Biology

Year	Module	Plants
1	6: Identifying plants and their parts	The names of the parts of a flowering plant that grow above the ground are stem, leaf and flower.
		Roots grow under the ground and different plants have different roots.
		Some trees are flowering plants which have roots, stems, leaves and flowers. There are differences between deciduous and evergreen trees.
		There are similarities and differences between flowering plants.
2	3: Growing seeds and bulbs	Germination is when a seed starts to sprout and grow.
		Seeds need certain conditions to germinate. All require water, some require warmth, and most do not need light.
		Seeds come in a variety of sizes. The size of the seed does not determine how tall the mature plant that grows from it will be.
		Mature plants can grow from either seeds or bulbs.
	6: Growing healthy plants	Seeds germinate into seedlings and then grow into mature plants.
		Mature plants need light and water to grow healthily.
		Different mature plants require different temperatures to grow healthily depending on the type of plant.
3	5: Flowering plants and plant growth	Leaves capture sunlight. The energy from the sunlight is used to produce the plant's food. Some of this food is used to make the plant grow.
		Roots anchor the plant into the soil. Roots absorb water and minerals from the soil. This water is transported to the leaves and flowers via small tubes within the stem. The stem also provides support for the plant and holds the leaves and flowers up.
		Leaves have tiny holes in them which allow air into the plant. The energy from the sunlight is used to turn air and water into the plant's food.
		When plants are overcrowded, they compete with each other for sunlight, water and nutrients. Plants which are able to get more sunlight, water and nutrients will grow faster and bigger than the others.
		Different plants live in different habitats. Plants are adapted to the habitat that they live in.
	6: Flowering plants life cycle	The flower produces the plant's seeds.
		A flower has: a female part (called the carpel) which includes the ovary, which contains ovules; male parts (called stamen) which produce pollen; petals which surround the male and female parts; and sepals which cover the flower when it is in bud.
		Pollination is when the pollen from one flower is transferred to another flower. Animals, called pollinators, can transfer the pollen.
		Some flowers' pollen is transferred from one plant to another using the wind.
		After pollination, a fruit develops from the flower. The ovary swells up and becomes the fruit. Fruits contain at least one seed.
		Seeds are moved away from the plant that produced them, and this is called seed dispersal. They are moved away so they do not compete for space, sunlight, water and nutrients.
		Seeds are dispersed by wind, water, animals eating fruit, seeds becoming attached to an animal, and through explosions of a seedpod (fruit).
5	4: Plant and animal life cycles	All living things have a life cycle which includes growth and reproduction, eventually ending in death and decay.
		Flowers contain male sex organs called stamen and female sex organs called carpel.
		Pollen must be moved to a part of the carpel called the stigma for reproduction to take place. This process is called pollination.
		Seeds are the product of sexual reproduction. They are genetically different to the parent plants.
		Asexual reproduction creates plants that are genetically identical to the parent.