

West Winch Primary School Science Curriculum Map						
Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Reception	My Body	Light and Dark Changes in the seasons	Materials	Growing Plants and Animals	Mini-beasts	Floating and Sinking.
Understanding the World	- Explore the natural world around them,making observations and drawing pictures of animals and plants. - Know some similarities and differencesbetween the natural world around themand contrasting environments, drawingon their experiences and what has beenread in class. - Understand some important processesand changes in the natural world around them, including the seasons andchanging states of matter.					
Vocabulary	Senses: touch, taste, smell, sight, hearing. Eyes, nose, mouth, tongue, ears, skin	Season, autumn, spring, summer, winter, months of the year, changes, weather, hot, cold, warm, frost, ice, sun, wind, rain, heat	Hot, heat, cool, cold, plastic, wood, plasticine, playdoh, metal, paper, fabric, solid, runny, shiny, dull, fall down, collapse, wet, soaked, soggy,	Flower, leaf, stem, roots, water, soil, light, dark, beans seeds, bulbs, flowers, fruit, vegetables, egg, chick, hen, incubate, lay, hatch, wings, beak, feathers, yolk	Minibeast, lifecycle, metamorphosis, caterpillar, tadpole, insect, habitat, wings, horns, antennae, legs, shell, chrysalis, cocoon	Float, sinking, sunk, big, small, shape, heavy, light, weight, water, bottom, surface, boat, side, balance
Year 1	All Living Things – Humans, including Growing and Changing	Forces and Magnets	Light and Dark, Changes in Weather, Seasons and Electricity	All Living Things – Focus on Animals	All Living Things – Plants	Everyday Materials
Knowledge	Name and describe parts of the body, know that humans are animals, name and describe a range of animals, know that all animals change as they grow, to match adult animals to their young, name and label the parts of the human body and know the 5 senses.	How do things move? What is a push and what is a pull? How to stop something from moving safely.	Describe changes across 4 seasons, identify changes from autumn- winter, describe weather in winter, explain how some animals and explain changes from winter to spring.	Name, describe and compare the structure of some common animals, herbivores, carnivore and omnivores	Observe and describe how seeds and bulbs grow into mature plants. Identify and describe the basic structure of a flowering plant including roots, stem/trunk, leaves and flowers. Find out about and describe what plants need to grow and stay healthy, including, water, light and temperature.	Name a variety of materials, - wood, plastic, glass, metal, water and rock. Describe the physical properties of everyday materials. Identify and compare the suitability of a range of everyday materials based on simple physical properties, e.g. smooth, soft, hard... Talk about what common materials are used for, e.g. glass for windows.
Vocabulary	Sight, hearing, touch, taste, smell, taller, older, baby, child, teenager, adult, grow, change, develop, living and non-living	Push, pull, force, motion, speed, faster and slower	Seasons, autumn, winter, spring and summer, daylight, weather, months of the year.	Amphibians, birds, fish, mammals, reptiles, carnivores, herbivore and omnivore, life-cycle,	Wild plants, garden plants, weed, deciduous, evergreen, roots, stem, leaves, flowers, petals, fruit, seed, bulb	Object, material, hard, soft, stretchy, shiny, dull, rough, smooth, bendy, not bendy, waterproof, not waterproof, absorbent, not absorbent, transparent, opaque.
Year 2	Animals, including Humans		Materials		Plants	Living Things - Habitats
Knowledge	To know that animals, including humans, have offspring which grow into adults, know how they change, compare different life-cycles, survival, investigate exercise, healthy eating and hygiene.		Uses of materials, compare the suitability of everyday uses, change the shape of some materials, explain the process of recycling.		Observe and describe how seeds and bulbs grow into mature plants. Find out and describe how plants need water, light and a suitable temperature to grown and stay healthy.	Explore and compare the differences between things that are living, dead and things that have never been alive. Recognise that living things grow and change. Identify a range of similarities and differences between animals and plants.

