Teaching and Learning Framework

‘Ensuring every teacher is supported in delivering high-quality teaching is essential to achieving the best outcomes for all pupils, particularly the most disadvantaged among them’ (EEF)

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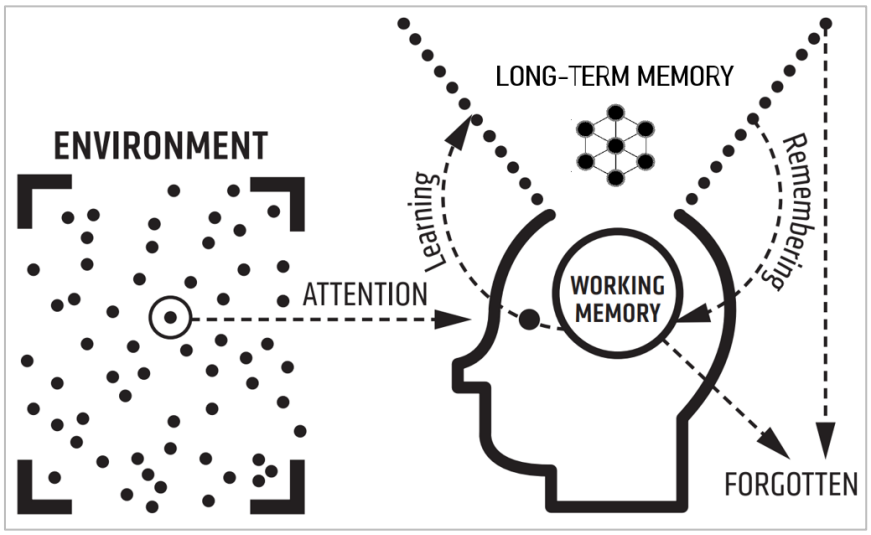
1) Cognitive Load Theory



This is the bottom line; this is how children learn. At Northgate, this guides choices about planning and teaching and informs the design of our learning environments.

The model is revisited regularly to reinforce the following key points:

a) Children will only think about what they attend to

b) The capacity of the working memory is limited

c) Only when knowledge is committed to the long-term memory has that knowledge been learned

d) Knowledge can be forgotten from both the working and long-term memory

e) Unless we give pupils opportunities to retrieve and remember knowledge from the long-term memory, it will be forgotten

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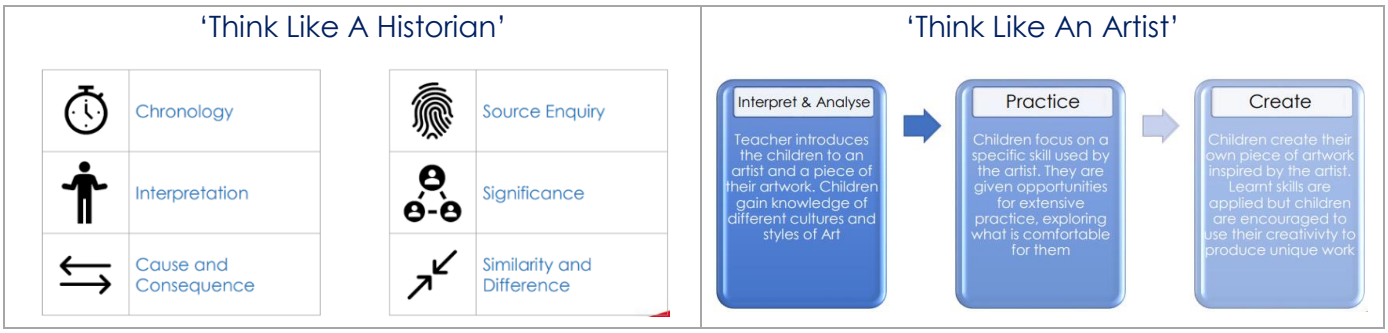
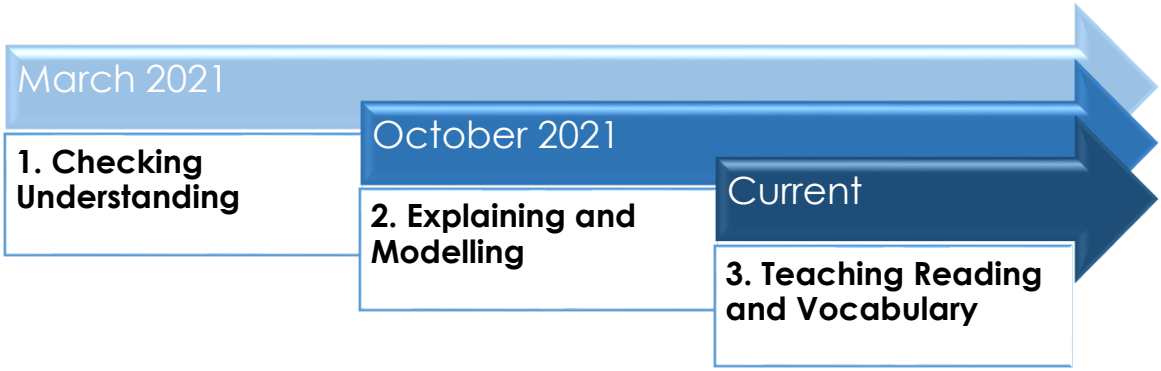
2) Subject leaders are empowered to deliver training, demonstrating how each subject can be taught in a way that is faithful to the subject discipline. Teachers are supported to use subject-specific pedagogy effectively to enable children to achieve the best outcomes across the curriculum. Examples below enable children at Northgate to know what it means 'to be a historian' or 'to be an artist' (see subject pages for further examples)



