



St Mary's
Catholic Primary School and Nursery

Year 4 Knowledge and Skills Tracker

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Science Knowledge Electricity	Science Knowledge Sound	Science Knowledge Animals including Humans	Science Knowledge Living things and their habitats	Science Knowledge States of Matter	Science Knowledge States of Matter
<p>*To know that common appliances run on electricity.</p> <p>*To understand and construct a simple series electrical circuit, identifying and naming its basic parts.</p> <p>*To know that a closed circuit is required for a lamp to light in a simple series circuit.</p> <p>*To know common conductors and insulators</p>	<p>*To Know how we hear sounds</p> <p>*To understand various patterns in pitch and volume of sounds.</p> <p>* To be able compare the pitch and volume made by different instruments and know why they are different.</p>	<p>*To know the simple functions of the basic parts of the digestive system in humans.</p> <p>*To know the different types of teeth in humans and their simple functions</p>	<p>*To understand that living things can be identified and grouped their local and wider environment.</p> <p>* To know that environment change can pose dangers to living things. Linked to current issues (Rainforests, bush fires -Australia)</p> <p>*To understand, interpret and be able to construct a variety of food chains.</p>	<p>*To know which materials around them are classed as solids, liquids and gases and understand how this impacts the way they can be used.</p> <p>*To know the difference between particles in solids, liquids and gases.</p> <p>*To know which states of matter can be heated and cooled and at which temperature.</p>	<p>*To know which materials around them are classed as solids, liquids and gases and understand how this impacts the way they can be used.</p> <p>*To know the difference between particles in solids, liquids and gases.</p> <p>*To know which states of matter can be heated and cooled and at which temperature.</p>

				<ul style="list-style-type: none"> *To know that some objects can turn in to more than one state. *To understand that temperature changes states. *To understand the water cycle. 	<ul style="list-style-type: none"> *To know that some objects can turn in to more than one state. *To understand that temperature changes states. *To understand the water cycle.
Science Skills	Science Skills	Science Skills	Science Skills	Science Skills	Science Skills
<ul style="list-style-type: none"> *Ask relevant questions and plan scientific enquiries to answer them * Set up simple and practical enquiries, comparative and fair tests *Record and report on findings from enquiries *Use results 	<ul style="list-style-type: none"> *Ask relevant questions and plan scientific enquiries to answer them * Set up simple and practical enquiries, comparative and fair tests. *Record and report on findings from enquiries *Use results 	<ul style="list-style-type: none"> *Ask relevant questions and plan scientific enquiries to answer them * Set up simple and practical enquiries, comparative and fair tests *Make systematic and careful observations and measurements to answer questions * Record and report on findings from enquiries. * Identify differences, similarities or changes related to 	<ul style="list-style-type: none"> *Ask relevant questions and plan scientific enquiries to answer them. *Make systematic and careful observations and measurements to answer questions * Record and report on findings from enquiries. 	<ul style="list-style-type: none"> *Compare and group materials as solids, liquids or gases *Observe that changes in temperature cause some materials to change state. 	<ul style="list-style-type: none"> *Compare and group materials as solids, liquids or gases *Observe that changes in temperature cause some materials to change state.

		<p>simple scientific ideas and processes</p> <ul style="list-style-type: none"> *Record and report on findings from enquiries *Use results 			
History Knowledge Invaders and Settlers (Anglo-Saxons)	History Knowledge Invaders and Settlers (Anglo-Saxons)	History Knowledge Invaders and Settlers (Vikings)	History Knowledge Invaders and Settlers (Vikings)	History Knowledge	History Knowledge
<ul style="list-style-type: none"> *To know who the Anglo-Saxons were and where they came from. *To know when, where and why the Scots and Anglo Saxons invaded Britain. *To understand how the Anglo-Saxons ruled Britain. *To know and appreciate different aspects of Anglo-Saxon art and culture. 	<ul style="list-style-type: none"> *To understand the differences between Anglo-Saxon villages and ours today. *To know who Alfred the Great was and why he was so great* *To know about the shift in beliefs of Anglo-Saxons to Christianity. 	<ul style="list-style-type: none"> *To understand where the Anglo-Saxon and Viking eras fit within Chronology of British History. *To know who the Vikings were and where they came from. *To know when, where and why the Vikings invaded Britain. *To know how the Vikings Travelled. *To know about significant Viking Raids (Lindisfarne). 	<ul style="list-style-type: none"> *To understand the difference between Anglo-Saxon/Viking Law/Justice compared to now. *To know about the death of Edward the Confessor and how this impacted on our country. 		

