

St Thomas More Catholic Primary School Curriculum

To provide opportunities that enable our children to have the skills, knowledge, understanding, confidence and desire to achieve the highest standards of which they are capable. Enabling them to play an active part as responsible and caring members of the school community and beyond.

Humanities			Arts & Culture				Sciences			
History	Geography	Languages	Art & Design	RE	PSHE	Music	Science	PE	Computing	DT

Science

A St Thomas More Scientist will:

- Demonstrate investigative and questioning skills
- Have a deeper understanding of their world
- Use teamwork and co-operation skills
- Have a different way of thinking
- Enjoy learning in a practical way
- Have freedom to investigate their ideas
- Think independently and raise questions about working scientifically
- Develop confidence in practical skills, planning and carrying out scientific investigations
- Have a passion for science and its application in past, present and future technologies.

Supporting community priorities:

- Being language rich
- Cultural and creative experiences
- Enjoying the outdoors and appreciating the locality

Year		Topic	Goals	Anchor	Goldilocks	Step on
R	A	I am special	<p>Materials CP – Looking at everyday objects, talking about textures <i>How is it the same/different?</i></p> <p>Human Body CP – Parts of the body, simple facial features. <i>Name the parts of the body/face.</i></p> <p>Natural World CP – Looking at the world around us, seasonal changes, talking about what we can see/feel. <i>Outcome questions:</i> What can we see growing outside? (<i>plant, tree, bush, flower, vegetable, herb, weed</i>) <i>What does winter feel/look like?</i> <i>What does summer feel/look like?</i></p>	wet, cold, smooth, big, bigger, biggest, smaller, smallest hard, soft, wood, paper, metal Winter Summer plant tree flower rain snow ice sun clouds windy rainbow	heavy not heavy strong plastic card head feet arm leg hair hand finger toes nose bush vegetable seasons sunny cloudy warm frost	bendy slippery rigid waterproof soggy see-through light chin eyebrows eyelashes cheeks Autumn Spring herb weed thunder lightning hail sleet shadow
	S	Out of the Egg/Frosty and Frozen	<p>Natural World CP – Continue to look at the world around us, melting ice, changes in materials,</p>	cold/not cold hot/not hot egg	melting unhealthy teeth	changes materials

			<p>selecting materials to make an egg carrier, changes of the egg.</p> <p>What happens when ice gets warm?</p> <p>Healthy Lifestyles</p> <p>CP – Healthy lunchboxes, food choices, toothbrushing,</p> <p>What healthy things can we eat?</p> <p>How can we keep our teeth healthy?</p>	<p>like don't like</p> <p>healthy</p>	<p>brush</p>	
	S	<p>Once upon a time</p>	<p>Natural World</p> <p>CP - Minibeast life cycles, butterfly life cycles, mothers and babies (farm animals)</p> <p>Match the mother to the baby.</p> <p>Materials</p> <p>CP – Make 3 Little Pig houses</p> <p>Who built the best house?</p>	<p>butterfly caterpillar mummy mother baby young old grow boy girl</p>	<p>animal names</p> <p>adult father family man woman brother sister</p>	<p>cousin aunt uncle friend</p>
Y1	A	<p>Monkey Puzzle</p> <p>Big question: How are animals different?</p>	<p>Children can identify, describe and compare a variety of living creatures (including fish, amphibians, reptiles, birds and mammals), and name their basic parts, including humans and the senses. Children can identify and name a variety of common animals that are carnivores, herbivores and omnivores.</p> <p>PSHE Link - body safety</p> <p>Outcome questions: Name an animal that has..?(e.g. wings = bird) What could an egg grow into?</p>	<p>Common animals Fish Bird Pet Basic body parts tail, wing, claw,</p>	<p>amphibians, reptiles, birds mammals carnivore herbivore omnivore fin, scales, feathers, fur, beak, paws, hooves,</p>	
	S	<p>Shake, Rattle and Roll</p> <p>Big question: How do materials differ?</p>	<p>Children can identify and compare a range of everyday materials and describe their properties, making suggestions about their suitability for particular uses.</p> <p>Outcome questions: Is a coat made of wood? (e.g. no because it would be too hard to move) Is a train made of paper? (e.g. no because it would get wet and break)</p>	<p>Material – wood, metal, plastic, water, rock, brick, paper, fabric Properties – hard/soft, stiff/stretchy, shiny/dull, rough/smooth, bendy</p>	<p>glass foil card cardboard rubber wool clay</p> <p>properties of materials transparent</p> <p>Absorbent Waterproof rigid</p>	<p>Elastic</p>
	S	<p>The Secret Garden</p> <p>Big question: How do plants grow?</p>	<p>Children can identify a range of common plants (in the local environment), describe their basic structure, and explain what they need to grow and stay healthy.</p> <p>Children can observe and describe typical weather for each season and how the day length varies.</p> <p>Outcome questions:</p>	<p>Common wild plants Common garden plants Trunk – branch – root - leaf Flower – petal – stem Fruit – vegetable</p>	<p>Evergreen Blossom Bud Bulb</p>	<p>deciduous</p>

