Museum Maths
Key Stage 3

Explore the museum and describe nature using the language of maths: the symmetry of a dragonfly, the spiral of an ammonite shell, the structure and form of minerals in the ground. This hands-on workshop encourages students to develop and apply their mathematical skills to understand and appreciate the natural world.

Length of Session:
90 minutes

Maximum group size:
Each workshop has a maximum capacity of 30 students accompanied by 2 members of staff

This session is based on the following curriculum themes:

- Students should have the opportunity to develop a deeper understanding of a range of scientific and mathematical ideas in the subject disciplines of biology, chemistry and physics.
- Students should begin to see the connections between these subject areas and become aware of some of the big ideas underpinning scientific knowledge and understanding.

Session outline

Part 1: Students study the museum building and use mathematical language to describe its architectural features.

Part 2: Students focus on a number of mathematical ideas from part 1 and look for examples of form and pattern in nature.

Part 3: Students work in groups to interpret and explain their observations.

Museum of Natural History

Learning outcomes

- Students recognise examples of form and pattern in nature e.g. radial and bilateral symmetry.
- Students can explain how form and structure in nature are determined by key ideas in biology, physics and chemistry.
- Students take an active interest in the natural world through their access to museum specimens.

Suggested pre- and post-visit work

Make a compilation of images of symmetry, fractal patterns, tessellations and spirals in nature and organise the examples you find into groups. Use the images as inspiration for a piece of artwork.

For more information...

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