Biology Sticky Knowledge Progression

(KSVs to Sticky Knowledge and Vocabulary)

Year group / title / term	Biology Sticky Knowledge							Vocabulary (most important for K Mat – not limited)
In KS1 pupils should be taught to: •				In KS2 pupils should be taught to: •				
Year Groups	Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5	Lesson 6	Assessment	Vocabulary
F1 Pent 1 Lent 2 Advent 1 Ongoing/Pent 1 Pent 1	**<u>Understanding the World – Knowledge exposed to</u>** **Animals, Including Humans:** • Begin to understand the key features of the life cycle of an animal • Identify, name and begin to describe some farm animals • Identify and name basic body parts **Plants:** • Understand that plants grow and decay Begin to understand the key features of the life cycle of a plant – (potatoes, tomatoes, beans – edible school).							Egg, Caterpillar, Cow, Pig, Sheep, Horse, Eyes, Mouth, Ears, Nose, Head, Arm, Leg, Grow, Cress, Apple, Mouldy, Sunflower, Plant, Leaf, Seed, Vegetable, Potatoes, Tomatoes, Beans
F2 Advent 2 Pent 1 Pent 1 Pent 1 Pent 2 Ongoing	**<u>Understanding the World – Knowledge exposed to</u>** **Animals, Including Humans:** • Describe what they see, feel and hear - Recognise, name and describe animals - Recognise, name and describe mini-beasts, including their habitats • Understand the key features of the life cycle of an animal • Understand the key features of the life cycle of a human **Plants**: • Describe what they see, feel and hear - Recognise, name and describe familiar plants - Recognise, name and describe familiar trees in our environment							cat, dog, bird, fish, lizard, paw, tail, wing, scales, fin habitat, worm, ladybird, snail, caterpillar, butterfly, spider frog, tadpole, frogspawn baby, toddler, child, teenager, adult, elderly, daffodils, lavender, rosemary, bean, root, leaf, stem silver birch, oak, sycamore, pine tree

Y1 Animals, including humans (Lent 1 &2)	identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.	identify and name a variety of common animals including fish (goldfish, clownfish, minnow, carp), amphibians (frogs, newts, toads), reptiles (grass snake, adder, bearded dragon, crocodile) birds (robin, blackbird, magpie, pigeon, wagtails) and mammals (horse, cow, pig, dogs , cats)	identify and name a variety of common animals including fish (goldfish, clownfish, minnow, carp), amphibians (frogs, newts, toads), reptiles (grass snake, adder, bearded dragon) birds (robin, blackbird, magpie, pigeon, wagtails) and mammals (horse, cow, pig, dogs , cats)	describe and compare the structure of a variety of common animals (fish, amphibians, reptiles)	describe and compare the structure of a variety of common animals (birds and mammals, including pets)	identify and name a variety of common animals (rabbits - herbivore, magpie - omnivore, crocodile - carnivore) that are carnivores, herbivores and omnivores	Can children name the animals (explored) and classify them? Name any similarities and differences between… Cow and blackbird. Frog and snake.	Amphibian Reptile Bird Mammal Fish Herbivore Omnivore Carnivore
	Working Scientifically Keep an on-going record of new scientific words that they have come across for the first time.	Working Scientifically Keep an on-going record of new scientific words that they have come across for the first time.	Working Scientifically Keep an on-going record of new scientific words that they have come across for the first time.	Working Scientifically Keep an on-going record of new scientific words that they have come across for the first time.	Working Scientifically Keep an on-going record of new scientific words that they have come across for the first time.	Working Scientifically Keep an on-going record of new scientific words that they have come across for the first time. Ask questions such as:		

