

Science Curriculum Map 2021- 2022

OAK ACADEMY LESSONS IN BLUE (Vocabulary Red)

		Autumn A	Autumn B	Spring A	Spring B	Summer A	Summer B
Year 1	Science	<p>The Human Body Basic parts of the human body, senses; sight, hearing, touch, taste, sensory impairment</p> <p>Human, Senses, Eyes, Ears, Mouth, Nose, Skin, Sensory impairment</p> <p>Human Lifestyle</p>	<p>Animals and their Needs Identify and name a variety of common animals, carnivores, herbivores, structure of common animals, animals need; food, light, water, space, animals as pets</p> <p>Animal, Mammal, Amphibian, Reptile, Bird, Fish, Pet, Omnivore, Carnivore, Herbivore</p> <p>Animal Kingdom</p>	<p>Weather and Climate Seasonal weather, extreme weather, climate change</p> <p>Rain gauge, Thermometer</p> <p>Weather Vane, Data Clouds, Flood, Hurricane, Storms, Drought.</p> <p>Seasonal changes Autumn to winter, Winter walk, Winter weather, Day length variation</p>	<p>Seasonal Changes Winter to Spring, signs of spring, spring walk, spring weather, day length variation</p> <p>Spring, Summer, Autumn, Winter, Seeds, Seedlings, Growth, Buds, Blossom</p> <p>Seasons and Changes</p>	<p>Plants Common plants (including garden and wild), deciduous and evergreen, basic structure of flowering plants</p> <p>Seed, Evergreen, Deciduous</p> <p>Plants</p>	<p>Materials What objects are made from, wood, plastic, glass, metal and rock, physical properties.</p> <p>Hard, Soft, Stretchy, Stiff Shiny, Dull, Rough, Smooth, Bendy, Waterproof, Absorbent, Transparent, Opaque</p> <p>Materials</p>
Year 2	Science	<p>Animals including humans Animals have offspring that grow into adults, basic needs of animals (recap) and humans for survival, importance of diet, exercise and hygiene</p> <p>Skeleton, Joint, Muscle, Digest, Red blood cells, Arteries, Veins, Nerves, Germs, Edward Jenner, Louis Pasteur</p> <p>Humans and Animals over Time KS2</p> <p>Animal Kingdom</p>	<p>Sound Variety of sound sources, sound getting fainter as distance increases, compare sound sources, investigate location of fire bells (alarms) in school.</p> <p>Sound KS2</p>	<p>Uses of Everyday Materials Identify and compare uses for wood, metal, plastic, glass, brick, rock, paper and card. Compare how things move on different surfaces.</p> <p>Bendy, Waterproof, Absorbent, Transparent, Opaque</p> <p>Materials</p>	<p>Animals and their Habitats Living, dead, never been alive, habitats, adaptation, food, food chains, food sources.</p> <p>Habitat, Rainforest, Meadow, Desert, Underground, Adapt, Nocturnal</p> <p>Ecosystems KS2</p>		<p>Plants How seeds and bulbs grow into mature plants, water, light, suitable temperature, seeds and bulbs don't need light but need water. Germination.</p> <p>Survive, Life Cycle, Scattered</p> <p>Plants</p>
Year 3	Science	<p>Light and Shadow Light is reflected from surfaces, patterns that determine the size of shadows, the speed of light, transparent and opaque objects, reflection, mirrors: plane, concave, convex, use of mirrors in telescopes and some</p>	<p>Forces and Magnets Magnetic forces acting at a distance, Magnets around us, lodestones, magnetic field, law of magnetic attraction, north</p>	<p>The Water Cycle Name the clouds, cirrus, cumulus, stratus, vapour, evaporation, liquid, gas,</p>	<p>Animals Identify groups of animals with and without skeletons (vertebrates or invertebrates), Cold-blooded or warm-blooded, different classes of vertebrates, fish, amphibians, reptiles, birds, mammals, insects,</p>	<p>Rocks Compare and group kinds of rocks, fossils, how fossils were formed, Mary Anning, soils, mountains, weathering and erosion</p>	<p>Plants Functions of the parts of flowering plants, requirements for plant growth, water transportation, pollination, seed dispersal, seeds in fruits and how their position relates to dispersal</p>