			<p>Name a tree we have in school (e.g. apple, fig)</p> <p>Name a plant which flowers. (e.g. strawberry)</p> <p>What happens to trees in Autumn? (e.g. leaves fall off)</p>	Seed		
Y2	A	<p>Turrets and Tiaras</p> <p>Big question: Are all materials suitable for the same purpose?</p>	<p>Children can identify, compare and suggest suitable uses for a given material. Children will find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p> <p>Outcome questions:</p> <p>Which materials can keep things waterproof?</p> <p>What is the best material to build a castle?</p>	<p>Squash</p> <p>Bend</p> <p>Twist</p> <p>Absorbent</p> <p>Waterproof</p>	<p>Elastic</p> <p>Rigid</p>	<p>John Dunlop – rubber</p> <p>Charles Macintosh</p>
	S	<p>Flames and Fevers</p> <p>Big question: What living things are in our habitat?</p>	<p>Children can identify differences between things that are living, that are dead and that have never been alive. Children recognise that living things can be grouped in a variety of ways. Children explore and use classification keys.</p> <p>Children can identify differences between things that are living and explain what a living creature needs to survive.</p> <p>Children describe how plants are a living thing and need water, light and a suitable temperature to grow and stay healthy.</p> <p>Children notice that animals, including humans, have offspring which grow into adults</p> <p>Outcome questions:</p> <p>Name three things that were never living (e.g. plastic, rock, metal)</p> <p>What are the characteristics of all Living things? MRS GREN (movement, respiration, sensitivity, growth, reproduction, secretion, nutrition)</p> <p>Name three living things we might find around school? (e.g. grass, tree, bird, insect)</p> <p>Name three animals we might find in our local community? (cat, dog, squirrel)</p>	<p>Living – dead – never alive</p> <p>move</p> <p>grow</p> <p>plants</p> <p>animals</p> <p>growth</p> <p>baby</p> <p>child</p> <p>adult</p> <p>old person</p> <p>names of animals and their babies</p>	<p>breathe</p> <p>sense</p> <p>survive</p> <p>habitat</p> <p>offspring</p> <p>respiration</p> <p>sensitivity</p> <p>secretion</p> <p>nutrition</p> <p>reproduction</p> <p>toddler</p> <p>teenager</p>	

