

MathsCity Schools Workshops

MathsCity is an ideal space to explore freely. When schools visit, we recommend giving students between 1 hour and 1 hour 15 minutes to engage with the exhibits. School groups often want to extend their visit to include a workshop, which makes the whole visit 2 hours. The workshops are delivered by our fantastic team of mathematical enablers. Details of the available workshops are below.



Big Build! Suitable for Yr4-Yr11

The Leonardo Dome is a self-supporting structure. No nails needed as the maths of patterns keep the structure together. Different tessellations can be explored in groups before the enjoyment of destruction.







Bubble Geometry Suitable for Yr 4 – Yr 9

In this workshop students explore the fascinating Geometry of Bubbles. With physical experimentation, students answer different questions and explore: when a bubble can be a straight line; when the minimal surface area is not a sphere and how to make a saddle point. Bubble Geometry has practical applications in architecture and design and is a great topic to show the practical and beautiful side of mathematics.



Mathematical Games Suitable for Y7-Y12

Flex your problem-solving skills and strategic thinking, play some simple mathematical games and learn how to use your new-found strategies to beat your friends and family.



Code breaking Worksop Suitable for Yr7 - Yr13

Students make and break codes and see how mathematics underpins all aspects of the coding arms race.

The session starts with simple picture based codes which can be cracked with brute force before moving to more sophisticated codes with many millions of keys. Harder codes are cracked with frequency analysis.

Depending on the age of the group, extra topics including binary and error correcting algorithms, are introduced.



These workshops were developed with the generous support of the International Centre for Mathematical Sciences.

