

**KS4 Variarion, inheritance and evolution**  
**Classroom-based activity**

## Rock record

Fossils have the power to fascinate. Preserved in rock, they are a tangible record of a distant past that might otherwise exist only in our imaginations. Who could have imagined creatures such as the dinosaurs without seeing their fossils?

For this activity, challenge your pupils to create a fossil record for an alien world. Using the evolution of specific creatures here on Earth as a basis for comparison (the bird would be a very useful starting point), invent a small number of imaginary yet realistic alien creatures. Assign groups to examine one of each of these creatures.

Suggest that your pupils discuss the various stages that their creature is likely to have passed through as it evolved over millions of years. Key questions to consider are:

**What were the environmental pressures on this creature?**

**What sort of predators did it face?**

**Did it suffer as a result of a cataclysmic event, such as a large asteroid strike?**

**Was it wiped out as a result of natural changes to its habitat?**

**Did a new and better adapted predator arrive on the scene or does this alien creature continue to thrive?**

Having established a natural history for the creatures, get your pupils to create a fossil record for each using plaster of Paris for the fossils and modelling clay for the moulds.