History Skills	History Skills	History Skills	History Skills		
<ul style="list-style-type: none"> *Choose appropriate sources to answer questions *Discuss historical changes in Britain; what caused them and the impact on life in Britain. *Identify and describe changes between specific periods of history. Create historically valid questions about cause and significance. 	<ul style="list-style-type: none"> *Give simple reasons as to why key events happened in history. *Discuss historical changes in Britain; what caused them and the impact on life in Britain. 	<ul style="list-style-type: none"> *To investigate how the past can be divided into different periods of time. * To give simple reasons as to why key events happened in History. *To be aware that the same time in History may be represented in different ways. 	<ul style="list-style-type: none"> *To be aware that the same time in History may be represented in different ways. *Choose appropriate sources to answer questions. 		
Geography Knowledge	Geography Knowledge	Geography Knowledge	Geography Knowledge	Geography Knowledge Rivers and Mountains	Geography Knowledge Rivers and Mountains
<ul style="list-style-type: none"> *To know who the Anglo-Saxons were and where they came from. 		<ul style="list-style-type: none"> *To know who the Vikings were and where they came from. 	<ul style="list-style-type: none"> *To know the names of world continents and countries and understand/compare how different 	<ul style="list-style-type: none"> *To know how rivers are formed. *To know the names of key world rivers. 	<ul style="list-style-type: none"> *To know how rivers are formed. *To know the names of key world rivers.

<p>*To know when, where and why the Scots and Anglo Saxons invaded Britain.</p> <p>*To know the differences in land-use from Anglo-Saxon times to now.</p> <p>* To understand the connection between Anglo-Saxon invasions/settlements and UK place names.</p> <p>*Compare a region of the UK and a region of a European country.</p>		<p>*To know when, where and why the Vikings invaded Britain.</p>	<p>climates impact differently on living things.</p>	<p>*To know the different features of a river.</p> <p>*To understand how Rivers impact daily life.</p> <p>*To understand how rivers have helped shape the developed world.</p> <p>*To know how mountains are formed.</p> <p>*To know the biggest peaks in the world.</p>	<p>*To know the different features of a river.</p> <p>*To understand how Rivers impact daily life.</p> <p>*To understand how rivers have helped shape the developed world.</p> <p>*To know how mountains are formed.</p> <p>*To know the biggest peaks in the world.</p>
Geography Skills	Geography Skills	Geography Skills	Geography Skills	Geography Skills	Geography Skills
<p>*To read and interpret maps and atlases.</p> <p>*To locate places on an OS map using a 4-figure grid reference.</p>		<p>*To read and interpret maps and atlases.</p>	<p>*Locate world continents/countries</p> <p>*Locate the Equator, Northern and Southern Hemispheres and the Arctic and Antarctic Circles.</p>	<p>*Describe the workings of rivers, mountains, volcanoes and earthquakes.</p> <p>*Follow a route on an OS map.</p> <p>*Use the key to interpret symbols</p>	<p>*Describe the workings of rivers, mountains, volcanoes and earthquakes.</p> <p>*Follow a route on an OS map.</p> <p>*Use the key to interpret symbols</p>

*To describe different types of land use.			*To describe different types of land use.	and marks on an OS map for routes. *Make a simple scale drawing. Identify and interpret relief maps.	and marks on an OS map for routes. *Make a simple scale drawing.
Art Knowledge	Art Knowledge	Art Knowledge	Art Knowledge	Art Knowledge	Art Knowledge
*To know and appreciate different aspects of Anglo-Saxon art and culture.		*To know which colours are appropriate to use for a variety of purposes. *To know which types of paint work best on different media.		*To appreciate work created by inspirational artists. *To take inspiration from great artists and understand how this can be used to influence their own work.	
Art Skills	Art Skills	Art Skills	Art Skills	Art Skills	Art Skills
*Mix and match paint colours for purpose. *Prepare, organise and clear away equipment. *Use different types of lead pencil *Work with a variety of pen types and make a variety of lines		*Prepare, organise and clear away art equipment *Mix thicknesses of paint for different purposes *Make a 3D structure. *With pastel/charcoal, vary thickness of lines and		*Discuss and describe well-known artists' and architects' work. *Use a sketchbook to record observations and develop ideas. *Prepare, organise and clear away art equipment.	