Vocabulary	Adult, offspring, develop, life-cycle, young, diet, disease, exercise, germs, hygiene, nutrition and pulse.	Materials, suitability, properties, flexible, smooth, lightweight, hard-wearing, absorbent, stretchy, transparent, elastic, strong, waterproof, twist and bend.			Germination, sprout, shoot, seed dispersal, sunlight, water, temperature, nutrition	life processes, living, dead, never living, food chain, food sources, habitat, microhabitat, depend and survive
Year 3	Rocks and Fossils	Forces and Magnets	Light and Shadow	Plants	Animals – Humans, including Skeletons and Animal Diets	
Knowledge	Compare rocks based on appearance, group rocks, know how fossil are formed, Mary Anning’s contributions and soil formation.	Identify forces, investigate different surfaces, sort magnetic and non-magnetic materials and magnetic poles.	Light and dark, reflection, explain how mirrors work, understand how the sun can be dangerous and how we can protect ourselves, investigate shadows and how they can be changed.	To know parts of the plants, know and investigate what plants need to grow well, investigate how water travels in plants, name different parts of the flower and know their role in pollination and fertilisation and know the life cycle of a plant.	To know why animals, including humans, need the right type of nutrients and how these are obtained; sort animals based on their skeletons, identify and name bones; identify and explain the three main functions of a skeleton; to know why we need muscles to move; to set up a simple enquiry and record findings.	
Vocabulary	Fossil, palaeontology, igneous, sedimentary, metamorphic, magma, lava, sediment, permeable, impermeable, fossilisation and erosion.	Forces, friction, surface, magnet, magnetic (field), poles, repel and attract	Light source, reflections, reflective, ray, pupil, retina, shadows, opaque, translucent and transparent.	Roots, stem, leaves, flowers, nutrients, evaporation, fertilisation, petal, stamen, carpel, sepal, pollination, pollinator, germination and seed dispersal.	Healthy, nutrients, energy, saturated and unsaturated fats, carbohydrates, protein, fibre, fats, vitamins, minerals, vertebrate, invertebrate, muscles, tendons and joints.	
Year 4	Living Things & Habitats	Animals Including Humans	Sound	States of Matter	Electricity	Science Revision
Knowledge	Group and sort living things; generate questions, observe and classify vertebrates; use evidence and a key to sort invertebrates; create a classification key; recognise positive and negative changes in the local environment and record their observations in different ways; and present these findings.	Identify and name parts of the human digestive system, to explain their function, identify types and functions of teeth, understand tooth decay, set up a test or enquiry and construct and interpret food chains.	Describe and explain how sound is made, know how sound travels, explore ways to change the pitch of sounds and investigate ways to absorb sounds.	Sort solids, liquids and gases; investigate gases and explain their properties; investigate materials that change state; explore water – evaporation and the water cycles.	Explain ways that electricity is generated; identify electrical appliances and the types of electricity they use; identify complete and incomplete circuits; identify and sort materials into electrical conductors or insulators; explain how a switch works and why they are needed; record and report on an investigation	
Vocabulary	Organisms, life processes, respiration, sensitivity, reproduction, excretion, nutrition, habitat, environment, endangered species, extinct, classification, vertebrates, invertebrates, specimen and characteristics.	Digest, oesophagus, stomach, small intestine, large intestine, rectum, herbivore, omnivore, carnivore, producer, predator and prey.	Vibration, sound wave, volume, amplitude, pitch, ear, particles, vacuum, absorb and eardrum.	States of matter, solids, liquids, gases, water vapour, melt, freeze, evaporate, condense, precipitation and water vapour.	Electricity, generate, renewable, non-renewable, appliances, battery, circuit	
Year 5	Earth and Space	Forces and Magnets	Animals, including Humans	Living Things and Their Habitats		Properties and Changes in Materials
Knowledge	To know about the sun and the solar system, why we have seasons and daylight, to know about the moon and	To know that objects fall to Earth due to gravity, to identify the effects of water and air resistance and friction	To know how humans grow and develop, stages of gestation and compare these, know the stages of	To describe the life process of reproduction in some plants and animals by exploring sexual and asexual reproduction in Plants. To describe the life cycle of a mammal by exploring the life cycles of mammals in different habitats. Describe the		Demonstrate that dissolving, mixing and changes of state are reversible changes. Know that some materials will dissolve in

	why it changes shape, to learn about the planets and constellations. Describe movements of the Earth, sun and moon; night and day; explain how seasons are created; learn the phases of the moon; discover theories of the solar system and how they have changed; and investigate the planets in the solar system.	that act between moving surfaces. To recognise that some mechanisms allow a smaller force to have greater effect (levers, pulleys and gears).	development and the needs of children, recognise puberty (inside and out), know to boys and girls differ and changes during adulthood and old age.	differences in the life cycles of an amphibian, an insect by exploring complete and incomplete metamorphosis and a bird.		liquid to form a solution and describe how to recover a substance from a solution; decide how mixtures might be separated, including through filtering, sieving and evaporating; explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible; give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.
Vocabulary	Forces, gravity, Earth's gravitational pull, geocentric, heliocentric, Solar System, Universe, Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto, Moon, meteor, asteroid, Sun, star, orbit, axis, rotation .	Weight, mass, friction, air resistance, water resistance, buoyancy, streamlined, mechanism and up thrust.	Fertilisation, prenatal, gestation, reproduce, asexual, sexual reproduction, life cycle, larynx, menstruate, adolescence, puberty, adulthood and life expectancy.	Organisms, life processes, respiration, reproduction, habitat, sensitivity, excretion, nutrition, environment, endangered species, extinct, vertebrates, invertebrates, lifecycle, classification, specimen, characteristics.		Materials, solute, solvent, solution, solids, liquids, gases, evaporation, separation, melting, freezing, condensing, conductor, insulator, transparency.
Year 6	Light	Electricity	Evolution and Inheritance	Living Things and Their Habitats	Animals Including Humans	
Knowledge	Explain how we see, how mirrors reflect light, explain refraction, investigate how light enables us to see colour and explore shadows.	Explain the major discoveries in electricity, recognise symbols, explain the effect of volts on the bulbs and plan investigations.	Explain the concept of inheritance, understand the meaning and theories of evolution, identify evidence of evolution and understand how human beings have evolved and understand advantages and disadvantages of evolution.	Classify animals, Linnaean system, investigate harmful and helpful microorganisms, identify characteristics of different types of microorganisms & classify organisms in my local habitat.	Identify and name the parts of the human circulatory system; describe the functions of the main parts of the circulatory system; explain how water and nutrients are transported within the body; n describe how diet and exercise impact on human bodies; n plan a scientific enquiry; record, report and present results appropriately; explain the impact of drugs and alcohol on the body.	
Vocabulary	Light source, reflection, incident ray, reflected ray, law of reflection, refraction, visible spectrum, prism, shadow, transparent, translucent and opaque	Circuit, symbol, cell/battery, current, amps, voltage, resistance and electrons.	Offspring, inheritance, variations, characteristics, adaptations, habitat, environment, evolution, natural selections, fossil, adaptive traits and inherited traits.	Characteristics, taxonomist, classify, bacteria, microorganism, microscope, species, bacteria, yeast, penicillium fungi, antibiotics and plaque	circulatory system, heart, blood vessels, oxygenated blood, deoxygenated blood, nutrients, alcohol, drug, plasma, platelets, white and red blood cells.	