						Why do some animals eat meat and others do not?		
	Y1 Sticky Knowledge: • K1 – We use our eyes to see, ears to hear, nose to smell, tongue to taste and hands to touch. • K2 – goldfish, minnow and carp are all types of fish. • K3 – frogs, newts and toads are all amphibians. • K4 – adders, bearded dragons and crocodiles are all reptiles. • K5 – robin, pigeon and magpie are all types of birds. • K6 – A herbivore eats vegetation, a carnivore eats meat and an omnivore eats both.							
Y1 **Plants** (Pentecost 1 &2)	identify and name a variety of common wild and garden plants, (buttercup, daisy, foxglove)		identify and name a variety of deciduous and evergreen trees – (silver birch, horse chestnut and sycamore and conifers)		identify and describe the basic structure of a variety of common flowering plants,	identify and describe the basic structure of a variety of common trees.		seed Petal Leaf / leaves Roots Stem Trunk Branch (twig?) Bark Bulb
	Working Scientifically Keep an on-going record of new scientific words that they have come across for the first time.		Working Scientifically Keep an on-going record of new scientific words that they have come across for the first time.		Working Scientifically Keep an on-going record of new scientific words that they have come across for the first time. Use magnifying glasses to find out more about plants. Ask questions such as: *Why are flowers different colours?*	Working Scientifically Keep an on-going record of new scientific words that they have come across for the first time.		

	Sticky Knowledge K1 – Common wild garden plants include buttercups, daisies and foxgloves. K2 – Deciduous trees include silver birch, horse chestnut and sycamore. Evergreen trees include conifers and fir trees. K3 – A stem holds the plant upright. Petals are bright coloured. Leaves help the plant to feed and grow. K4 – The roots anchor a tree and keep it healthy.							
Y2 **Animals, including humans** (Advent 2)	find out about and describe the basic needs of animals, including humans, for survival (water, food and air)	describe the importance for humans of exercise	describe the importance for humans of hygiene.	describe the importance for humans of eating the right amounts of different types of food	describe the importance for humans of eating the right amounts of different types of food		Draw and label a healthier dinner or lunch. Explain your choices.	Healthy Balanced diet Hygiene Carbohydrates Proteins Fats Vitamins Minerals
	Working Scientifically Ask questions such as: *What do all living things need to survive?* Keep an on-going record of new scientific words that they have come across for the first time.	**Working Scientifically** Ask questions such as: *How can we keep our bodies healthy?* Keep an on-going record of new scientific words that they have come across for the first time.	**Working Scientifically** Ask questions such as: *How can we keep our bodies healthy?* Keep an on-going record of new scientific words that they have come across for the first time.	**Working Scientifically** Ask questions such as: *How can we keep our bodies healthy?* Classify or group things according to a given criteria, e.g. seed or bulb/ carbohydrates, proteins/ alive, never alive, dead. Keep an on-going record of new scientific words that	**Working Scientifically** Ask questions such as: *How can we keep our bodies healthy?* Keep an on-going record of new scientific words that they have come across for the first time.			

				they have come across for the first time.				
	Sticky Knowledge • K1 – Humans need water, air, food and shelter to survive. • K2 – Exercise is important as it helps to keep our body strong and healthy. • K3 – Good hygiene is important to keep us clean and safe. • K4 – A balanced diet is important to humans to give our body the nutrients it needs. • K5 – Different foods belong to different food types and have different benefits.							
Animals, including humans (Lent 1)	Recap of basic needs. Notice that animals, including humans, have offspring which grow into adults	Lifecycle of frog (recap Y1 amphibians – frogs)	Lifecycle of a chicken	Lifecycle of butterfly				Lifecycle Offspring Adults Egg Tadpole Froglet Hatchling Pupa
	Working Scientifically Ask questions such as: *How does my body change as I grow up?* Keep an on-going record of new scientific words that they have come across for the first time.	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time.	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time.	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time.				

	Sticky Knowledge: • K1 – Animals, including humans have offspring that will grow into adults. • K2 – The lifecycle of a frog has four stages – egg, tadpole, froglet and frog. • K3 – The lifecycle of a chicken has four stages - egg, hatchling, chick and chicken. • K4 – The lifecycle of a butterfly four stages – egg, caterpillar, pupa, butterfly.							
Y2 **Living Things and their Habitats** (Lent 2 & Pentecost 1)	explore and compare the differences between things that are living, dead, and things that have never been alive	explore and compare the differences between things that are living, dead, and things that have never been alive	Review: basic needs Y2 Animals including humans identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other Lesson 1 – pets	identify and name a variety of plants and animals in their habitats, including micro-habitats Lesson 2 – local micro-habitats	identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other Lesson 3 – world (ocean, woodland, rainforest etc)	describe how animals obtain their food from plants and other animals, using the idea of a simple food chain	identify and name different sources of food. Assessment: Children will be given a picture of a plant/animal to label showing what it need to survive. Then will be asked to complete a least one simple food chain and, where possible, label terminology like producer, consumer etc or carnivore, herbivore.	Habitat Micro-habitat Producer Consumer Predator Prey Species Respiration Sensitivity Excretion
	Working Scientifically Classify or group things	**Working Scientifically** Keep an on-going record of new	**Working Scientifically** Ask questions such as:	**Working Scientifically** Use magnifying	**Working Scientifically** Keep an on-going record of new scientific words that they have come	**Working Scientifically** Keep an on-going record		

