

Explore the incredible mathematical innovations that surround us every day, with challenges to do as a class or to try at home.

### Seek and find

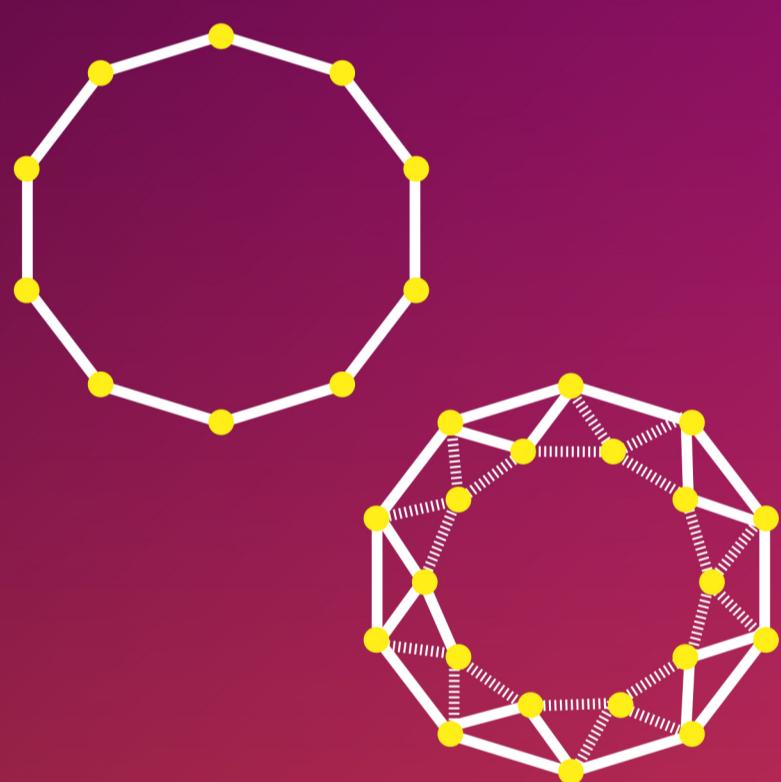
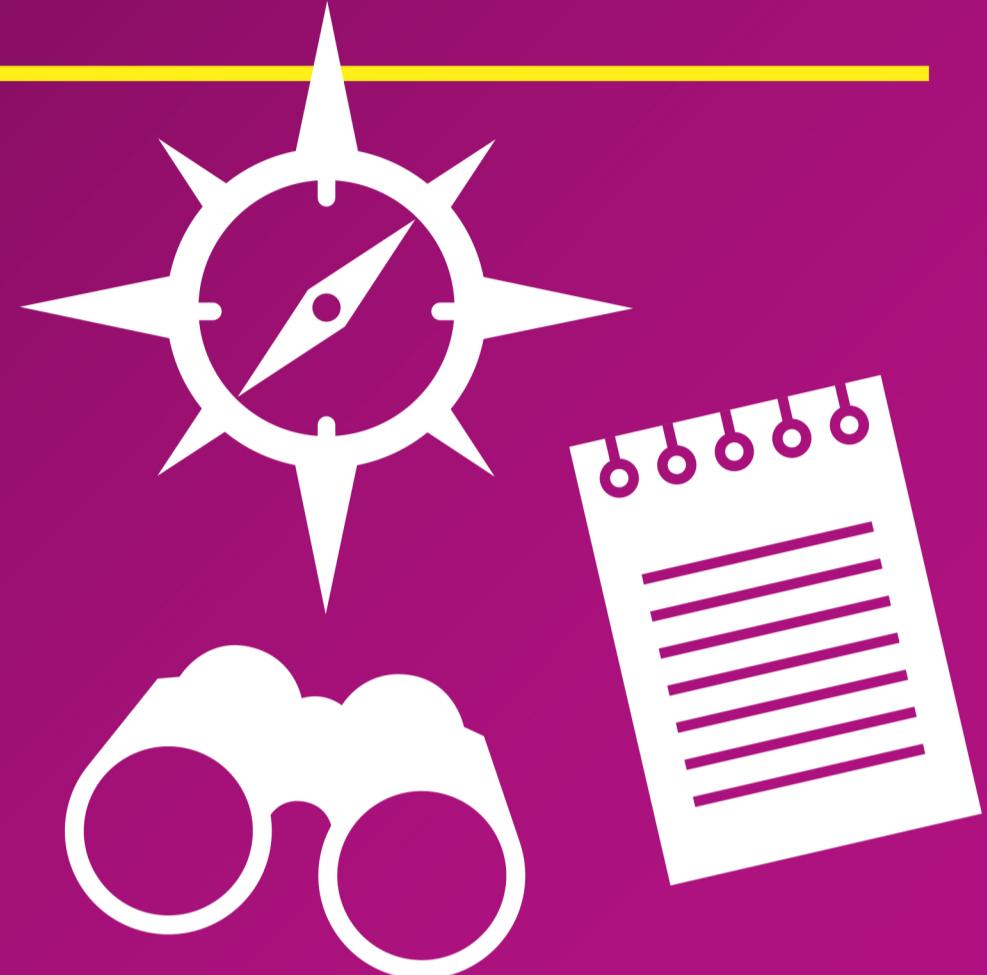
Use your observation and questioning skills to explore how maths shapes our lives. Search your classroom or backpack and find something...

That has an interesting pattern

That is a simple solution to a complex problem

Now, share with a partner and explain why you chose it.

⌚ 5–10 minutes



— = Long straw  
— = Short straw  
● = Sticky tape

### Try this

Can you build a self-supporting dome?

In this activity drinking straws are used as members to create the dome, so grab some straws, scissors and sticky tape to get started. You'll need 35 long straws at 13cm and 30 short straws at 11cm. Follow the steps in the diagram to start building your dome.

Why doesn't the structure fall down?

Can you make a dome using shapes different to the one in the picture?

Download the *Build a Dome* resource at  
[sciemcemuseumgroup.org.uk/resources](http://sciemcemuseumgroup.org.uk/resources)

⌚ 45 minutes

### Think and talk about

Why is creativity so important in maths?

Our museums are filled with scientific and mathematical creations that have transformed the way we live our lives. Discover Charles Babbage's Analytical Engine in *Mathematics: The Winton Gallery* at the Science Museum.



The Science Museum Group have five museums across the UK: Science Museum, London; Science and Industry Museum, Manchester; Railway Museum, York; Science and Media Museum, Bradford; Locomotion, Shildon