			<p>Name two plants we might find in our local community? (apple tree, grass) Where does an adult _____ come from? (e.g. chick/chicken, cat/kitten, caterpillar/butterfly)</p>			
S	<p>Deep Down Under</p> <p>Big question: Why do plants and creatures live where they do?</p>	<p><i>Children can identify differences between things that are living and explain what a living creature needs to survive, including details about a suitable habitat, exercise and hygiene.</i></p> <p>Recognise that environments can change and that this can sometimes pose dangers to specific habitats.</p> <p>They can also identify and create food chains showing food sources for a range of creatures. Chn know that animals have offspring that grow into adult versions.</p> <p>Children will make inks with the plants that grow in the habitats and find out and describe how plants need water, light and a suitable temperature to grow and stay healthy (Y2 Spring). Children will observe and describe how seeds and bulbs grow into mature plants</p> <p>Outcome questions: What do all living things need to survive? (food, water and a safe place to live) Describe a food chain. (e.g. grass, cow, human)</p>	<p>Habitat – seashore, woodland, ocean, rainforest river mountain Food chain Shelter Log – leaf litter – stony path Hot/warm /cold Dry/damp /wet Bright/shade/dark</p>	<p>Conditions Micro-habitat arctic desert herbivores carnivores omnivores</p>	<p>urban coastal</p>	

Y3	A	<p>Who's Who Under the Canopy?</p> <p>Big question: What does a plant need to survive?</p>	<p>Children can use classification keys to group living things, including plants. They can also link the functions of the parts of a plant to the requirements for life and growth, and explain the process of water transportation. Children are able to recognise the importance of the flower in the life cycle.</p> <p>Children can recognise that living things can be grouped in a variety of ways.</p> <p>Children can explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.</p> <p>Children can recognise that environments can change and that this can sometimes pose dangers to living things.</p> <p>Outcome questions:</p>	<p>Flowering plants Root – stem – trunk – leaf Air – light – water Seed Food chain Producer – prey – predator Nutrition – nutrients</p>	<p>Nutrient/nutrition Life cycle Pollination Fertilisation Dispersal</p>	<p>Reproduction</p>
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		<p>What do plants need to grow? (air, light, water, nutrients)</p> <p>What parts of a plant help provide nutrition? (root, stem, leaves)</p> <p>Name a variety of animal groups (mammals, birds, insects, fish, reptile, amphibians)</p> <p>What animals might we see around our school? (humans, birds, insects)</p>			
S	<p>Horrid Henry?</p> <p>Big question: How do humans differ from other animals?</p>	<p>Children can explain the function of different types of teeth.</p> <p>Children can identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat. They identify and describe that humans and some other animals have skeletons and muscles for support, protection and movement. They can also begin describe the teeth function of the human digestive system (Year 4).</p> <p>Outcome questions:</p> <ul style="list-style-type: none"> - How do humans get nutrition? (eating food - they can not make their own food)) - What does nutrition mean? (what is needed for (health and growth) - What are the food groups? (carbohydrates, protein, sugars, fats, vitamins, minerals, fibre and water) - What is the function of the skeleton? (support, protection, movement) - What are muscles for? (support, movement) - List and label 3 types of teeth. - What are the uses of the different teeth? (grinding, cutting, tearing) - How does food travel through our body? (mouth, oesophagus, stomach, large intestine, small intestine, anus) - Name an animal that has an endoskeleton? (human, cat, penguin) - Name an animal that has an exoskeleton? (beetle, ant, spider) - Name a vertebrate (fish, dog) 	<p>Teeth</p> <p>Incisor – cut/slice</p> <p>Canine – rip/tear</p> <p>Molar – chew/grind</p> <p>Skeleton – support/protection function</p> <p>Skull – ribs – joint</p> <p>Muscle – movement/pull</p>	<p>Enamel</p> <p>endo/exo skeleton</p> <p>vertebrate /invertebrate</p> <p>Digestion – digestive system</p> <p>Transport s</p> <p>Stomach</p> <p>compacts carbohydrates, protein, sugars, fats, vitamins, minerals, fibre and water</p> <p>Contract - expand</p>	<p>Acid</p> <p>Enzymes absorb</p>