	according to a given criteria, e.g. seed or bulb/ carbohydrates, proteins/ alive, never alive, dead. Keep an on-going record of new scientific words that they have come across for the first time.	scientific words that they have come across for the first time.	*How do animals adapt to their habitats? Why do some animals have underground habitats?* Keep an on-going record of new scientific words that they have come across for the first time.	glasses to find out more about small creatures and plants. Keep an on-going record of new scientific words that they have come across for the first time.	across for the first time.	of new scientific words that they have come across for the first time.		
	Sticky Knowledge • K1 - All living things: Movement, Respiration, Sensitivity, Nutrition, Excretion, Reproduction, Growth • K2 - Animals live in habitats that suit their basic needs. • K3 - Local micro-habitats are logs, stones and leaves which are where mini-beasts can be found. • K4 – A food chain always starts with a producer, followed by consumer(s) and ends with a predator.							
Y2 Plants (Pentecost 2)	Review Y1 observe and describe how seeds and bulbs grow into mature plants (dwarf sunflower seed and narcissus bulb)	find out how plants need water, light and a suitable temperature to grow and stay healthy.			describe how plants need water, light and a suitable temperature to grow and stay healthy.		Assessment: Describe how plants need water, light and a suitable temperature to grow and stay healthy.	Growth Survival Mature Germination Environment

	Working Scientifically Classify or group things according to a given criteria, e.g. seed or bulb/ carbohydrates, proteins/ alive, never alive, dead. Observe and record, with some accuracy, the growth of a variety of plants as they change over time from a seed or bulb. Keep an on-going record of new scientific words that they have come across for the first time.	**Working Scientifically** Ask questions such as: *Do all plants need water to grow? Is light necessary for plants to grow? Can you describe the life cycle of a flowering plant?* Know how to set up a comparative test to show that plants need light and water to stay healthy. Keep an on-going record of new scientific words that they have come across for the first time.			**Working Scientifically** Using their observations and ideas to suggest answers to questions. Gathering and recording data to help in answering questions. Keep an on-going record of new scientific words that they have come across for the first time.			
	Sticky Knowledge • K1 – seeds and bulbs have a store of food inside them. • K2 – Most seeds and bulbs do not need light to grow. • K3 – Most plants need water, light and a suitable temperature to grow and stay healthy.							

Y3 Animals, including humans (Advent 2 & Lent 1)	Recap basic needs and nutrition from Y2. Humans need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat	identify that animals (human, sloth, cheetah, parrot, dog and cat) need the right types and amount of nutrition – compare human and dog.	identify that humans have skeletons for support, protection and movement.	identify that humans and *some other animals* (octopus, scorpion) have skeletons for support, protection and movement	identify that humans have muscles for support, protection and movement.	Name the three types of skeleton and name an animal. What is a vertebrate and invertebrate? How do muscles work?	Nutrition Contract Relax Endoskeleton, Exoskeleton Hydrostatic Vertebrate Invertebrate
	Working Scientifically Keep an on-going record of new scientific words that they have come across for the first time.	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time.	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time.	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time.	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time.		
	Sticky Knowledge • K1 – Humans need different nutrients to other animals. • K2 – Skeletons provide support, protection and movement. • K3 –The three types of skeleton are: endoskeleton, exoskeleton and hydrostatic. • K4 – Vertebrates have endoskeletons. Examples are: mammals, fish, amphibians, birds and reptiles. • K5 – Some invertebrates have exoskeletons. Examples are: insects, spiders and crustaceans. • K6 - Some invertebrates have hydrostatic skeletons. Examples are: earthworms, jelly fish and starfish. • K7 – To know that muscles work in pairs (contracting and relaxing).						

