



NO FEE* Earth Science Teacher CPD

Curriculum for Excellence: Social Studies and Science Workshops

Workshops available	Level	Ages	Stages
Scotland Rocks!	Early to First Level	3 - 8/9	Pre-school – P4
Scotland's Rocky Journey	Upper Primary Second Level to Lower Secondary Third Level	8 - 12	P5 – S1
Scotland on a Plate	Secondary Third Level to Fourth Level	12 - 15/16	S2 – S4

Scotland Rocks!

This cross-curricular workshop introduces ways of helping children to study rocks in the world around them and begin to recognise the amazing stories they can tell about Scotland's geological past. Hands-on activities show how children can learn to find, describe and classify common local rocks, and to simulate processes involved in their formation. These activities are designed to create opportunities for developing a range of language, scientific and creative skills. In addition, they help pupils to study the many different properties of rocks and lead naturally into investigations of landscape-forming processes.

The final workshop activity draws all these ideas together and demonstrates how Scotland's wonderful variety of physical environments is directly related to the diversity of the rocks that underlie them.

Scotland's Rocky Journey

Following the same methodology as the introductory workshop above, the series of practical activities introduced in this second workshop is designed to extend pupils' understanding of the processes that have created Scotland's diverse landscapes. Using simple simulations, they learn how to link all of Scotland's rocks into a series of processes that together form the Rock Cycle. Some of these processes act very quickly and some very slowly, but together a whole cycle takes millions of years. Each process produces a new product, and the products are the rocks that together have built Scotland.

The final workshop presentation describes how James Hutton made detailed observations of rocks in various parts of his native Scotland 250 years ago and cleverly applied scientific reasoning to deduce the existence of the rock cycle. This brought a major scientific breakthrough and laid the foundations of our modern understanding of the planet we live on.

Scotland on a Plate: understanding Scotland's rocky journey

This third workshop in the series gets to grips with the wide-ranging evidence for the theory that underpins our detailed modern understanding of our dynamic planet - the theory of Plate Tectonics. Since Scotland has contributed so much to the science of geology, it is important that Scottish school pupils should be given the opportunity to study this remarkable example of Science 'in action'. The workshop begins with an introduction to the main features of the theory and progresses through a series of activities that are designed to help pupils study and understand the theory. In particular it considers several independent sources of evidence, for the movement of plates including using climatic data from sedimentary rocks, igneous rock patterns, fossil evidence, seismic records, geothermal patterns, geomagnetism, and large-scale topographical features, both above and below sea-level. The workshop concludes with a reconstruction of plate movements over the past 450 million years which explains in perfect detail the record contained in Scotland's rocks - of an amazing journey across the face of our planet.