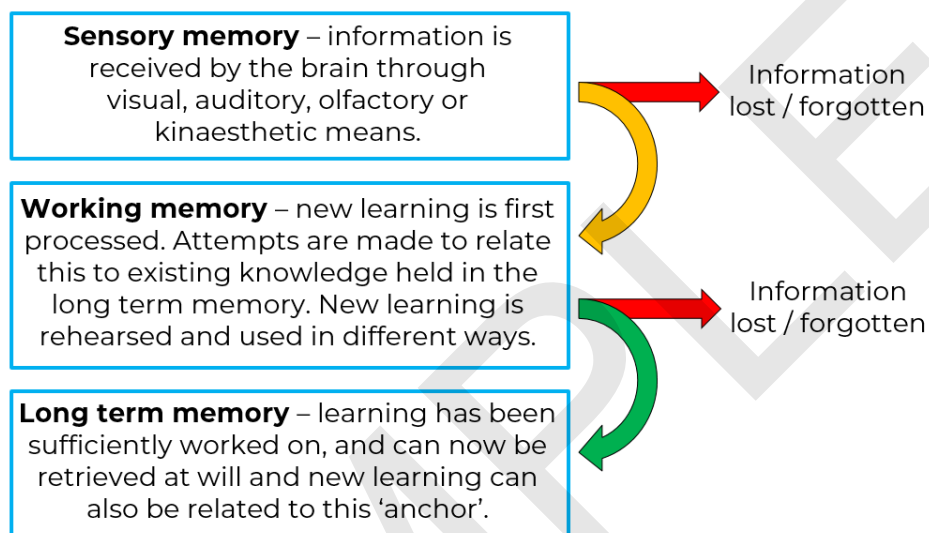


## What makes learning 'sticky'?

For teachers to understand what makes learning sticky, it is useful to understand how the brain and, more importantly, the memory works. The human body is constantly bombarded with information in many forms and it is our senses that receive this and send signals to the brain. The sensory memory decides whether the information should be passed to the working memory. Here, it must be processed sufficiently to pass into your long-term memory. Once in the long-term memory, it can be retrieved and applied in different ways, demonstrating that learning has taken place. However, cognitive load theory suggests that the working memory has very limited capacity and can easily be overwhelmed leading to the information being lost instead of learned.



Adapted from Atkinson, R.C. and Shiffrin, R.M (1968).

*Human memory: A proposed system and its control processes.*

Working memory can generally hold between five and nine items of information at any one time. This limit is determined by the age and experience of the learner and whether the separate items of information are connected. The average five-year-old can only remember two unrelated words or numbers. If individual elements can be grouped, we can remember more.

Information held in working memory is very fragile, it can disappear in the face of distraction or quickly fade away if not rehearsed. So how can we support children in holding more information in the working memory, and more importantly how can we support children in transferring the information from the working memory into the long-term memory?

### Curriculum Structure

The structure of the curriculum that a school creates for its pupils can be considered in three ways:

#### **1. The structure and organisation of the curriculum of the same subject across years.**

Learning in any given subject should be progressive across all year groups. It is vital that teachers are aware of the previous learning that children have acquired that is related to the learning expected in their year group. Subject leaders need to ask themselves:

*Is the progression of knowledge and skills progressive across year groups from EYFS through to Year 6?*

Teachers need to ask themselves:

*What do the children already know and understand?*

*How can the new learning be built on/linked to their existing knowledge and understanding?*

## **2. The structure and organisation of the curriculum of a single subject within just one year group.**

Curriculum leaders, subject leaders and teachers need to ask themselves:

*How well is the learning organised into a coherent progression starting from the knowledge and understanding that children have previously acquired and building up to end of year or end of key stage expectations, and preparing children for the next stage of their education?*

## **3. The structure and organisation of the curriculum of different subjects within just one year group.**

Learning in one subject is not restricted for use in only that subject. The incredibly important area of learning to live a healthy lifestyle has specific importance in science, design technology, PE and PSHE.

