

Biological Diversity

BIO11-10

4 inquiry questions • 10 dot points

1 How do environmental pressures promote a change in species diversity and abundance?

- predict the effects of selection pressures on organisms in ecosystems, including:...
- investigate changes in a population of organisms due to selection pressures over time, for example:...

2 How do adaptations increase the organism's ability to survive?

- conduct practical investigations, individually or in teams, or use secondary sources to examine the adaptations of organisms that increase their ability to survive in their environment, including:...
- investigate, through secondary sources, the observations and collection of data that were obtained by Charles Darwin to support the Theory of Evolution by Natural Selection, for example:...

3 What is the relationship between evolution and biodiversity?

- explain biological diversity in terms of the Theory of Evolution by Natural Selection by examining the changes in and diversification of life since it first appeared on the Earth
- analyse how an accumulation of microevolutionary changes can drive evolutionary changes and speciation over time, for example:...
- explain, using examples, how Darwin and Wallace's Theory of Evolution by Natural Selection accounts for:...
- explain how punctuated equilibrium is different from the gradual process of natural selection

4 What is the evidence that supports the Theory of Evolution by Natural Selection?

- investigate, using secondary sources, evidence in support of Darwin and Wallace's Theory of Evolution by Natural Selection, including but not limited to:...
- explain modern-day examples that demonstrate evolutionary change, for example:...