








### Key of Knowledge | Year 5


Outlined below is the 'sticky' knowledge for Year 5. We expect children to know and remember the following information, which is derived from our broader curriculum expectations. These concepts are revisited in our regular focused retrieval sessions – as well as through lessons, where prior knowledge is identified, built upon and extended. Number in brackets is amount of knowledge points expected per unit.


Science	Animals including humans	Living things and their habitats	Forces	Earth and Space
	<ul style="list-style-type: none"> <li>To know the stage of growth in human development.</li> <li>To explain how babies grow and develop.</li> <li>To know the changes which happen to boys and girls during puberty.</li> <li>To describe the changes as humans develop to old age.</li> <li>To know different animals have different life expectancies.</li> <li>To know different animals have different gestation periods.</li> </ul>	<ul style="list-style-type: none"> <li>To explore sexual reproduction in plants</li> <li>To investigate asexual reproduction in plants.</li> <li>To describe the life cycles of mammals, amphibians, insects and birds.</li> <li>To compare the life cycles of mammals, amphibians, insects and birds.</li> <li>To know the similarities/difference between reproduction in plants and animals.</li> </ul>	<ul style="list-style-type: none"> <li>To identify forces and explore the effect of gravity.</li> <li>To explore the effect of friction</li> <li>To explore the effect of air resistance</li> <li>To explore the effect of water resistance</li> <li>To explore and design a simple mechanism (pulleys and levers)</li> </ul>	<ul style="list-style-type: none"> <li>To know the planets in order and know the sun, moon and Earth are approximately spherical bodies.</li> <li>To describe the movement of the Earth and planets in relation to the sun.</li> <li>To know why we have day and night</li> <li>To know why the sun moves across the sky and the phases of the moon.</li> </ul>
	<b>Properties and changes in materials</b> <ul style="list-style-type: none"> <li>To compare properties of materials</li> <li>To explore why a particular material has been used.</li> <li>To investigate which materials dissolve</li> <li>To use different processes to separate mixtures or materials</li> <li>To identify and explain reversible and irreversible changes.</li> </ul>			
History	Anglo Saxons	Vikings		
	<ul style="list-style-type: none"> <li>Anglo-Saxons (and Scots) The Anglo-Saxons raided Roman Britain around 400AD.</li> <li>They came to Britain looking for farmland due to flooding of their own lands.</li> <li>The Anglo Saxons came from Germany, Netherlands and Denmark and crossed the North Sea in wooden boats.</li> <li>The Anglo-Saxons mainly settled alongside the Britons.</li> <li>Anglo-Saxon settlements were very small; they did not understand the Roman ways and would not live in their towns.</li> <li>They did not understand the Roman ways and would not live in their towns. The Anglo Saxons lived in wooden huts where families all slept together all in one room.</li> <li>Artefacts from this time show that the Anglo-Saxons were sophisticated craftsmen.</li> <li>Anglo-Saxons were proud warriors.</li> <li>The Anglo-Saxons were Pagans when they first arrived in Britain but gradually became Christians.</li> <li>Anglo-Saxon Britain saw the rise of Christianity with churches and monasteries being built.</li> </ul>	<ul style="list-style-type: none"> <li>The Vikings sailed huge distances on long ships.</li> <li>Vikings were expert boat builders and sailors. Their long ships were designed to float high in the water making landing on beaches easy.</li> <li>The Vikings launched their first raid in 793AD at Lindisfarne and stole treasures from monasteries and murdered monks and civilians.</li> <li>One of the most famous Anglo-Saxon kings was Alfred, who ruled from 871-899AD, fought the Vikings and then made peace so that English and Vikings settled down to live together.</li> <li>The Vikings continued to raid, get paid and leave.</li> <li>For the everyday people living under both Anglo-Saxon and Viking control, life was similar in many respects with farmworkers who worked the land and craftsmen who worked with various materials such as metals.</li> <li>Viking society was structured in a similar way to Anglo-Saxon with a king.</li> <li>In 1066 there were two invasions of England: a Viking and a Norman invasion.</li> <li>The Vikings were defeated but the Normans succeeded in Conquering England, during the Battle of Hastings, bringing an end to Anglo-Saxon Britain.</li> </ul>		