3) Teaching **WALKTHRUs**

WALKTHRUs are used as a framework for staff to develop their general teaching practice. It provides staff with practical, bite-sized strategies and a shared language for us all to discuss effective teaching and learning. Senior leaders monitor provision across school and design a 'cluster' of strategies that meet a specific area of development. Teachers choose one of these strategies as their Professional Development Goal (PDG) that they will practice and embed into everyday teaching. Below are the clusters of strategies that have been developed so far.



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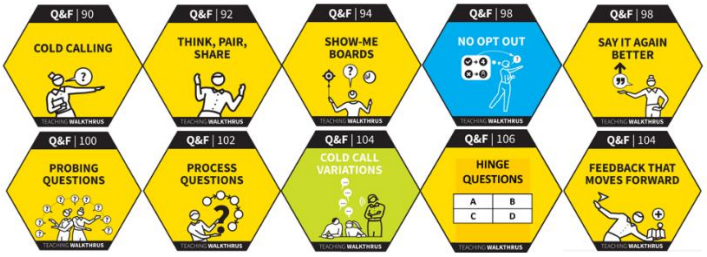
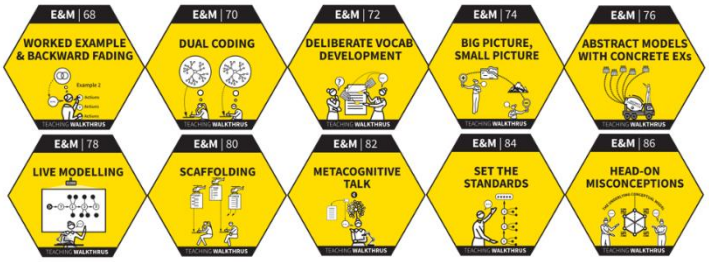
Cluster 1: Checking Understanding

The Why	The Strategies
• Pupils do not learn what we teach them" (D. William) • "The most important single factor influencing learning is what the learner already knows. Ascertain this and teach him [or her] accordingly" (Ausubel)	

Cluster 2: Explaining and Modelling

The Why	The Strategies
• "[Promoting metacognition] can add up to seven months of additional learning, and **improve the outcomes of disadvantaged learners**" (EEF) • Approaches such as explicit instruction, scaffolding and flexible grouping are all key components of high-quality teaching (EEF) • "Extraneous load is reduced by scaffolding of worked examples at the beginning of skill acquisition" (Paas Et Al)	

Cluster 3: Teaching Reading

The Why	The Strategies
• "Reading is the bedrock of learning" (T. Sherrington) • 25% of children left primary school last year unable to read properly. This increases to 40% for children from disadvantaged backgrounds. A love of reading can change their lives (National Literacy Trust)	

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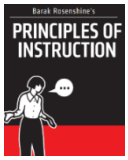
4) My Turn, Our Turn, Your Turn

When modelling new learning, teachers and teaching assistants follow the structure 'My Turn, Our Turn, Your Turn'. Children see new learning modelled effectively by an adult and have a chance to practice under close supervision before working independently. This form of **'Cognitive Apprenticeship'** allows children to build understanding gradually, developing confidence and fluency.