Curriculum leaders and teachers need to ask themselves:

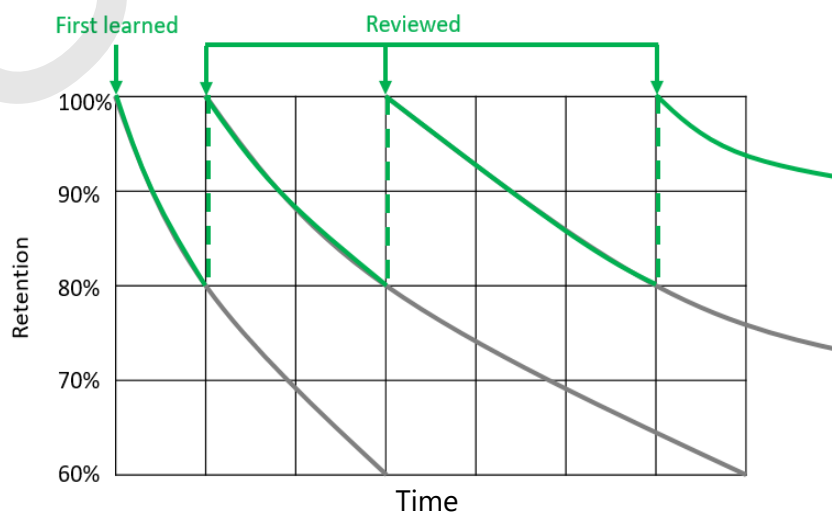
*How well are the links between subjects made and how well is the learning that spans across different subjects progressive across the year?*

*If measuring length using a ruler or metre rule is necessary for a scientific investigation in key stage 1, then this skill needs to have been taught in mathematics prior to its application in the science investigation.*

This leads to an understanding that learning in primary school is a complex web of ideas that interact and are often interdependent on each other. However, the order in which certain knowledge and skills are acquired needs to be considered carefully.

The key to success in structuring a curriculum is the strength of the connections within it: the connections made between existing understanding and new learning; the connections made between new learning and children's experiences; the connections made between the practice and the application of the new learning.

Within the structure of the curriculum, children need to be given quality opportunities to practice and apply their learning in meaningful ways. The Ebbinghaus Forgetting Curve illustrates how new learning over time can be lost, but also how spaced retrieval can help to embed the learning and commit it to the long-term memory.



## Sticky Learning in History

The history curriculum provides many opportunities to teach a wide variety of historical periods within local, British and world history. With limited curriculum time available, how do teachers ensure progression and understanding whilst combining overview and depth studies to help pupils understand both the long arc of development and the complexity of specific aspects of the content? This chapter will provide suggestions to help ensure coverage of the historical curriculum in a memorable and effective way.

### Simplicity / Finding the Core:

When teaching the history curriculum, we are faced with many choices. For example, it is not possible to teach over 1000 years of history during six afternoons covering *'The Romans'*. Without a clear focus, our lessons can become an episodic collection of disconnected, unmemorable facts. We can't possibly cover the Roman army, worship, architecture, technology, and the different Celtic tribes whilst examining social, cultural, political, historical, and environmental factors. Choices must be made but how do we 'find the core' and strip our history units down to some of their most significant aspects?

In his article, 'Ofsted and Primary History' ('Primary History' Issue 87, Spring 2021), Tim Jenner (Ofsted's Subject Lead for history) offers some helpful suggestions. Jenner praises schools who secure pupils' knowledge of important central concepts such as: empire, tax, and trade. Knowledge of these concepts, Jenner argues, helps pupils to unlock increasingly complex information about the past throughout their history education. This is most powerful when pupils engage with the discipline of history alongside deep knowledge of a topic, and through specific examples of sources and the work of historians.

So, rather than trying to cover too much breadth when investigating *The Romans*, teachers could provide an overview through, for example, a VAK (Visual, Audio and Kinaesthetic) timeline whilst focussing in on a depth study that is centred around a key concept. One focus area could be 'The Iceni Tribe' with its enigmatic, central figure - Boudicca. Pupils could examine the Iceni way of life including their settlements, religion, weapons, and jewellery whilst considering the ways the Roman invasions affected the life of these tribes and Boudicca's subsequent rebellion against Roman rule. This focus on 'the macro' and the 'micro', the overview, and the depth study, can lead to powerful, memorable sequences of learning.

*"As with every subject, there is a balance between the macro and the micro, but it is in history that this balance has immense power... It is the relationship between the grand narrative and the intimate or local story that has the power to draw pupils in."*

(The Curriculum: Gallimaufry to Coherence, 2018, by Mary Myatt)

Making connections between units/ topics within history can help pupils retrieve previous learning, embed the current learning, and commit it to the long-term memory. For example, when considering the concept of leadership, teachers could focus on monarchy in Ancient Egypt which can then be contrasted with democracy in Ancient Greece during a later unit. Making such connections will add coherence to the children's learning and re-activate

previous learning. When pupils make connections, their understanding increases. Good learners will frequently try to make sense out of new learning by seeing how it fits with their prior learning.