<b>Geography</b> 	<b>The Amazon Rainforest</b> <ul style="list-style-type: none"> <li>The Amazon is in countries like Brazil, Peru, and Colombia.</li> <li>The Amazon rainforest is important because it gives oxygen, helps with the climate, has many plants and animals, and affects water systems. To protect it, we can stop cutting down trees, use land wisely, and plant more trees.</li> <li>The local area and a region in South America may have some things in common, like the weather or nature, but they can also be different in culture, language, and how they use the land.</li> <li>The climate in Amazonas is hot, wet, and humid because it is near the equator.</li> </ul>	<b>Mountains</b> <ul style="list-style-type: none"> <li>Fold mountains are formed when two tectonic plates meet and push against each other.</li> <li>The climate in the alpine region is cold and often snowy. It can be dry in some places and wet in others, depending on the height and location.</li> <li>Tourism in the Alps has both advantages and disadvantages. It helps the economy but can also cause pollution and damage to the environment.</li> <li>Avalanches happen when snow on a mountain slope moves quickly downhill, often because of heavy snow, warm weather, or changes in the snow.</li> <li>Avalanches can be prevented by controlling the snow on slopes, building barriers, or using controlled explosions to release snow safely.</li> </ul>	<b>Our local area</b> <ul style="list-style-type: none"> <li>Change in Loftus is continual, meaning it is always happening, whether in the landscape, the community, or the economy.</li> <li>In the past, Loftus was a small mining village, with coal mining playing a significant role in its development.</li> <li>Loftus will continue to change, with developments such as new housing, businesses, and improvements to transport infrastructure.</li> <li>At present, Loftus has seen changes in its town center, with shops and services evolving, and some areas being redeveloped.</li> <li>Geographical vocabulary such as "urbanisation," "redevelopment," and "infrastructure" can be used to describe changes happening in Loftus</li> </ul>
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<b>PSHE</b> 	<b>Relationships</b>	<b>My Body, My Health</b>	<b>Life Cycles</b>	<b>Keeping Safe &amp; Looking after myself</b>	<b>People who help me</b>	<b>Living in Our World</b>	<b>Feelings &amp; Attitudes, Mental Wellbeing</b>