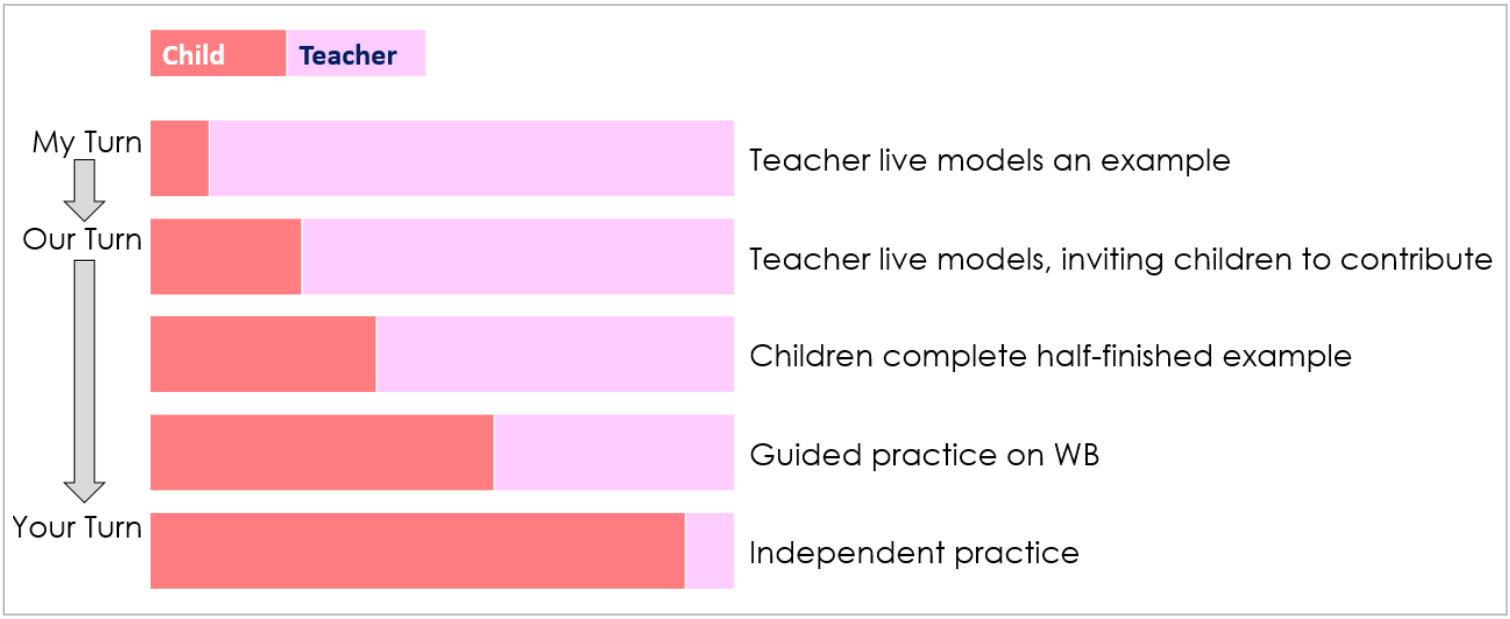


The model has been implemented to include key strategies identified in 'Barak Rosenshine's Principles of Instruction' (Sherrington, T)

My Turn		Our Turn		Your Turn
Present in small steps	Provide models	Guided Student Practice	Establish high rate of success	Independent practice
				

The purpose of 'My Turn, Our Turn, Your Turn' is to allow children to move gradually from dependence to independence with confidence and understanding.

Below is a model adapted from the EEF framework, giving an example of how this gradual progression might look in a lesson.