			- Name an invertebrate (octopus, crab)			
	S	<p>Why do we Love Peterborough?</p> <p>Big question: What makes a shadow?</p> <p>Big question: What does a magnet attract?</p>	<p>Children can explain the reflection and absence of light, linking their understanding to the formation of shadows. They can also find patterns in changing shadows.</p> <p>Outcome questions: What could reflect light? (e.g. water, the moon, shiny surface) Name a transparent material. (any object light travels through easily) Name a translucent material. (any object that lets <u>some</u> light) Name an opaque material. (any object that does not let light travel through) Dark is the absence of what? (light)</p> <p>Children can compare how things move on different surfaces. They can recognise that some forces need direct contact, but magnetism works at a distance, and make observations about which materials are attracted or repelled. Children can group materials based on magnetic properties, and discuss how the two poles attract or repel each other.</p> <p>Outcome questions: Name three magnetic items found in school? (e.g. scissors, paper clips, white board) What do like poles do - repel or attract? (repel)</p>	<p>Reflect (-tion) Absence Shadow Blocked Solid Natural/m an-made</p> <p>Change magnetic attract repel contact pole push pull force</p>	<p>Artificial opaque transparent translucent</p> <p>magnetic field friction surface</p>	
Y4	A	<p>Rags to Riches</p> <p>Big question: Can we make a light bulb work?</p>	<p>Children can construct simple circuits, identifying the components. They can explain why a bulb lights or not, using their understanding of complete circuits and switches. Children can investigate different materials as conductors and insulators, and link metal to the conduction process.</p> <p>Outcome questions: What happens to a bulb in an incomplete circuit? (It does not light up) Name four things that could make a complete circuit? (e.g. two wires, cell (battery), bulb) What flows around a circuit? (electricity)</p>	<p>positive negative Electricity Circuit Battery – wire – bulb – buzzer Motor – crocodile clip Switch – open/clos ed</p>	<p>Appliance Cell Insulator Conducto r Compone nt Mains</p>	<p>Hazardou s</p>

				Wood/rubber/plastic/glass Metal/water Safety		
S	<p>Law and Order</p> <p>Big question: How are soil and fossils formed?</p> <p>Big question: How does a change in temperature affect different materials?</p>	<p>Children can compare and group rocks based on their properties, linking this to their formation. They can recognise the composition of soil, and give a simple explanation of how a fossil is formed.</p> <p>Children can sort materials into the states of matter, and identify what happens when some materials are exposed to a change in temperature.</p> <p>Outcome questions: What rocks are formed by magma or lava? (igneous) What rocks are formed by layers of sediment? (sedimentary) Rock that started out as igneous or sedimentary rock but changed due to being exposed to extreme heat or pressure is called what? (metamorphic)</p>	Rock stone pebble layers texture Body fossil Cast fossil bone flesh Extinct Top soil - sub soil Solid – liquid – gas Evaporate – condense (-tion) State of matter Freeze – cool Heat - melt absorbs water,	boulder grain Igneous Metamorphic Sedimentary Organic matter Celsius Vapour Process minerals, marble, chalk, granite, sandstone, slate, types of soil (e.g. peaty, sandy, chalky, clay)	crystals Anthropic Permeable Impermeable Particle	
S	<p>Bewilderwood</p> <p>Big question: How can sounds vary?</p>	<p>Children can relate sound to vibration and how it travels to the ear.</p> <p>Chn can identify how sounds are made, associating some of them with something vibrating. They recognise that vibrations from sounds travel through a medium to the ear and can find patterns between the pitch of a sound and features of the object that produced it, and the volume compared to the strength of the vibrations. Chn can investigate what happens to a sound as the distance from the source increases and measure sounds through different insulation materials.</p>	ear sound high low volume	vibrate travel pitch faint loud	vibration insulation	