<b>Art and Design (knowledge of art and artists)</b> 	<b>Drawing</b> <ul style="list-style-type: none"> <li>The horizon line is a horizontal line that runs across the paper or canvas to represent the viewer's eye level, or outline where the sky meets the ground.</li> <li>Know that temporary construction lines can be used to create a vanishing viewpoint.</li> <li>Know that 3D objects have a tactile texture, and when this is captured in a drawing, it is called implied texture.</li> <li>Scaling is used when something needs to be emphasised</li> </ul>	<b>Painting</b> <ul style="list-style-type: none"> <li>Analogous colours are next to each other on the colour wheel</li> <li>To blend paints softly, they must use minimal pressure back and forth using an appropriate brush.</li> <li>A palette knife is used to create thick tactile texture.</li> </ul>	<b>Sculpture</b> <ul style="list-style-type: none"> <li>Different materials can be used to form an aesthetic free standing sculpture</li> <li>Colour can be used to emphasise items and areas within a sculpture.</li> <li>Different levels of imprinting and patterning can detract from or add value to the overall sculpture.</li> </ul>
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<b>Design Technology</b> 	<b>Mechanisms</b> <ul style="list-style-type: none"> <li>Mechanical systems that use gears in everyday objects (e.g. bicycle, clock, etc.).</li> <li>Gears and pulleys allow us to transfer movement and force from one part of a mechanical system to another.</li> <li>Gears allow us to increase the output of a mechanism.</li> <li>Market research is a way of collecting information about problems or needs.</li> <li>Constraints are things that might stop our ideas from being successful.</li> <li>Original and innovative ideas are different from what has been made before.</li> <li>Annotations are detailed labels and comments on diagrams.</li> <li>Risks are things that might happen.</li> <li>Hot glue creates a strong bond quickly.</li> <li>It is often better to choose safer equipment.</li> <li>Sustainability means thinking about the materials that were used to make a product and how the product was made.</li> </ul>	<b>Textiles</b> <ul style="list-style-type: none"> <li>To know that blanket stitch is useful to reinforce the edges of a fabric material or join two pieces of fabric.</li> <li>To understand that it is easier to finish simpler designs to a high standard.</li> <li>To know that soft toys are often made by creating appendages separately and then attaching them to the main body.</li> <li>To know that small, neat stitches which are pulled taut are important to ensure that the soft toy is strong and holds the stuffing securely.</li> </ul>	<b>Structures</b> <ul style="list-style-type: none"> <li>To understand some different ways to reinforce structures.</li> <li>To understand how triangles can be used to reinforce bridges.</li> <li>To know that properties are words that describe the form and function of materials.</li> <li>To understand why material selection is important based on their properties.</li> <li>To understand the material (functional and aesthetic) properties of wood.</li> </ul>
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<b>RE</b> 	<b>How far would a Sikh go for his/her religion?</b> <ul style="list-style-type: none"> <li>Sikhism was founded by Guru Nanak around 500 years ago in a place called the Punjab.</li> <li>Sikhs believe in one God who guides and protects them.</li> <li>Sikhs believe everyone is equal before God.</li> <li>Sikhs believe your actions are important and you should lead a</li> </ul>	<b>Is the Christmas story true?</b> <ul style="list-style-type: none"> <li>Christians learn from the Christmas Story that Jesus was the incarnation of God.</li> <li>Reflect on stories and events to consider whether they happened exactly as recorded.</li> </ul>	<b>Are Sikh stories important today?</b> <ul style="list-style-type: none"> <li>The Guru Granth Sahib contains the words spoken by the Gurus and is the word of God.</li> <li>Retell Sikh stories: The Rich Man and the Needle; Milk and the Jasmine Flower; and</li> </ul>	<b>How significant is it for Christians to believe God intended Jesus to die?</b> <ul style="list-style-type: none"> <li>Explain how some events in Holy Week tell Christians about Jesus's purpose/destiny.</li> <li>Christians believe that Jesus defeated death through his resurrection.</li> <li>Jesus was welcomed on Palm Sunday into Jerusalem by crowds of people emphasising his importance.</li> </ul>	<b>What is the best way for a Sikh to show commitment to God?</b> <ul style="list-style-type: none"> <li>New rules mean Sikhs across the UK will no longer face disciplinary action for wearing turbans in the workplace.</li> <li>The Sikh religion forbids the use of alcohol and other intoxicants.</li> <li>Sikhs are also not allowed to eat meat – the principle is to keep the body pure.</li> <li>Akal Takht is the chief centre of</li> </ul>	<b>What is the best way to show commitment to God?</b> <ul style="list-style-type: none"> <li>Be introduced to the Commandments of commitment require.</li> <li>Know some and about</li> <li>Understand different levels within Christianity the individual</li> <li>Consider a clear responsibility it is essential or take Holy show their</li> </ul>
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	<p>good life. Ways to lead a good life: keep God in your heart and mind at all times, live honestly and work hard, treat everyone equally, be generous to those less fortunate, serve others.</p> <ul style="list-style-type: none"> <li>The Sikh place of worship is called a Gurdwara – the Golden Temple.</li> <li>The Langar is a shared meal.</li> </ul>	<ul style="list-style-type: none"> <li>Find out information about the Christmas Story from the Bible.</li> </ul>	<p>explain what we can learn from them.</p>	<ul style="list-style-type: none"> <li>Explain whether God intended Jesus to be crucified or if his crucifixion was the consequence of Holy Week.</li> </ul>	<p>religious authority in Sikhism. It is located in India.</p>
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Music	Untuned Percussion	Structure	Musical Notation	Singing	Composition	Improvisation
						

Online Safety	Privacy and Security	Online Relationships	Health, Wellbeing and Lifestyle	Online Bullying
				
	Online Reputation	Managing Online Information	Self-image and Identity	Copyright and Ownership