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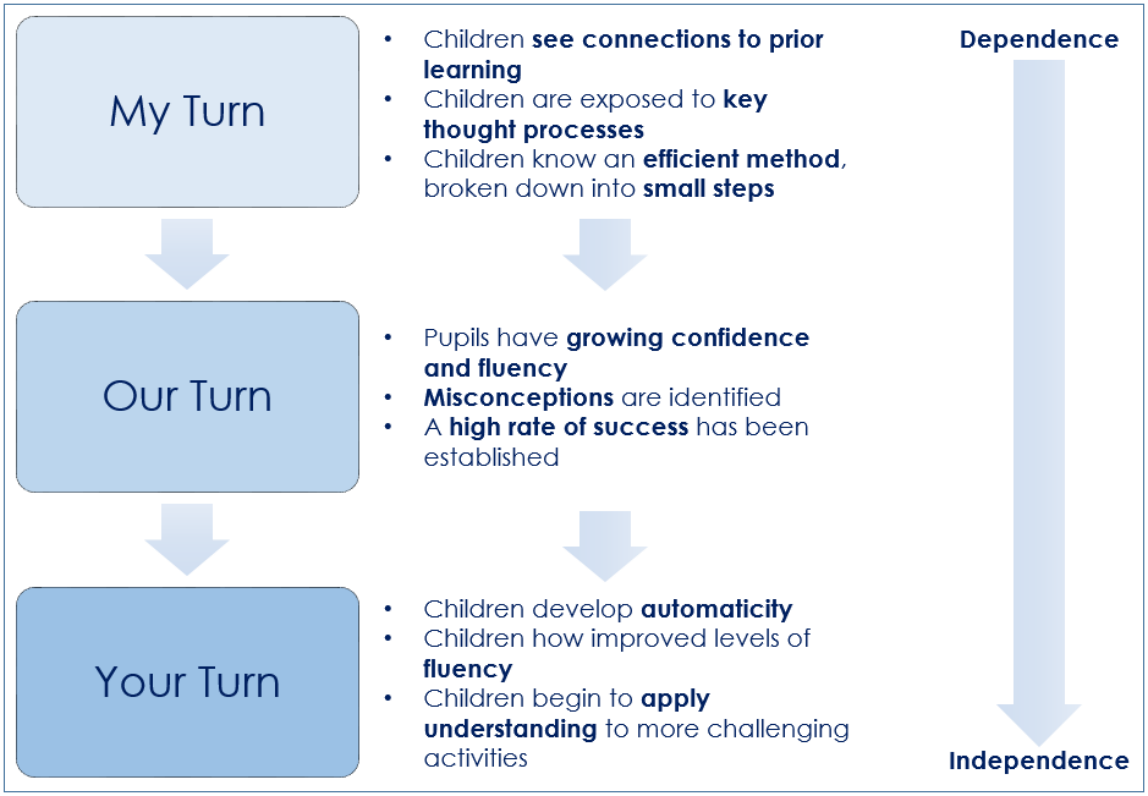
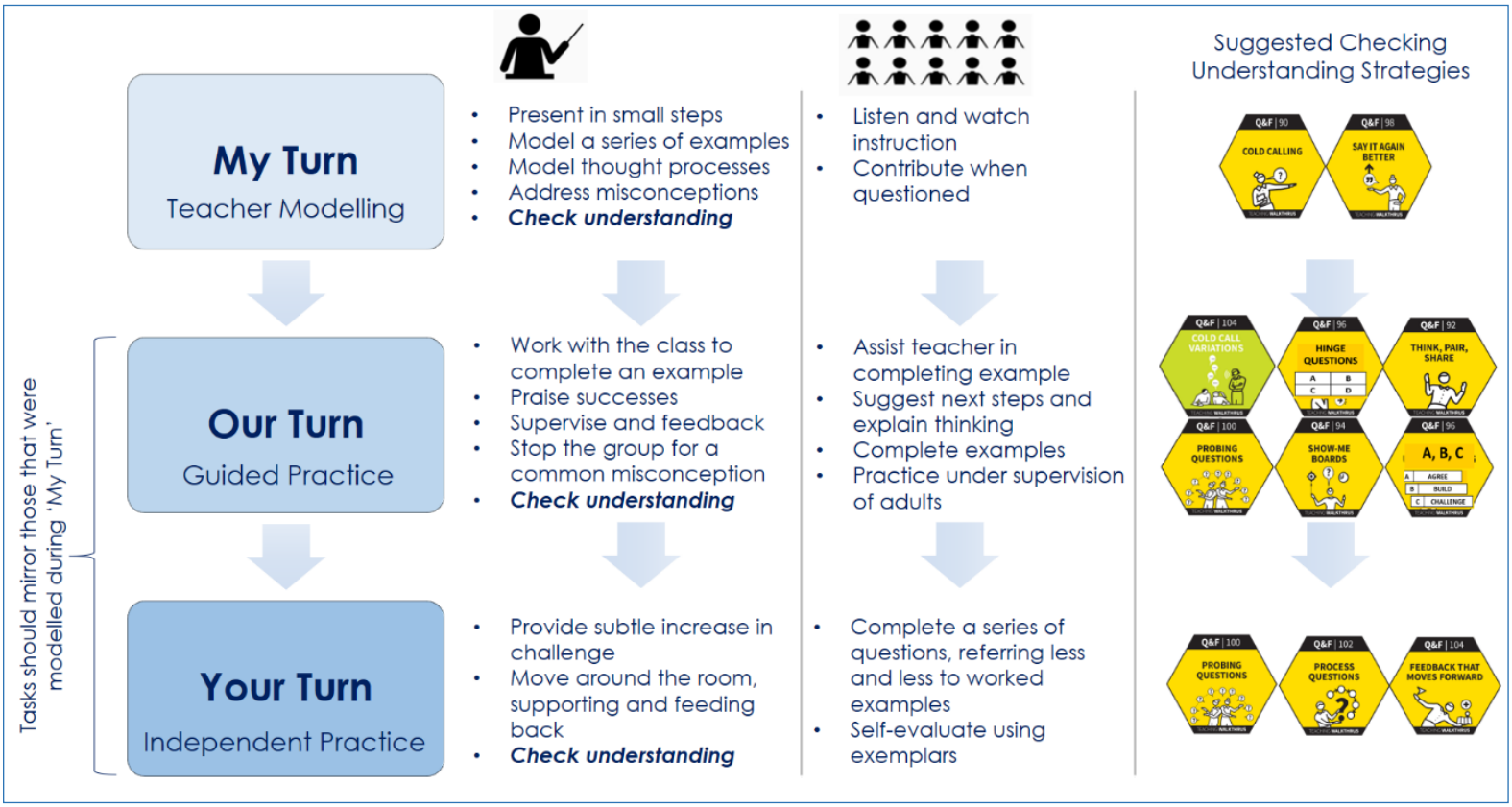
The purpose of each stage in My Turn, Our Turn, Your Turn is demonstrated here:



At each stage, there are clearly-defined expectations of both the adults and the children.



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Our Turn (Guided Practice)

Below are just some activities that may be used in effective guided practice, often with children working in partners or on 'show me boards.' Not every activity is used in every lesson. Adults will decide which would be most appropriate based on the content and complexity of the new learning.

Teacher and children complete an example together	Children follow steps to complete their own examples
Children finish a partially-completed example	Explore and explain a non-example as a group

Chunking Learning

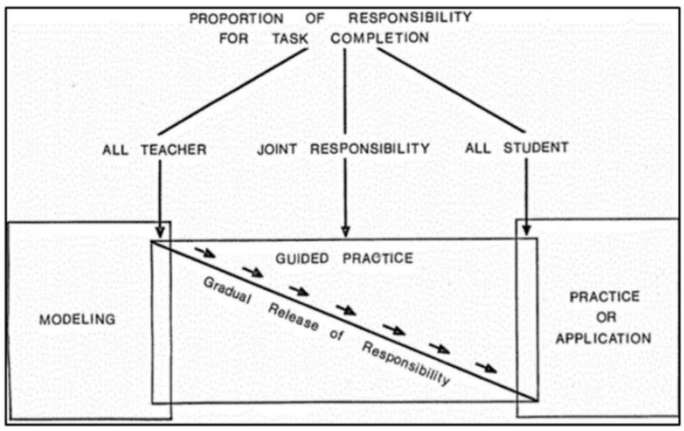
During certain lessons, where new learning may be particularly complex or involve a number of steps, it is common for children to experience '**Cognitive Overload**' (where children are holding too much new information in their limited working memories). In these lessons, teachers may scaffold by splitting learning into manageable 'chunks'. The 'My Turn, Our Turn, Your Turn' structure can then be adapted to reflect this. Two examples of this are below.