## Strategy 1: Novelty

**Novelty – the quality of being new, original, or unusual; unexpected or surprising; memorable**

“A high-quality history education should inspire pupils’ curiosity to know more about the past.” (National Curriculum in England, History programmes of study). Pupils will make good progress if they show passion and curiosity and thrive on controversy, mystery, and problems of evidence. They should be intrigued by the similarities and differences between different people’s experiences, times and places and other features of the past.

### How can ‘novelty’ attract and keep pupils’ attention?

Surprising children with something unexpected, unusual, or unique is a great way of grabbing their attention. Surprise makes us want to find an answer; it encourages us to ask questions and want to resolve them. Often, at the start of a unit, teachers ask pupils to tell them what they already know about a period of history. Curiosity, however, comes from the gap between what we know and what we want to know. A great way of starting a unit of work is to surprise children – to make them question everything they knew about a certain period of history. For example, children may have read books about ‘Vicious Vikings’ and they might consider Vikings to be heartless savages, brutal invaders and raiders. They may never have considered other aspects of Viking life, e.g. farming, craftsmanship.

*“Education is not filling a bucket but lighting a fire.”*

W. B. Yeats

### Strategies for novelty:

Strategies	Examples	Possible Key Learning Coverage
<p><b>Artefact sessions</b></p> <p>Historical knowledge is socially constructed and communicated. Artefact sessions provide ample opportunity for learning through interaction. Adults support and scaffold the children’s learning as they look carefully to gain information, develop curiosity and start to ask and answer questions about the past.</p> <p>The most ordinary objects can yield considerable historical</p>	<p><b>Viking Chess Piece</b></p> <p>An intriguing introduction to Vikings could be initiated through the examination of one of the Viking chess pieces discovered in 1831 on a beach, on the Isle of Lewis, in the Outer Hebrides.</p> <p>Without any prior information, pupils could look at a photograph of the chess piece considering its appearance, function, value and design.</p>	<p><b>Enquiry, Interpretation and Using Sources</b></p> <p><b>EYFS</b> Describe features of objects at different times and make comparisons. Talk about similarities and differences.</p> <p><b>KS1</b> Ask and answer questions about the past through observing, handling, and using a range of sources such as objects and pictures.</p> <p><b>LKS2</b> Recognise how sources of evidence are used to make historical</p>

<p>evidence. They also have the advantage of providing tactile experience which aids investigative learning immensely.</p> <p><b>Teacher intervention:</b></p> <ul style="list-style-type: none"> <li>• <b>Provoking</b> children’s interest, curiosity, and motivation.</li> <li>• <b>Facilitating</b> children’s investigations; helping them to find out and clarify what they think, feel or are able to do.</li> <li>• <b>Encouraging</b> children to test their ideas, feelings; to extend, develop or modify them.</li> <li>• <b>Reviewing:</b> Helping children to recognise the significance of what they have found out or what has been achieved.</li> <li>• <b>Application:</b> Helping children to relate what they have learned or achieved to their everyday lives or to a meaningful activity.</li> </ul>	<p>They could examine the artefact closely generating their own questions: What can we tell from the picture? How big is it? What is it made from? Who made it? How old is it? What was it used for? How do we know? What other questions about the piece do you have?</p> <p>Once the children have discovered that it is a Viking chess piece, they can start to consider what it tells us about the Viking world.</p> <p>Suddenly, Vikings become relatable craftsmen; they made toys and played games just like us. They become more human and less of a stereotype.</p> <p>Curiosity has sparked an interest that will carry the children through a series of lessons.</p>	<p>claims. Ask questions such as, ‘What might this tell us about...?’</p> <p><b>UKS2</b> Use sources as a basis for research to answer questions and to test hypotheses.</p> <p><b>UKS2</b> Evaluate sources and make inferences.</p>
<p><b>The Unexpected</b></p> <p>Consider unexpected, novel aspects within a topic that you can focus on to intrigue the children.</p> <p>Surprise the children with unusual facts that will challenge their misconceptions and grab their attention.</p> <p>The unexpected jolts us to attention because it violates our schema (schema is relevant background knowledge, prior knowledge, or just plain experience).</p>	<p><b>The role of Britain and Lancashire in the Transatlantic Slave Trade</b></p> <p>When considering the role of Britain and Lancashire in the Transatlantic Slave Trade, the children may be shocked to learn that Lancaster and Preston sent out ships to Africa to trade for slaves.</p> <p>The role of the British Royal Family in the slave trade may also be unexpected and provoke much discussion:</p> <ul style="list-style-type: none"> <li>• John Hawkins, an English merchant, was given money by Queen Elizabeth I to support his voyages. She rewarded his success at slave trading by making him a knight.</li> </ul>	<p><b>Enquiry, Interpretation and Using Sources</b></p> <p><b>EYFS</b> Talk about the lives of the people around them and their roles in society.</p> <p><b>KS1</b> Recognise some of the reasons why people in the past acted as they did. Ask questions, e.g., what was different...?’</p> <p><b>LKS2</b> Recognise why some events happened and what happened as a result. Ask questions such as, ‘Why did...?’ ‘What were the effects...?’</p> <p><b>UKS2</b> Regularly address and sometimes devise historically valid questions about change and continuity, cause and consequence, similarity and difference, and significance. Ask questions such as, ‘How did life change...?’ ‘Why do</p>