		<p>Big question: Why do living things have different diets?</p>	<p>Outcome questions: What part of the body senses sound? (ear) The highness or lowness of a sound is called the? (pitch) The loudness of sound is called the? (Volume) What does a sound insulator do? (blocks sound) How does a sound travel from an object to the ear? (vibration, sound waves) Children can create complex food chains, showing the nutritional requirements of different creatures, including humans. They can also describe the function of the human digestive system (including teeth from Year 3).</p> <p>Outcome questions: Recap from Y3: Where does food enter the body? (mouth) What is the part of teeth in the digestive system? (They break down food) How does saliva help in the digestive system? (helps food to be swallowed) Identify (label) the parts of the digestive system): (oesophagus, stomach, small intestine, large intestine, rectum, anus) Identify a food chain with the words (predator, prey, consumer and producer) Name two herbivores (e.g. rabbit, cow) Name two carnivores (e.g. lion, tiger) Name two omnivores (e.g. fox, pig, human) Why do herbivores, carnivores and omnivores have different teeth? (depending on diet) What do arrows in a food chain mean? (eaten by) Why could an adder not live very long in the arctic? (food chain not available to sustain nutrition)</p>	<p>food chain</p> <p>stomach</p> <p>teeth</p> <p>digestion/ive</p> <p>nutrition</p> <p>herbivore carnivore omnivore</p>	<p>large intestine</p> <p>small intestine</p> <p>oesophagus rectum anus</p> <p>producer consumer predator prey</p>	
Y5	A	<p>Sea of Tranquility</p> <p>Big question: How do forces affect us?</p> <p>Big question: How do the earth and moon move?</p>	<p>Children can explain forces, such as gravity, air resistance, water resistance and friction.</p> <p>Outcome questions: Unsupported objects fall towards the Earth because of the force of? (gravity) What causes an object to start moving, stop moving, speed up, slow down or change direction. (forces)</p> <p>They can describe the earth, sun and moon as being approximately spherical,</p>	<p>Force – push/pull</p> <p>Air resistance</p> <p>Water resistance</p> <p>Friction</p> <p>Gravity</p> <p>Newton</p> <p>Earth – sun – moon – star</p>	<p>Opposing</p> <p>Active – reactive</p> <p>Spherical</p> <p>Constellation</p> <p>Waxing/waning</p> <p>Crescent – gibbous</p>	<p>Geocentric</p> <p>Heliocentric</p>

		<p>and explain their movements in relation to the sun and each other. The children can recognise how the earth's movement causes day and night.</p> <p>Outcome questions: What is the sun? (a star) What is at the centre of our solar system? (the sun) Name the eight planets (Earth, (Mercury, Jupiter, Saturn, Venus, Mars, Uranus, Neptune) The Earth rotates on its axis every? (24 hours) The Earth orbits the sun every (1 year/ 365 days) The moon orbits the Earth approximately every (28 days/ 1 month) What approximate shape are the moon and the 8 planets? (spherical)</p>	<p>Axis – tilt – rotate (-tion) Day - night Phases of the Moon Names of planets - solar system</p>		
S	<p>Raiders and Traders</p> <p>Big question: Can we predict and justify the use of materials, based on the properties?</p> <p>Big question: How can materials be changed?</p>	<p>Children can use comparative and fair testing to group everyday materials, based on properties such as hardness, solubility, conductivity and magnetic response. They can use evidence to identify and justify particular uses for materials, including metals, wood and plastic.</p> <p>Children can use their understanding of materials to decide how to effectively separate a mixture. They can predict if a material will dissolve, and make suggestions for how to recover it. Children can demonstrate an understanding of reversible and irreversible changes associated with burning, oxidisation and chemical reactions.</p> <p>Outcome questions: Name a material that is good at conducting electricity (e.g. copper) Name a material that is not magnetic (e.g. wood) What are the three different states of materials called? (liquid, solid, gas). Properties include hardness, transparency, electrical and thermal conductivity and attraction to magnets. Name a materials will dissolve in a liquid and form a solution (e.g.sugar) Name a material that is insoluble and form sediment (e.g. sand)</p>	<p>Properties Hard(ness), Conductor/ insulator Transparent/ cy Magnetic</p> <p>Evaporation Dissolve – solution – mix – filter Reversible/ir reversible Burning - rusting Chemical reaction</p>	<p>Conductivity</p> <p>Soluble (-ity) Insoluble – suspension Permeable Oxidisation</p>	

