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| Skills and Knowledge |
|  | Question | Answer |
| 1 | How would you describe a common animal life cycle, using the vocabulary: birth, growth, development, reproduction, death? | These describe the stages of the life cycle of all animals. Although these stages are common to all animals, they vary among species. For instance, while insects, birds and reptiles are born from an egg, mammals develop as embryos inside the mothers' bodies. |
| 2 | How would you describe a common plant life cycle, using the vocabulary: growth, reproduction, death? | Plant life cycle describes the various stages of plant life. The main stages in the life cycle of a plant are seed germination, seedling formation, growth, development and differentiation leading to a mature plant, pollination and fertilisation and the formation of fruit and seeds |
| 3 | What similarities and differences could you use to classify animals into different groups? | Animals can be classified by looking at the similarities and differences between them. Animals are divided into two main groups. Those that have a backbone, vertebrates and those that don't have a backbone, invertebrates. |
| 4 | What similarities and differences could you use to classify plants and micro-organisms into different groups? | Plants are divided into those that reproduce without seeds and those that reproduce with seeds. Seed plants are divided into those that produce seeds in cones and those that produce seeds in the ovaries of flowers. |
| 5 | How do some plants and animals reproduce? | Sexual Reproduction: This requires male and female parts and happens in both plants and animals. The new creature has some of the characteristics from both parents. Asexual Reproduction: This happens only in plants and is when a new plant is grown from a small part of a single parent. |
| 6 | What changes take place in a human from birth to old age? | The stages of a human life cycle are baby, toddler, childhood, adolescence, adulthood, and old age |
| 7 | How do diet, exercise, drugs and lifestyle impact on the way the human body functions? | Diet and exercise are both important for health. Exercise provides many benefits that help sustain your results. Both exercise and diet can help reduce heart disease risk, build muscle, and improve your mental health. |
| 8 | How are nutrients and water transported within animals and humans? | The circulatory system transports water and nutrients around the body. Not all animals have the same system though |
| 9 | How would you describe the process of evolution and inheritance in relation to plants? | Living things have changed over time and produce offspring of the same kind, but normally offspring vary and are not identical to their parents. |
| 10 | What do plants have in common with other living things? | Plants and animals are living things. They feed, respire, excrete, grow, move, reproduce and are sensitive to their environment. |

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| Key Vocabulary |
|  | Word | Definition |
| 1 | germination | the sprouting of a seed, spore |
| 2 | fertilisation | occurs when 2 sex cells fuse together. In nature, the main goal of any animal or plant is to reproduce to make the next generation of its species |
| 3 | circulatory | system that contains the heart and the blood vessels and moves blood throughout the body |
| 4 | ovaries | a pair of female glands in which the eggs form and the female hormones estrogen and progesterone are made |
| 5 | adolescence | the phase of life between childhood and adulthood |



**Knowledge Organiser for: Science-** **What lives alongside us? Term: 6 Year group: 4/5**

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| Interesting facts  |
| 1 | Nobody knows how many species of insects exist; estimate range from a few million to over 30 million. |
| 2 | The largest and heaviest creature that has ever lived is the blue whale. It weighs 150 tons and can be up to 30 m long and it is still alive today. |
| 3 | Flowers can hear buzzing bees. |
| 4 | Flowers are thermogenic and can generate heat to attract pollinators. |
| 5 | The Elephant grass found in Africa is named so as it is 4.5 meters high and even elephants can hide in it! |