*With pastel/charcoal, vary thickness of lines and use side to build up layers.		use side to build up layers.			
D&T Knowledge	D&T Knowledge	D&T Knowledge	D&T Knowledge	D&T Knowledge	D&T Knowledge
	*To know the basic ingredients to make bread. *To know the difference between Anglo-Saxon bread recipes and bread recipes today.		*To know the key features of a Viking Long Ship and how this helped or hindered them. *To understand the difference between the design of a Viking Long Ship, other famous designs in history and modern ships today.		*To know which tools work best when creating a wood structure.
D&T Skills	D&T Skills	D&T Skills	D&T Skills	D&T Skills	D&T Skills
	*Use the right tools to slice, spread, mix, knead and bake. *Weigh ingredients to an appropriate level of accuracy. *Design products that are functional and designed for purpose.		*Generate and develop ideas through discussion. *Evaluate work against own design criteria. *Cut slots.		· Create simple joins with wood. · Measure pieces and make holes in wood. *Use simple mechanical systems in products · Evaluate work against own design criteria.

	*Evaluate work against own design criteria.				
Music Knowledge	Music Knowledge	Music Knowledge	Music Knowledge	Music Knowledge	Music Knowledge
*To know and recognise the differences and similarities between Anglo-Saxon music and today's.	*To know and recognise that instruments produce sounds of different pitch and know why this happens.	*To know which instruments create sounds which are best suited to the rhythm and melody composed.	*To know the difference between different types of songs. *To know what makes a good performance.	*To know standard notation. *To know and name a variety of instruments. *Use voice and copy a given scale.	*To know what a harmony is. *To know how to harmonise with others.
Music Skills	Music Skills	Music Skills	Music Skills	Music Skills	Music Skills
*To Express opinions about music from the past.	* To compare pieces, thinking about pitch, mood, rhythm and tempo.	*Perform simple rhythmic and melodic patterns on an instrument to accompany a song. *Reflect on, and improve own work	*Sing expressively in time to the beat and rhythm *Perform given compositions/songs from memory. *Perform as part of a group and individually to an audience.	*Improvise repeated patterns. *Compose simple tunes using a pentatonic scale. *Reflect on and improve own work.	*Take part in two-part songs and harmonies. *Perform as part of a group and individually to an audience.
Computing Knowledge Coding	Computing Knowledge Spreadsheets	Computing Knowledge Writing for different audiences.	Computing Knowledge Online Safety Effective Searching	Computing Knowledge Logo	Computing Knowledge Animation Hardware Investigators.

<ul style="list-style-type: none"> *To understand the process of coding. *To know and understand key coding vocabulary. *Use a computer program to produce a repeating pattern 	<ul style="list-style-type: none"> *To know how spreadsheets can be used in everyday life. 	<ul style="list-style-type: none"> *To know how to use a variety of fonts, letter sizes and other tools to write appropriately for a range of purposes. 	<ul style="list-style-type: none"> *To know how to keep safe online and what to do if a problem occurs. 	<ul style="list-style-type: none"> *To understand that some programs will encounter errors and that there are ways to fix this. 	
Computing Skills	Computing Skills	Computing Skills	Computing Skills	Computing Skills	Computing Skills
<ul style="list-style-type: none"> *To use selection in coding with the 'if/else' command. *To understand and use variables in 2Code. *To use flowcharts for design of algorithms including selection. *To use the 'repeat until' with variables to determine the repeat. *To use computational thinking terms decomposition and abstraction. 	<ul style="list-style-type: none"> *Choose from a variety of software and internet services to accomplish given goals. *Design and create content to accomplish a given goal. *Collect and combine information and data. 	<ul style="list-style-type: none"> *Choose from a variety of software and internet services to accomplish given goals. *Design and create content to accomplish a given goal. *Collect and combine information and data. 	<ul style="list-style-type: none"> *Use technology responsibly. *Recognise acceptable / unacceptable behaviour and content. *Appreciate how search results are selected. *Understand how computer networks can provide multiple services. *Understand the opportunities computer networks offer for communication. 	<ul style="list-style-type: none"> *Design and debug programs that accomplish specific goals. *Design and create programs that use a sequence. *Control physical systems. *Use logical reasoning to detect and correct errors in programs. 	<ul style="list-style-type: none"> *Choose from a variety of software and internet services to accomplish given goals. *Design and create content to accomplish a given goal. *Collect and combine information and data. *Understand how computer networks can provide multiple services. *Understand the opportunities computer networks

