose to complete one activity or have a go at them all. Have a competition between yourselves, take pictures and make memories. If you prefer, have a go at the STEM quizzes instead with your family. If you complete the quizzes, you need to try the Level 2. Enjoy!

If you would like to share the pictures of your projects, please email them to l.berrisford@jcbacademy.com. Prizes will be given out when we return to the Academy!

Happy Easter from the Science Department ☺

Project 1 - Eggy Zip Wire



Can you build a harness to transport an **egg down a zip wire**? This is a great activity for learning about friction. Try changing the type of string used to make the zip wire or change the weight of the egg to investigate. Who was the fastest? If you don't have eggs spare, don't worry, use different objects instead.

- You will need:
- String (for the zip wire)
- Pipe cleaners
- Yummy eggs

Some questions to get you thinking:

- What forces are involved in an object moving down a zip line? (Friction, gravity, etc.) ■
- How are zip lines used today? (Tourism, biological surveys.) ■
- What else could they be used for?

Project 2

SAVE THE EGG

Can you wrap an egg so well that it survives a drop? The challenge is to design a contraption using various materials (usually recyclables) to protect a raw egg (or chocolate egg) from a high fall.



This is a great activity learning about gravity.

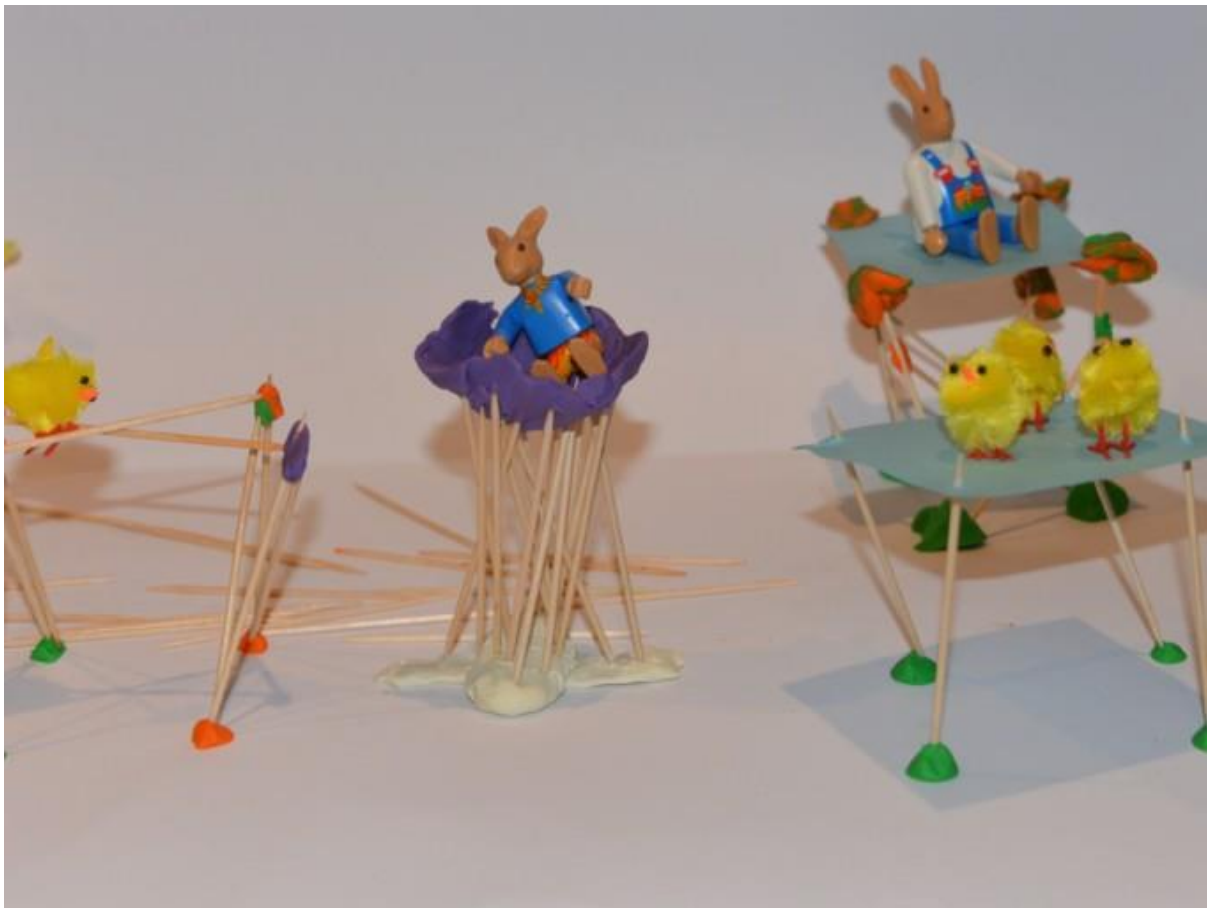
You will need:

- Raw eggs (or chocolate eggs)
- Range of recyclable materials
- Tape
- Cloth to clean up the mess

Project 3

EGGY TOOTHPICK TOWERS

Can you **build a tower** strong enough to support an egg using just toothpicks and plasticine or marshmallows?



You will need:

Tooth picks

Marshmallows or plasticine

Chocolate eggs

Project 4

CATAPULT AN EGG

Can you build a **craft stick catapult** to catapult a plastic egg? We've been making egg shaped targets to shoot the eggs through too! This experiment won't really launch you into space, but it will certainly help show energy, gravity and the Laws of Motion at work.



You will need:

Craft sticks/lolly pop sticks

Elastic bands or string

Plastic spoons or use a plastic lid from a bottle

Mini Easter eggs

Take two **craft sticks** and stack them together. Wrap one rubber band (string) around one end of these two **sticks** to hold them together. Pull the two **craftsticks** slightly apart and place the larger stack of **sticks** in between the two. Attach the larger stack to the **stick** on the top using a rubber band. Hey presto, who can launch the egg the furthest?