Task 1	Task 2
My Turn	My Turn
Our Turn	Our Turn
Your Turn	Your Turn

Step 1	Step 2
My Turn	My Turn
Our Turn	Our Turn
	Your Turn

The model below emphasises the importance of the 'Our Turn' phase, labelled here as guided practice. It acts as a bridge between teacher modelling and independent activities and again refers to a **'gradual release of teacher responsibility'.**

A variation of My Turn, Our Turn, Your Turn should be used across the school in all subjects.



(Pearson and Gallagher, 1983)

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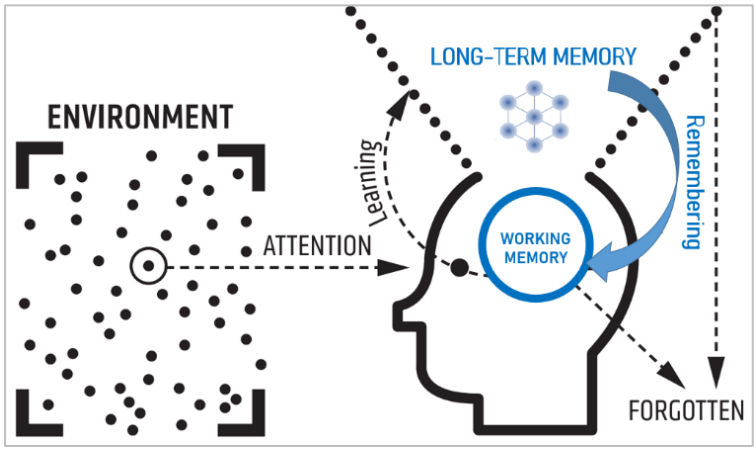
5) Retrieval Practice: The act of recalling learned information from memory (with no or little support)

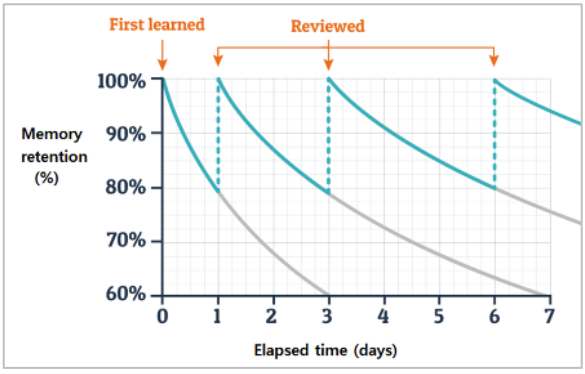
- "Using your memory, shapes your memory"
- "Learning is a lasting change in long-term memory, if nothing has remembered, nothing has been learned" P. Kirschner



Unless we give children opportunities to remember prior knowledge, some of it will be forgotten.

Retrieval practice 'interrupts the forgetting'.

The rate at which students are said to forget something is demonstrated in Ebbinghause's 'Forgetting Curve'.



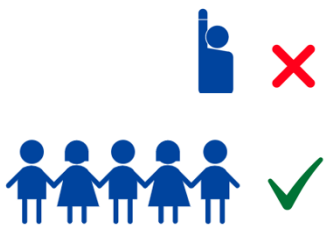
To combat this, knowledge should be retrieved multiple times like in this example.