Y3 Plants (Lent 2)	Recap Y1 identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers	Recap Y2 explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant	investigate the way in which water is transported within plants	explore the part that flowers play in the life cycle of flowering plants, including pollination, ~~seed formation and seed dispersal~~	explore the part that flowers play in the life cycle of flowering plants~~,~~ ~~including pollination,~~ seed formation and seed dispersal		Quiz on: Parts and function of flowering plants Seed formation and dispersal. How water is transported within plants	Seed dispersal Seed formation Life-cycle Transport Absorbs Nutrients Ballistic
	Working Scientifically Keep an on-going record of new scientific words that they have come across for the first time. Group information according to common factors e.g. plants that grow in woodlands or plants that grow in gardens.	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time. Observe which type of plants grow in different places e.g. bluebells in woodland, roses in domestic gardens, etc. Test to see which type of soil is most suitable when growing two similar plants. Set up a fair test	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time. Present findings using written explanations and include diagrams when needed. Make sense of findings and draw conclusions which help them to	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time.	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time.			

		with different variables e.g. the best conditions for a plant to grow. Explain to a partner why a test is a fair one	understand more about scientific information. Amend predictions according to findings.					
	Sticky Knowledge • K1 – The roots absorb water and nutrients from the soil and anchors the plant. • K2 – The stem/trunk transports water and nutrients to the different parts of the plant and provides support. • K3 – Brightly coloured flowers attract insects to help reproduce in order for the life-cycle to start again. • K4 – The five main modes of seed dispersal are: gravity, wind, ballistic, water and animals.							
Y4 Animals, including humans (Advent 1)	Recap (Y2 and Y3) diet and hygiene – link to teeth cleaning. identify the different types of teeth in humans and their simple functions	Tooth Decay identify what tooth decay is and possible causes	Name the basic parts of the digestive system in humans	describe the simple functions of the basic parts of the digestive system in humans	Recap from Y1 (herbivores, omnivores and carnivores) construct and interpret a variety of food chains, identifying producers, predators and prey	construct and interpret a variety of food chains, identifying producers, predators and prey	Name three different teeth. Tell the story of how your food is digested. Complete a food chain/web (with given predators and prey.	Incisors Molars Canines Salivary gland Oesophagus Pancreas Intestines Predator (Y2) Prey (Y2) Producer (Y2) Primary consumer Secondary consumer Tertiary consumer Decomposer
	Working Scientifically Keep an on-going record of new scientific words that they have come across	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time.	**Working Scientifically** Keep an on-going record of new scientific words that they have	**Working Scientifically** Keep an on-going record of new scientific words that they have come across	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time. Present findings using written explanations and	**Working Scientifically** Keep an on-going record of new scientific words that they have		

	for the first time.		come across for the first time.	for the first time. Ask questions such as: *Why is the liver important in the digestive systems?* Use research to find out how much time it takes to digest most of our food.	include diagrams, when needed.	come across for the first time.		
	Sticky Knowledge • K1 – Teeth - incisors cut, molars chew and grind and canines tear. • K2 – The salivary gland, oesophagus, pancreas, liver and intestines all form part of the digestive system. • K3 – The oesophagus is the food highway that takes your food from your mouth down to your stomach. • K4 – The liver creates different enzymes to help process nutrients and the pancreas releases insulin to regulate blood sugar levels. • K5 – The intestines absorb the nutrients and processes the waste. • K6 – a food web consists of producers, consumers and predators.							
Y4 Living Things and their Habitats (Lent 2 & Pentecost 1)	Review Y3 – vertebrate and invertebrates Y1 – mammals, fish, amphibians, birds, reptiles. Humans including animals	explore classification keys to help group, identify and name a variety of living things in their local and wider environment birds, insects, amphibians,	explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment birds, insects,		Recognise that environments can change and that this can sometimes pose dangers to living things. Link COP 26 or any current danger e.g. wild fires/volcanoes/rainforest etc		Assessment – Classify a given selection of living things – creating their own simple classification key. Identify an environmental	Classification key Environmental change Climate change Natural disaster

