DISCOVERING GALAPAGOS

KS3 SCIENCE

Curriculum link: Genetics and evolution (adaptation of species)





ADAPTING TO VARIOUS ENVIRONMENTS LESSON PLAN

Introduce your students to adaptation of species. This section focuses specifically on adaptations of the land and marine iguanas, as well as the Galapagos giant tortoise. Students will choose a case study species of their own to explain how they have adapted to their environment.

Resources required: Iconic Island Reptiles BBC video clip, paper for making storyboards

1. FIRE STARTER

Watch this video clip from the BBC which provides an introduction to adaption of marine and land iguanas and giant tortoises in the Galapagos Islands. Students should be prompted to identify ways in which different species adapt to their environment. (Video web address:

http://www.bbc.co.uk/nature/life/Marine_Iguana#p00 3b9cb)

2. GAINING GROUND

The video should be used to begin a discussion about how species adapt. Students should design a storyboard to show how a particular species has adapted to the environment in the Galapagos Islands. Storyboards should document how the species has adapted to their environment highlighting both the importance of environmental influences and genetic variation.

3. MAKING WAVES

Students to share their storyboards with others, explaining how their chosen species has adapted to the environment presented in Galapagos and how this leads to genetic variation.

4. FUTURE FOCUS

Students should research how other species on the Galapagos Islands may adapt. They could also research other environments around the world where species have had to adapt to extreme environments such as polar regions or deserts.

LEARNING OBJECTIVES

- To know that species adapt to their environment, and to know that some species that are less well adapted to compete and successfully reproduce may become extinct.
- To investigate a chosen species and consider its adaptations.
- To understand adaptations of animals in extreme environments.

STUDENTS' OUTCOMES

- To explain how their chosen species has adapted to its environment.
- To explain the environmental conditions of their chosen species.
- To explain how less well adapted species may become extinct.