Introduction of new knowledge	→	The Next Lesson Retrieval 1	→	The Next Week Retrieval 2	→	The Next Half-Term Retrieval 3

The active ingredients of effective retrieval practice

Involve Everyone	Feedback	Core Knowledge
Workload-efficient	Time-efficient	Spaced
Low-stakes	Challenging	Vary the diet

Adapted from 'teacherhead' (T. Sherrington)

Involve Everyone	
	• The goal is to check that all students can remember the key knowledge • If we accept an answer from an individual, we are robbing the rest of an opportunity to engage in meaningful retrieval

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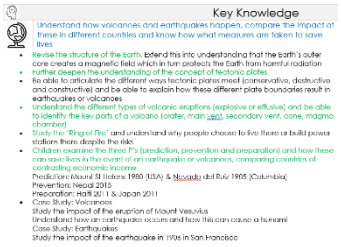
Feedback

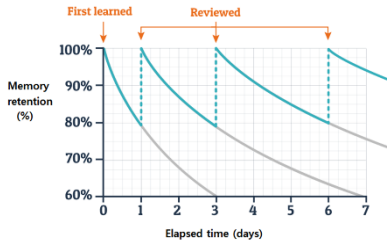
- Students need to know whether they got answers right or wrong so that they do not cement misconceptions!
- Make checking answers easy and efficient
- "The best person to mark a test, is the person who took it" (D. William)

Core Knowledge



- Core knowledge is identified across the curriculum
- Retrieval practice should be focussed on the core knowledge we know students will need for subsequent learning

Challenging and Spaced

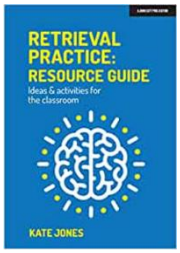


- Forgetting is helpful! If we allow some forgetting to occur, it adds challenge. Retrieval practice needs to be challenging to be effective
- We need to retrieve knowledge multiple times
- Remove most prompts, cue cards etc.

Time and Workload Efficient

- 8 – 10 minutes should be spent on retrieval practice, including feedback
- Teachers should use knowledge organisers and ready-made templates to plan retrieval starters to efficiently manage workload

Vary the diet



- Give children a rich diet of retrieval activities, all of which should be snappy **low-stakes**
- Refer to the resource guide by Kate Jones for activity ideas and templates
- Be mindful of *procedural memory* – too many different activities and students may concentrate more on the rules of the activity rather than the core knowledge being retrieved

Knowledge Organisers for retrieval

	Paired, low-stakes quizzing
	Elaborate e.g. re-order this knowledge starting with the most significant
	Children complete KO with missing information

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Examples of retrieval practice activities

Thinking and Linking Tables

Box 1	Box 2	Connection

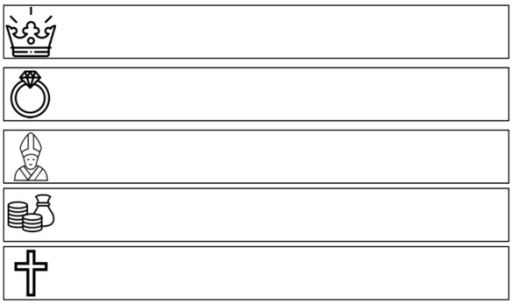
	1	2	3	4
1	Scrooge	Family	Marley's Chains	Forgiveness
2	Poverty	Gratitude	Fred	Cold
3	Repentance	Christmas	Bob Cratchit	Isolation
4	Generosity	Ghost	Past	Reform

Labelling diagrams

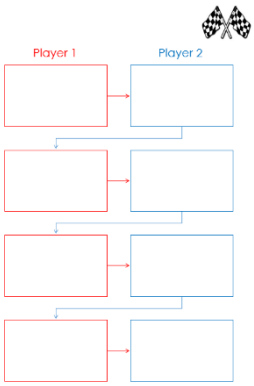
Cops and Robbers

Your ideas & own knowledge....	Ideas & information you have "stolen" from your peers...

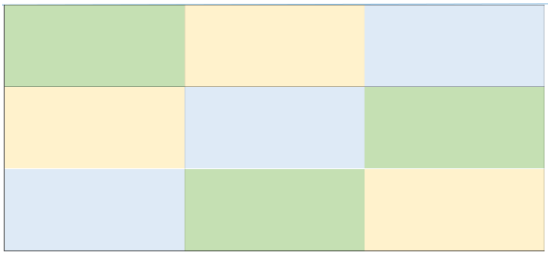
Picture Prompts



Fact Recall Relay Race



Retrieval grids



1 point	2 points	3 points

Multiple choice quizzing

Use competitive alternatives to the correct answer to provide desirable difficulty and deeper thinking. All alternatives should be related to the concept being retrieved or provoke likely misconceptions.