	recognise that living things can be grouped in a variety of ways	mammals and fish – check with Y1 so new coverage takes place.	amphibians, mammals and fish.		1-2 lessons		change that poses danger to living things and explain.	
	Working Scientifically Keep an on-going record of new scientific words that they have come across for the first time. Ask questions such as: *Why do animals share certain characteristics?*	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time. Gather and record information using a chart, matrix or tally chart, depending on what is most sensible.	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time. Gather and record information using a chart, matrix or tally chart, depending on what is most sensible.		**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time.			
	Sticky Knowledge • K1 – Living things can be grouped in lots of different ways e.g. animal classification, features, habitats, diet etc • K2 – Classification keys help us to identify a living thing or decide which group it belongs to. • K3 – Environments can change (global warming, natural disasters) which can pose dangers to living things and their habitats.							

Y5 Animals, including humans (Pentecost 1)	Recap – Y2 human growth (baby to adult) describe the changes as humans develop to old age. Stages of development from post conception to old age.	Gestation period – humans and other animals	Brain development	Puberty (links to RSHE)	Life Expectancy		Name the stages of development and explain what happens at each stage. Which gestation period matches the following animals?	Cognitive Linguistic Social Emotional Motor Gestation period Foetus Puberty Adolescence Life Expectancy
	Working Scientifically Keep an on-going record of new scientific words that they have come across for the first time. Set up an enquiry-based investigation e.g. find out what adults/chn can do now that they couldn't when a baby.	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time.	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time.	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time.	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time.			

	Sticky Knowledge • K1 – 0-3 years of life are the most important for brain development. • K2 - During puberty, girls develop breasts and start their periods and boys develop a deeper voice and grow facial hair. • K3 - The larger a mammal the greater the gestation period (with the exception of humans). • K4 - A human's average life expectance is approximately 80 years in the UK.							
Y5 Living Things and their Habitats (Lent 1 & 2)	Recap from Y2 – simple lifecycles (frog, butterfly and chicken) describe the differences in the life cycles an amphibian (salamander).	describe the differences in the life cycles an insect (dragonfly).	describe the differences in the life cycles a bird (robin).	describe the differences in the life cycles of a mammal (dolphin verses human).	describe the life process of reproduction in some plants and animals. Lesson 1/2 – sexual reproduction in plants Lesson 3 – asexual reproduction in plants Lesson 4 – sexual reproduction of animals		Assessment – to label the male and female parts of a flower. Draw and label the two lifecycles out of a dragonfly, salamander, robin and a dolphin.	Larva Nymph Moult Hatchling Fledgling Calf Gills Metamorphosis Germination Fertilisation Anther Filament Receptacle Ovary Ovule Sepal Style Stigma
	Working Scientifically Keep an on-going record of new scientific words that they have come across for the first time. Able to relate causal relationships when, for example,	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time. Able to relate causal relationships when, for example, studying life cycles.	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time. Able to relate causal relationships when, for	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time. Able to relate causal relationships when, for example,	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time. Use diagrams, as and when necessary, to support writing.			

	studying life cycles. Use diagrams, as and when necessary, to support writing.	Use diagrams, as and when necessary, to support writing.	example, studying life cycles. Use diagrams, as and when necessary, to support writing.	studying life cycles. Use diagrams, as and when necessary, to support writing.				
	Sticky Knowledge • K1 – A salamander has five stages to its lifecycle – egg, larva with gills, larva with forelimbs, larva with all four limbs and adult. • K2 – A dragonfly has three stages to its lifecycle – egg, nymph and adult. • K3 – A robin has five stages to its lifecycle – egg, hatchling, chick, fledgling, adult. • K4 – A whale has three stages to its lifecycle – calf, juvenile and adult. • K5 – A human has six stages to its lifecycle –foetus, baby, child, teenager, adult and elderly. • K6 – A plant has four stages to its lifecycle – seed, germination, seedling and plant. • K7 – Plants can reproduce sexually and asexually. • K8 – Some plants have male and female parts so they can reproduce. • K9 – Most animals reproduce sexually to pass on their genes.							
Y6 Animals, including humans (Lent 1)	Recap – Y3 skeleton and muscles identify and name the main parts of the human circulatory system, and	describe the functions of the heart, blood vessels and blood	Recap Y2 (diet) and Y3 (diet and exercise) recognise the impact of diet and exercise on the way their bodies function	recognise the impact of drugs and lifestyle on the way their bodies function	Y4 recap on human digestive system. describe the ways in which nutrients and water are transported within animals, including humans		Blank heart – label the parts and tell the story about how the blood circulates the body. Impact of drugs and lifestyle on bodies.	Arteries Veins Capillaries Atriums Ventricles Pulse Oxygenated De-oxygenated Nicotine Caffeine Alcohol