Computing	VR/AR	Publishing (Pages)	Presentation (Keynote)	Filmmaking (iMovie)
	<ul style="list-style-type: none"> <li>Show me how to create a new project and rename it.</li> <li>Tell me how to add new objects from the gallery and manipulate them to position and size effectively.</li> <li>Show me how to format objects to add colour.</li> <li>Tell me how to add actions to objects and format labels.</li> <li>Show me how to export effectively.</li> <li>Tell me how to produce a model in VR from a 2D plan.</li> </ul>	<ul style="list-style-type: none"> <li>Tell me how to produce an eBook.</li> <li>Show me how to create a template from your own design.</li> <li>Tell me how to use a template and adapt it to your own design.</li> <li>Tell me how to produce a short eBook, including at least one table of data.</li> <li>Show me how to produce a template eBook for recording information.</li> </ul>	<ul style="list-style-type: none"> <li>Show me how to create a template from your own design.</li> <li>Tell me how to use assets from other apps within a presentation.</li> <li>Show me how to create a short movie to present an idea using slides and VoiceOver.</li> <li>Tell me how to produce a short video from a recorded presentation about what you have learned.</li> <li>Show me how to create and deliver a 3-minute presentation about work you have been doing in a curriculum subject that includes images or assets from other apps</li> </ul>	<ul style="list-style-type: none"> <li>Show me how to alter transitions in a presentation.</li> <li>Tell me how to use a trailer/storyboard effectively to present an idea.</li> <li>Show me how to use assets made in other apps in a short film, such as a title page from Pages.</li> <li>Tell me how to create a storyboard to illustrate a set of instructions, such as a recipe, and adapt from premade ones.</li> <li>Show me how to produce a short VoiceOver documentary that uses screenshots from other apps to enhance audience engagement (e.g., data from Numbers, VR object screen recordings, etc.), such as converting fractions into decimals.</li> </ul>
	Sound production (Garageband)	Coding (Scratch)	Data Handling (Numbers)	
	<ul style="list-style-type: none"> <li>Show me how to export music to use in another app from GarageBand.</li> <li>Tell me how to create a short 'podcast' with a range of sections (voice/music/recordings).</li> <li>Show me how to 'jam' with other players.</li> <li>Tell me how to create a short podcast about the key moments of their life in the rainforest.</li> </ul>	<ul style="list-style-type: none"> <li>Show me how to use arrow keys to control objects in a game.</li> <li>Tell me how to make a clicker game.</li> <li>Show me how to make a chase game.</li> <li>Tell me how to adapt a game style to a curriculum objective.</li> <li>Show me how to create a chase game set in a period of history you have been studying.</li> </ul>	<ul style="list-style-type: none"> <li>Data Handling</li> <li>Show me how to use basic formulae in a spreadsheet.</li> <li>Tell me how to create simple forms to organise data.</li> <li>Show me how to export 'assets' such as tables/graphs to be used in other apps.</li> <li>Tell me how to produce a spreadsheet that calculates the different costs for a recipe at different scales.</li> <li>Show me how to create a basic info file (from the 'Basic Form' template).</li> </ul>	

French	Autumn	Spring	Summer
	<ul style="list-style-type: none"> <li>Know the nouns and indefinite articles for 8 common pets.</li> <li>Ask somebody if they have a pet and give an answer back.</li> </ul>	<ul style="list-style-type: none"> <li>Recognise and recall the 9 weather expressions in French from memory.</li> <li>Ask what the weather is today and give a reply in French.</li> </ul>	<ul style="list-style-type: none"> <li>Say and write in French whether they live in a house or an apartment.</li> <li>Say what room we have and do not have at home using the key structure chez</li> </ul>

	<ul style="list-style-type: none"> <li>• Say in French what pet we have/do not have and give our pet's name.</li> <li>• Start to use the simple connectives et (and) and mais (but) to make more complex and interesting sentences.</li> <li>• Recognise and recall the 12 months of the year in French.</li> <li>• Ask what the date is and say the date in French.</li> <li>• Ask somebody when their birthday is and say when their own birthday is in French.</li> </ul>	<ul style="list-style-type: none"> <li>• Describe the weather in France, in French using a weather map with symbols.</li> <li>• Recognise and recall from memory 21 items of clothing.</li> </ul>	<p>moi il y a... and chez moi in n'y a pas de/d'...</p> <ul style="list-style-type: none"> <li>• Use the connective/conjunction et to link two sentences together</li> <li>• Know 10 nouns and articles for common Olympic sports.</li> </ul>
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	<b>PE</b> <b>Invasion Games</b> <b>(Football Lacrosse Tag Rugby Handball)</b>	<b>Dance</b>	<b>Striking and Fielding</b> <b>(Rounders and Cricket)</b>	<b>Athletics</b>
	<b>OA</b>	<b>Gymnastics</b>	<b>Net Wall Games</b> <b>Tennis</b>	

**Retrieval Practise Sessions:**

At Handale, we understand that regular retrieval practice embeds learning in to the long term memory – and as such, we aim to regularly retrieve prior learning through fun, low stakes retrieval opportunities.

If a teacher assesses that a concept or word is not well embedded, they must ascertain how this will be improved?

- Embedded in to a curriculum lesson
- Taught there and then – as part of the retrieval session
- Embedded in to the next few sessions to gain repeated exposure of the concept to aid overlearning

Over the year, with regular retrieval practice sessions, as well as revisit opportunities built in to the curriculum, it is hoped that the vast majority of children will have the above knowledge firmly embedded in to their long term memory.