St Mary's Science Curriculum Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	**All about me** Children looking at photos of them as a baby and comparing to now Growing and harvesting	**People who help us** Seasonal walks Researching by observing, reading books, looking on the internet, talking to experts and caring for plants and creatures	**The World around us** Caring for the world around us Noticing changes in materials	**Transport** Mapping the local environment Caring for the world around us	**Celebrations** Planting and gardening Celebrating the seasons and the changes Linking with Easter – looking at the life cycle of a chick	**Changes** Observe changes in plants and caterpillars – life cycles
Year 1	**The Human Body** Naming parts of the body, the five senses and associated body parts, understanding sensory impairment.	**Seasons and Weather** The four seasons, tools to record the weather, daily weather and weather forecasts, weather symbols, weather around the world, floods and hurricanes.	**Materials and Magnets** Classification of materials, magnets, magnetic attraction.		**Plants** What plants need to grow, the parts and functions of plants, food production, flowers and seeds, deciduous and evergreen, farming, crops, pesticides, harvest, from field to supermarket.	**Animals and their Needs** Living things, naming animals, grouping animals, describing animals, how plants and animals obtain food, offspring, caring for animal babies, caring for pets.
Year 2	**The Human Body** The skeletal and muscular systems, exercise, digestive system and healthy eating, circulatory system, preventing illness, germs and disease, animals and their offspring.	**Materials and Matter** Comparing materials, changing materials, concepts of atoms, matter, solids, liquids, gases, measurements.		**Astronomy** Our solar system, orbit and rotation, sun, moon, planets, stars, constellations.	**Plants** Seeds and bulbs, plants and water, light, temperature, healthy plants	**Living Things in their Environments** Habitats: rainforest, desert, meadow and underground habitats. Food chains, oceans and undersea habitats, deep ocean habitats and habitat destruction and damage.

Year 3	**The Human Body** The digestive system, teeth and senses, a healthy diet, nutrition, vitamins and minerals, skeletons and muscles for support, protection and movement.	**Rocks** Sorting rocks, how rocks are formed, hardness and permeability, fossils, soil.	**Forces and Magnets** Forces, friction, magnets, magnetic poles, magnetic fields, law of magnetic attraction, compasses.	**Light** The speed of light, shadows, transparent and opaque objects, reflection, mirrors: plane, concave, convex, the human eye. **Include in a lesson how light from sun is dangerous and that there are ways to protect our eyes**	**Plants** Functions of plants: roots, stem/trunk, leaves and flowers, Life and growth, variety of plants, water transportation, seed formation and dispersal	
Year 4	**The Human Body** The muscular system, the skeletal system, the nervous system, the digestive system, teeth. **Include a lesson where children construct & interpret a variety of food chains, identifying producers, predators and prey.**	**States of Matter and the Water Cycle** Change of state, evaporation, condensation, precipitation, humidity, ground-water.	**Electricity** Electric current, series circuits, switches, closed circuit, open circuit, short circuit, conductors and insulators	How sound is created, how sound travels, sound waves, speed of sound, pitch, intensity, the human voice, hearing, the human ear.		**Classification of Plants and Animals** Cold-blooded or warm-blooded, vertebrates or invertebrates, characteristics of animal classes, classification of plants. **Include in a lesson on how environments can change and that this can pose dangers to living things**
Year 5	**The Human Body:** Human growth stages, adolescence and puberty, The human reproductive system, The endocrine system.	**Materials** Properties- solubility, conductivity, flexibility etc., fair testing, solubility, separation of mixtures, reversible changes- dissolving, mixing, change of state.	**Forces** Gravity, friction, air resistance, water resistance, pulleys, gears and levers.	**Astronomy** The Big Bang theory, gravity, the Universe, our Solar System, the moon and our galactic neighbourhood. **Include in a lesson that sun, planets and moon are spherical bodies and how Earth's rotation links to day/night**		**Living Things** Life cycles of a mammal, an amphibian, an insect and a bird, life process of reproduction in some plants and animals, Photosynthesis, vascular and non-vascular plants.
Year 6	**The Human Body** The circulatory system, the heart, the blood vessels, the blood, blood pressure and heart rate, impact of diet, exercise and drugs on our bodies, water and nutrients transportation around the body	**Evolution** Fossils, adaptation, characteristics passing through generations, Mary Anning, Alfred Wallace, Charles Darwin, Darwin's sketches of finches	**Electricity** Brightness, buzzers, voltage, switches, simple and parallel Circuits, circuit symbols **KS3 links – parallel circuits**	**Light** How light travels, Our eyes and how we see, light sources, shadows and their shapes		**Classification of Living Things** Classifying organisms, plant and animal cells, fungi, protists, monera, taxonomy, Latin names, vertebrates.