	Working Scientifically Keep an on-going record of new scientific words that they have come across for the first time.	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time.	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time. Be clear about what has been found out from their enquiry and can relate this to others in class. Explanations set out clearly as to why something has happened and its possible impact on other things. Able to record data and present them in a range of ways including diagrams, labels, classification	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time. Be clear about what has been found out from their enquiry and can relate this to others in class. Explanations set out clearly as to why something has happened and its possible impact on other things.	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time.			

			keys, tables, scatter graphs and bar and line graphs.					
	Sticky Knowledge: • K1 – The circulatory system is made up of blood vessels that carry blood away from and towards the heart. • K2 – The circulatory system carries oxygen, nutrients and hormones to cells and removes waste products e.g. carbon dioxide. • K3 – Blood only flows in one direction. • K4 – There are four chambers to the heart. • K5 – Drugs can have a negative impact on our physical and mental health.							
Y6 Living Things and their Habitats (Pentecost 2)	Recap from Y4 and Y2 (classification of animals) describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including animals – (invertebrates	describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including plants – (without seeds - ferns, mosses.)	describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms – (good microbes)	describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms – (bad microbes)	give reasons for classifying plants and animals based on specific characteristics		To classify a given set of mirco-organisms and invertebrates.	Micro-organism Microbe Arthropod Mollusc Cnidarian Annelid Echinoderm Sponge Ferns Mosses

	– all sub categories)							
	Working Scientifically Keep an on-going record of new scientific words that they have come across for the first time. Able to record data and present them in a range of ways including diagrams, labels, classification keys, tables, scatter graphs and bar and line graphs.	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time. Able to record data and present them in a range of ways including diagrams, labels, classification keys, tables, scatter graphs and bar and line graphs.	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time. Able to record data and present them in a range of ways including diagrams, labels, classification keys, tables, scatter graphs and bar and line graphs.	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time. Able to record data and present them in a range of ways including diagrams, labels, classification keys, tables, scatter graphs and bar and line graphs.	**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time. Able to give an example of something they have focused on when supporting a scientific theory e.g. classifying vertebrate and invertebrate creatures or why certain creatures choose their unique habitats. Able to record data and present them in a range of ways including diagrams, labels, classification keys, tables, scatter graphs and bar and line graphs.			
	Sticky Knowledge • K1 – animals, plants and micro-organisms can be classified into different groups. • K2 – invertebrates have no spine and can be sub-divided into six categories. • K3 – Ferns and mosses grow and reproduce without any seeds or flowers. • K4 – Micro-organisms can be sub-divided into five categories. • K5 – Micro-organisms can be good or bad and can have many uses.							

Y6 **Evolution and Inheritance** (Lent 2 & Pentecost 1)	Recap (Y5 – living things and their habitats) Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.		Y2 and Y4 living things and their habitats Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.		Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.		Identify how a given animal or plant is adapted to suit their environment in different ways and that adaptation may lead to evolution.	Inheritance Evolution Adaptation Offspring Scientific theory Natural selection Naturalist
	Working Scientifically Keep an on-going record of new scientific words that they have come across for the first time.		**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time.		**Working Scientifically** Keep an on-going record of new scientific words that they have come across for the first time. Frequently carry out research when investigating a scientific principle or theory.			
	Sticky Knowledge: • K1 - Organisms that are best adapted to their environment survive and pass on characteristics to their offspring. This is known as natural selection. • K2 – We know that the animals and plants of today are different from those of long ago. • K3 - Evolution is a scientific theory used by biologists. It explains how living things changed over a long time, and how they have come to be the way they are. • K4 - We know that living things have changed over time, because we can see their remains in the rocks. • K5 - Evolutionary questions are still being actively researched by biologists.							