	<ul style="list-style-type: none"> <li>Charles II saw an opportunity to make money by trading in enslaved people from Africa.</li> </ul>	we remember...?' 'Why do people disagree...?'
--	--	---

Recognise how our knowledge of the past is constructed from a range of different sources. Evaluate sources and make inferences.

**Claim Support Question**

**What led you to think that?**

**Tell me more about . . .**

**Can you extend that idea a bit for us?**

**Did anyone have a different response?**

**Do you agree?**

A pupil's initial response to the artefact session. Using tentative language prompts, the teacher will now challenge the pupil to support their claims and consider further questions that they may want to ask.



## A letter from Captain Collins to the owner of Hope

To James Sawrey and Co

Since writing to you in the letter I sent with Captain Hughes I have been very unhealthy and have lost twenty slaves, all of which died of dysentery. Trade has been slow, partly because some of the main traders have been ill too, although it looks like they are getting better now. I expect to set sail sometime in July and I now have 170 slaves on board. I hope my salt will last so that I can buy more slaves but I will not have much left to trade for ivory. I have about a ton of ivory on board but I have not yet paid for most of it. The more I can pay in salt, the cheaper it will be for you. Let me assure you, I will be careful and make sure this voyage is successful.

Yours

*Tobias Collins*

Since writing I have buried one white man called call Morris Allen. Most of the crew are healthy, apart from the carpenter who has been ill for the last two months.

A transcript of a letter to the Lancaster slave-trader of the 1780s, James Sawrey. The original letter is currently housed within the Lancashire Archives.

### Strategy 2: Stories / Emotion

**Story: a description, either true or imagined, of a connected series of events.**

**Emotion: strong feelings deriving from circumstances, moods, or relationships.**

*"If I look at the mass, I will never act. If I look at the one, I will."*

Mother Teresa

People care about people, not statistics. Whilst it is important to give pupils an overview of a historical period, it will often be the intimate story about an individual that draws the reader in creating empathy for specific individuals. Principles such as equality and human rights matter to us and they seem to matter even more when we read a story about a wronged individual, for example, when a little girl is wrongly accused of being a witch in 17<sup>th</sup> Century England or when a young boy is separated from his family and enslaved.

Stories have a unique power to engage and inspire. They are an important part of a young child's way of making sense of their world. How might we use stories in a slightly more focussed way to ensure the historical element of the area of learning is strengthened and developed? A great story anchors our learning, makes connections to what we know and

taps our emotions whilst weaving in repetition and a bit of novelty. Stories contain wisdom, are effective teaching tools and highlight unexpected, resourceful ways of solving problems. They put knowledge into a framework that is more lifelike. They provide stimulation and inspiration, make people care and make people act. Imagine how powerful it would be for children to visit the Hancock graves in Eyam after first hearing Elizabeth Hancock's story and learning how she buried her husband and six of her children.

