**Topic Overview: Evolution**

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| Flightpath | Ref | Outcome | Achieved | ☺ |
| Emerging | E9SbE1.1 | Know what extinct means |  |  |
| E9SbE1.2 | Know ways an animal is adapted to surroundings |  |  |
| E9SbE2.1 | Explain with examples how organisms can become extinct |  |  |
| E9SbE2.2 | Recall how a polar bear and a camel are adapted to their surroundings  |  |  |
| Developing | D9SbE3.1 | Use evidence to explain why a species has become extinct or adapted to changing conditions. |  |  |
| D9SbE3.2 | Know who Charles Darwin is and 2 facts about his voyage  |  |  |
| D9SbE4.1 | Know that within a species variation helps against environment changes, avoiding extinction |  |  |
| D9SbE4.2 | Recall the theory of evolution |  |  |
| Securing | S9SbE5.1 | Explain what biodiversity is and how it is vital to maintaining populations |  |  |
| S9SbE5.2 | State the evidence for natural selection |  |  |
| S9SbE6.1 | Explain how preserving biodiversity can provide useful products and services for humans. |  |  |
| S9SbE6.2 | Understand that natural selection is a theory that explains how species evolve and why extinction occurs |  |  |
| Mastering | M9SbE7.1 | Suggest how a lack of biodiversity can affect an ecosystem |  |  |
| M9SbE7.2 | Explain how natural selection can produce a new species if 2 populations of same organism become separated |  |  |
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| M9SbE8.1 | Suggest an explanation, based on data, for how a particular evolutionary change occurred.  |  |  |
| M9SbE8.2 | Evaluate whether evidence for a species changing over time supports natural selection. |  |  |
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| M9SbE9.1 | Evaluate ways of preserving plant or animal material for future generations |  |  |
| M9SbE9.2 | Predict and explain the changes in a population over time due to natural selection.  |  |  |

**Keywords**

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| **Population:** Group of organisms of the same kind living in the same place. |
| **Natural selection:** Process by which species change over time in response to environmental changes and competition for resources. |
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| **Extinct:** When no more individuals of a species remain. |
| **Biodiversity:** The variety of living things. It is measured as the differences between individuals of the same species, or the number of different species in an ecosystem. |
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| **Competition:** When two or more living things struggle against each other to get the same resource. |
| **Evolution:** Theory that the animal and plant species living today descended from species that existed in the past. |