		microscopes, using prisms, using lenses Light and Dark	and south magnetic poles, attraction and repulsion Forces	solid, humidity, precipitation Water, Weather & Climate (Geography KS2)	arachnids, molluscs, nutrition and diet of different animals	Erosion, Magma, Tectonic plate, Solidify, Dissolve Rock Cycle	Petal, Stamen, Carpel, Fertilisation, Dispersal, Pollen, Nectar Plants
Year 4	Science	Sound How sound is created, vibrations, how sound travels, sound waves, speed of sound, pitch, patterns between the pitch of sound and features of the object that produced it, patterns between the volume of sound and the strength of the vibrations that produced it Sound	Animals including Humans Digestive system in humans, teeth in humans, food chains including producers, predators and prey. Digestion, salivary glands, oesophagus, stomach, small intestine, large intestine, urethra, vitamins Habitat, Rainforest, Meadow, Desert, Underground, Adapt, Nocturnal Human Anatomy	States of Matter Solids, liquids, gas, changing state when matter is heated or cooled, evaporation, condensation and the water cycle, rate of evaporation and the link with temperature. States of Matter	States of Matter Solids, liquids, gas, changing state when matter is heated or cooled, evaporation, condensation and the water cycle, rate of evaporation and the link with temperature. States of Matter	Living Things and their Environment Habitats; (meadows, underground, rainforests, desert), food chains, ocean habitats, destruction and damage of habitats Gills, Fins, Scales, Lungs, Body Temperature, Deciduous,, Coniferous (Evergreen) Algae Adaptations	Electricity Common electrical appliances, simple series circuit, switches, lamps, conductors and insulators Electrical Circuits
Year 5	Science	All Living Things Life cycles of mammals, amphibians, insects, birds, reproduction in plants (asexual reproduction, sexual reproduction, seeds, flowers, fertilisation) and animals. Jane Goodall, David Attenborough. Reproductive Cycles	Earth and Space Movement of the Earth in relation to the sun, orbits, orbit of the moon around the Earth, earth's rotation to describe day and night, geocentric theory (everything orbits the earth) to heliocentric (everything orbits the sun), Stonehenge as an astronomical clock Space	Materials A Compare and group everyday materials using comparative and fair testing, dissolving, melting, separating mixtures, sieving, filtering and evaporating Separating Mixtures	Materials B Metals, wood, plastic and their uses, reversible changes, irreversible changes (including changes that form a new material) Physical/Chemical Changes	Forces Gravity, Air resistance, water resistance and friction, pulleys, gears and levers Magnetism	Animals including Humans Describing change in humans, birth to old age, puberty, gestation periods of humans and other animals Fertilised egg, Sperm, Foetus, Puberty Reproductive Cycles
Year 6	Science	Animals including Humans Circulation and respiration, the circulatory system, the heart, William Harvey's pioneering work, the respiratory system, impact of diet exercise and drugs on lifestyle, how nutrients and water are transported within animals including humans Oxygen, addictive Diet & Lifestyles	Living Things Classifying organisms, cells, plant and animal cells, fungi, taxonomy, Latin names, vertebrates, invertebrates, give reasons for classifying animals based on specific characteristics, Carl Linnaeus Taxonomy, Classification, Distinguish	Light Light travelling in straight lines, how we see, shadows, predict the size and shape of shadows. Design and make a periscope. Light & Dark	Electricity How the number of cells and their voltage effects the brightness of a lamp or the volume of a buzzer, symbols for drawing circuits. Design and make an alarm. Electrical Circuits	Evolution Fossils, adaptation, characteristics passing through generations, Mary Anning (recap), Alfred Wallace, Charles Darwin, Darwin's sketches of finches Adaptation, ancestor, biodiversity, biome, breeding, characteristics, environment, evolution, extinct, fossil, generation, inherit, palaeontology Human & Animals Over Time History of Science	Evolution Adaptation, ancestor, biodiversity, biome, breeding, characteristics, environment, evolution, extinct, fossil, generation, inherit, palaeontology Human & Animals Over Time History of Science

