**Topic Overview: Interdependence and Variation**

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|  | Ref | Outcome | Achieved | ☺ |
| Emerging 1 | E7SbI1.1 | To know what a food chain is |  |  |
|  | E7SbI1.2 | To know why a key is useful |  |  |
|  |   |   |  |  |
| Emerging 2 | E7SbI2.1 | To be able to identify key parts of a food chain eg prey, predator |  |  |
|  | E7SbI2.2 | To be able to use a key to classify |  |  |
|  |   |   |  |  |
| Developing 3 | D7SbI3.1 | Combine food chains to form a food web. |  |  |
|  | D7SbI3.2 | To be able to construct a key |  |  |
|  |   |   |  |  |
| Developing 4 | D7SbI4.1 | Use a food web to make predictions |  |  |
|  | D7SbI4.2 | To know what environmental variation is |  |  |
|  |   |   |  |  |
| Securing 5 | S7SbI5.1 | Describe how a species’ population changes as its predator or prey population changes. |  |  |
|  | S7SbI5.2 | To explain how environmental variation can cause problems with classification |  |  |
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| Securing 6 | S7SbI6.1 | Explain how the population of a species is affected by the number of its predators and prey, disease, pollution and competition between individuals for limited resources such as water and nutrients. |  |  |
|  | S7SbI6.2 | Explain whether characteristics are inherited, environmental or both |  |  |
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| Mastering 7 | M7SbI7.1 | Know that variation between individuals is important for the survival of a species, helping it to avoid extinction in an always changing environment |  |  |
|  | M7SbI7.2 | Explain how sexual reproduction causes inherited variation |  |  |
|  |   |   |  |  |
| Mastering 8 | M7SbI8.1 | Describe how organisms in a food web (decomposers, producers and consumers) depend on each other for nutrients.  |  |  |
|  | M7SbI8.2 | To be able to identify normal distribution  |  |  |
|  |   |   |  |  |
| Mastering 9  | M7SbI9.1 | Suggest why there is variation between individuals of the same species. |  |  |
|  | M7SbI9.2 | Suggest variations caused by both genetic and environmental factors |  |  |

**Keywords**

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| **Food** **web:** Shows how food chains in an ecosystem are linked. |
| **Food** **chain:** Part of a food web, starting with a producer, ending with a top predator. |
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| **Ecosystem:** The living things in a given area, and their non-living environment. |
| **Environment:** The surrounding air, water, and soil where an organism lives. |
| **Population:** Group of the same species living in an area. |
| **Producer:** Green plant or algae that makes its own food using sunlight. |
| **Consumer:** Animal that eats other animals or plants. |
| **Decomposer:** Organism that breaks down dead plant and animal material so nutrients can be recycled back to the soil or water. |
| **Species:** A group of living things that have more in common with each other than with other groups. |
| **Variation:** The differences within and between species. |
| **Continuous variation:** Where differences between living things can have any numerical value. |
| **Discontinuous variation:** Where differences between living things can only be grouped into categories. |