



KS4 Variation, inheritance and evolution
Exhibition-based activity

Going the Distance

The Science of Aliens exhibition offers the opportunity to examine the development of life on this planet over the last 500 million years or so. In particular, an examination of the development of life in the world's oceans presents the chance to view creatures more "alien" than anything in science fiction. In some cases these lifeforms evolved into familiar creatures while others represent an evolutionary dead end.

Find the display on life in the oceans and challenge your pupils to discover for themselves the ways in which variation and selection may lead to the evolution – or extinction – of entire species by posing the following questions:

Some creatures, such as those living around deep sea vents, have evolved in very specialised ways. What chance would they have of surviving in the kind of environments in which we humans thrive?

Examine the sea creatures display. Can you find one creature that has evolved over time and is still with us today and one that failed to go the distance? What were the deciding factors in the fates of these two creatures?

Find five creatures that are perfectly suited to life in extreme (to us) environments in the oceans. As a human, what equipment would you need so that you could survive in the same environment?