			<p>Mixtures can be separated by what three methods? (filtering, sieving and evaporation).</p> <p>Name 2 changes that are not reversible. (e.g. burning wood, rusting and mixing vinegar with bicarbonate of soda)</p>			
S	<p>Tomb Raiders</p> <p>Big question:</p> <p>Big question:</p> <p>How do humans develop over time?</p> <p>Big question:</p> <p>What do life-cycles look like?</p>	<p>Children can recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. (DT link)</p> <p>Outcome questions: A m_____ is a device that allows a small force to be increased to a larger force. (mechanism) Name 3 different mechanisms, also known as simple machines. (Pulleys, levers and gears)</p> <p>Children can describe the changes as humans develop to old age. (PSHE)</p> <p>Outcome questions: Describe the changes as humans develop to old age. (When babies are young, they grow rapidly. They are very dependent on their parents. As they develop they learn many skills. At puberty the body changes and develops primary and secondary sexual characteristics. This enables the adult to reproduce.)</p> <p>Children describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. Children describe the life process of reproduction in some plants and animals.</p> <p>Outcome questions: Name two live born animal offspring (baby, kitten) Name two animal that lay eggs (chicken, snake) Are bulbs, tubers, runners and plantlets examples of asexual or sexual plant reproduction? (asexual) Wind or insects can often help a plant with _____? (pollination)</p>	<p>puberty</p> <p>Life cycle, reproduce egg, live young, runners, bulbs, cuttings</p> <p>, sexual, sperm, fertilises, metamorphosis, asexual, plantlets,</p>			
Y6	A	<p>Magic, Mystery or Mayhem?</p>	<p>They can identify how certain creatures have adapted to their environment, making links to evolution. Children are able to recall how fossils are formed, and</p>	<p>Offspring Characteristics – genetics</p>	<p>Mutation Survival of the fittest</p>	

	<p>Big question: How do living things adapt over time?</p> <p>Big question: Can I modify shadows?</p>	<p>explain how they provide information about historical creatures. (Into University) Children are able to explain how humans change over time, and how offspring resemble aspects of their parents. (IntoUniversity)</p> <p>Outcome questions: Can explain the process of evolution. Can give examples of how plants and animals are suited to an environment. Can give examples of how an animal or plant has evolved over time e.g. penguin, peppered moth</p> <p>Children can explain how they see light, using the concept of straight lines and reflection. They can predict what a shadow will look like, based on the casting object, and are able to manipulate the size and shape by moving the light source.</p> <p>Outcome questions: How does light travel? (straight lines) Can describe, with diagrams or models as appropriate, how light travels in straight lines either from sources or reflected from other objects into our eyes. Can describe, with diagrams or models as appropriate, how light travels in straight lines past translucent or opaque objects to form a shadow of the same shape</p>	<p>Inherited – variation Environmental Adaptation – evolution Fossil - formation</p> <p>Travel Straight line Source – object – shadow Cast Opaque/translucent</p>	<p>Filter Translucent</p>	
S	<p>Big question: Answering the Call</p> <p>Why is a healthy lifestyle important?</p>	<p>Children can explain the importance of exercise and a balanced diet. They understand how lifestyle choices, including the use of drugs, impact on their health. Children are able to explain how the heart, blood vessels and the blood are vital parts of their circulatory system, and can explain their function. PSHE Link - body safety</p> <p>Outcome questions: Can draw a diagram of the circulatory system and label the parts and annotate it to show what the parts do. Produces a piece of writing that demonstrates the key knowledge e.g. explanation text, job description of the heart</p>	<p>Impact – exercise/diet/drugs Lifestyle – damage Circulatory system Heart – blood vessels</p>	<p>Capillary Artery Vein</p>	<p>Ventricle Aorta</p>