*"Dreading to touch the putrid bodies, she, as she had done by the other, tied a towel to their feet, and dragged them on the ground in succession to their graves. Hapless woman, surely no greater woe, ever crushed a female heart."*

(The History and Antiquities of Eyam by William Wood, 1842)

### Strategies for stories and emotions:

Strategies	Examples	Possible key learning coverage
<p><b>Using narrative, story, and rich historical contexts.</b></p> <p>Select a relatable character from the focus historical period. Immerse the children in narrative accounts relating to the character. Consider generating a narrative story/ extract about the character.</p>	<p><b>Significant individuals and fictional historical characters.</b></p> <p>The story could focus on a significant individual with a story to tell, e.g., Boudicca, Lady Jane Grey or a fictional character typical of the period, e.g., an Egyptian slave or an evacuated child.</p> <p>Innovating historical fiction novels and picture books can also help form the basis of children's historical narrative stories, e.g., Dogger by Shirley Hughes (Family History), Goodnight Mr Tom by Michelle Majorian (WWII childhood) or Winter of the Wolves by Tony Bradman (Anglo-Saxons).</p>	<p><b>Communicating Findings</b></p> <p><b>EYFS</b> Know some similarities and differences between things in the past and now, drawing on their experiences and what has been read in class.</p> <p><b>KS1</b> Retell simple stories about people and events from the past.</p> <p><b>KS1</b> Demonstrate simple historical concepts and events through speaking, role-play, and picture stories.</p> <p><b>LKS2</b> Talk and write about historical events and changes by selecting and organising historical information and dates.</p>
<p><b>Teacher in Role</b></p> <p>Becoming a storyteller or performer. Take the leap from reading to telling/ performing.</p> <p>Practice telling a story; visualise scenes as a mental prompt etc.</p> <p>Use eye-contact, gesture, movement, props, sound effects, improvisation.</p>	<p><b>Historical perspectives</b></p> <p>Focus on a particular historical character, tell a story from his or her perspective, e.g. a fairy-tale creature, a Celtic child, a WWII soldier.</p> <p>In EYFS, for example, a teacher could be in role as the troll from The Three Billy Goats Gruff. Following the storytelling activity, children might suggest that the troll might be lonely and hungry. Is that why he is fierce? Pretend play</p>	<p><b>UKS2</b> Use appropriate vocabulary when discussing and describing historical events and concepts, e.g. bias, reliability, and society.</p>



<p>Use simple props/costume.</p> <p>Include moral issues or dilemmas.</p>	<p>is being used to help the children think beyond the 'here and now' and to understand another perspective.</p>	
<p><b>Hot Seating</b></p> <p>Generate questions in groups and discussion.</p> <p>Tell the same story from a different character's perspective.</p> <p>Develop children's critical thinking, possibility thinking and questioning.</p> <p>Question the character's motives/ see multiple perspectives.</p>	<p>The teacher could answer questions in role as historical figures, e.g., as Edith Cavell explaining why she risked her life to save the lives of soldiers from both sides in German-occupied Belgium during the First World War.</p> <p>Once the teacher has modelled hot seating, the children could take turns asking and answering questions in role.</p>	
<p><b>Artwork and Artefacts</b></p> <p>Exploring history through art and artefacts is an important and exciting way to engage students with any topic. It is also key to understanding how our knowledge of the past is linked to original sources.</p> <p>Using objects enables children to develop enquiry and thinking skills, learning how to devise and answer questions, which allows for more active learning.</p> <p>Using open questions to generate enquiry-based, child-led learning is an excellent way to develop an interest in a subject, especially at the start of a new topic.</p>	<p>Examine artwork and artefacts e.g. Bird Scaring by George Clausen (1852–1944), The Shang Dynasty Bronzes and William Mompesson's letters to his children as inspiration for narrative stories about historical figures.</p> <p>The Shang Dynasty of ancient China is a perfect topic to explore history alongside art and design. The only written information that remains from the Shang period is from the inscriptions found on oracle bones or artworks.</p> <p>Most of what we know about the Shang has been determined from the art they created. By exploring the artworks, we can gain a much deeper understanding of the Shang, as well as a greater appreciation of art and craftsmanship.</p>	<p><b>Enquiry, Interpretation and Using Sources</b></p> <p><b>EYFS (Development Matters)</b> Introduce children to the work of artists from across times and cultures. Visit galleries and museums to generate inspiration and conversation about art and artists.</p> <p><b>KS1</b> Identify some of the basic ways the past can be represented, e.g. through pictures.</p> <p><b>LKS2</b> Describe some of the different ways the past can be represented e.g., through artists' pictures and museum displays.</p> <p><b>UKS2</b> Recognise how our knowledge of the past is constructed from a range of different sources.</p>



Teachers, visitors, and pupils engaging in roleplay, storytelling, drama, and reconstructions. Children exploring history through art and artefacts.