					offer for communication.
PE Knowledge Gymnastics	PE Knowledge Dance	PE Knowledge Swimming	PE Knowledge Swimming	PE Knowledge Games Orienteering	PE Knowledge Athletics
<p>*To know the names of key gymnastic moves and be able to identify them in performances.</p> <p>*To understand the positive benefits of exercise.</p>	<p>*To know a variety of dance techniques.</p> <p>*To know which dance moves work best together to create a sequence.</p> <p>*To know which dance moves are appropriate to different types of songs.</p>	<p>*To know and understand water safety.</p> <p>*To know a variety of swimming strokes and which they feel most confident in using.</p>	<p>*To know the importance of self-rescue and understanding how this could be used in real-life situations.</p>	<p>*To know how to pass a ball accurately, using hand-eye coordination.</p> <p>*To understand the link between hand-eye coordination and throwing a ball.</p> <p>*To understand competitive game techniques.</p> <p>* To know the points of a compass.</p> <p>*To know and identify basic skills on a map.</p>	<p>*To understand the importance of the link between health and fitness/physical exercise.</p> <p>*To know a variety of athletic sports.</p>
PE Skills	PE Skills	PE Skills	PE Skills	PE Skills	PE Skills
<p>*Perform a range of rolls with a good level of accuracy.</p> <p>*Create own stretching routine to prepare for gymnastics.</p>	<p>*Choreograph short routines in time with a given piece of music.</p> <p>*Explore different styles of dance and copy steps from</p>	<p>Beginner:</p> <p>*Swim 10m on front and back without stopping.</p> <p>*Use the correct arm and leg movements to swim front crawl</p>	<p>Advanced:</p> <p>*Swim a distance of 25m without stopping.</p> <p>*Swim using a range of strokes accurately.</p>	<p>*Move to catch a ball within a game, maintaining eye contact with the ball.</p> <p>*Pass a ball accurately when</p>	<p>*Sprint up to 100m.</p> <p>*Run 200m</p> <p>*Use the correct action to throw a javelin without a run up.</p>

<p>*Balance on pads and points. *Make a range of different shapes when balancing. *Combine shapes and balances in a performance. *Use all parts of the body when travelling in different ways.</p> <p>SWIMMING</p>	<p>them with increasing accuracy.</p>	<p>and backstroke. *Climb out of the pool unaided. *Submerge head under water and blow bubbles.</p> <p>Intermediate: *Swim a complete length of the pool, on front and back without stopping. *Use the correct arm and leg movements to swim breaststroke. *Tread water for at least two minutes. *Put head in the water for using different strokes.</p>	<p>*Perform different self-rescue actions. *Synchronised breathing with stroke.</p>	<p>moving around during a game. *Find space to move into within a game. *Use a range of techniques to help keep possession of the ball in a team game. Dribble a ball in a straight line</p> <p>*Read basic symbols on an orienteering map and start to create appropriate symbols. *Follow a school map to navigate around a simple course designed by themselves and others. *Use non-verbal communication strategies to help solve problems and complete challenges. *Evaluate own</p>	<p>*Use a push throw to throw a discus and shot put</p>
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				performance within a group or individual challenge.	
END POINTS	END POINTS	END POINTS	END POINTS	END POINTS	END POINTS
Children will understand how Anglo-Saxon invasions, settlements, art, religion and daily life have shaped our lives in Britain today.	Children will understand how Anglo-Saxon invasions, settlements, art, religion and daily life have shaped our lives in Britain today.	Children will understand how Viking invasions, raids, settlements, art, laws and daily lives have shaped our lives in Britain today.	Children will understand how Viking invasions, raids, settlements, art, laws and daily lives have shaped our lives in Britain today.	Children will understand how rivers are formed, the names of key world rivers and the different features of a river. They will understand how Rivers impact daily life and how rivers have helped shape the developed world.	Children will understand how mountains are formed and know the biggest peaks in the world.