

Parish Church of England Primary School

St James Church of England Primary School



Teaching and Learning Toolkit


Revised September 2025

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Our Teaching and Learning Toolkit is used in conjunction with the ‘LDST Teaching and Learning Framework, 2025’


This framework is more than a set of expectations; it is a practical, developmental tool designed to foster reflective practice, support coaching conversations, and guide professional development. It provides a common language for teaching and learning, enabling consistency while allowing for contextual flexibility across different phases and settings.



Using the Framework as a Practical Tool



The framework is designed to be used dynamically in everyday professional practice. It supports self-evaluation, coaching, and teacher development in the following ways:




1. Self-Evaluation

Teachers can use the framework to reflect on their own practice in a structured and research-informed way. It encourages:

- Honest, strengths-based reflection.
- Identification of specific areas for growth.
- Goal-setting aligned with trust-wide expectations and evidence-based strategies.

This process can be integrated into appraisal, professional learning journals, or informal peer review.




2. Coaching Conversations

The framework provides a shared reference point for coaching and mentoring, enabling:

- Focused, developmental dialogue between colleagues.
- Consistent language and expectations across schools.
- Constructive feedback grounded in research and professional standards.

It supports both formal coaching cycles and informal peer-to-peer learning.



3. Teacher Development

The framework informs the design and delivery of professional development at all levels. It can be used to:

- Shape CPD programmes that address specific elements of effective teaching.
- Guide lesson planning and curriculum design.
- Support induction, ECT development, and career progression.

By aligning professional learning with the framework, schools can ensure that development is coherent, purposeful, and rooted in what works.

Introduction to Teaching and Learning:

At both Parish Church of England Primary School and St James Church of England Primary School, we ensure that all pupils reach their full potential and gain the knowledge and skills necessary to prepare them for the next stage of their education. This policy provides a toolkit of evidence-informed strategies and techniques that strive to ensure high-quality teaching and learning takes place in all classroom settings.

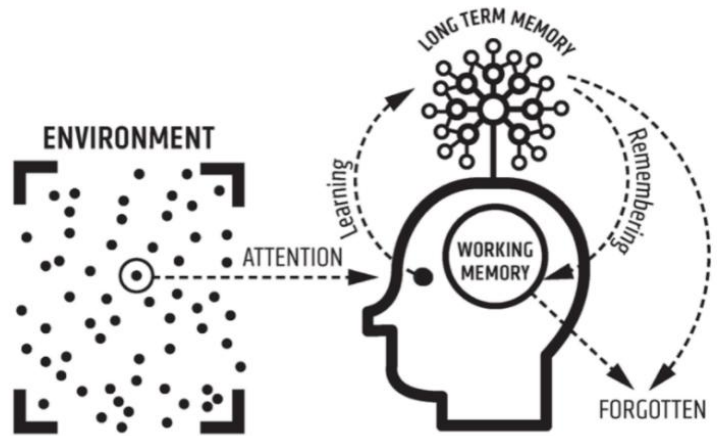
An underlying assumption is that across the partnership, before an educational professional can implement any research, the complexities of our individual school community (referred to as 'social capital' incorporating the innate factors of functioning social groups (Webb, 2008)), which are personal to our school and its local community) have been considered. This ensures that our staff are not just deploying 'what works' (Biesta, 2010) solely due to contextualised evidence-based results; instead adopting an 'evidence informed approach' (Brown and Zhang, 2016), whereby staff can utilise appropriate evidence in conjunction with practitioner autonomy to deploy the most effective teaching and learning strategies.

Described by Lekha Sharma (2020) as an 'art not a science', **teaching** can be defined as engagement with learners to enable their understanding and application of knowledge, concepts and processes. It includes the design, content selection, delivery and assessment of carefully sequenced material. Comparatively, **learning** can be identified as the activity or process of gaining this knowledge through appropriate study, practice or experience.

Before effective 'teaching and learning' can indeed take place, it is vital to note that careful consideration has been placed upon successful curriculum design, defined as how 'knowledge can be structured as a narrative over time.' Each individual subject's curriculum is planned and sequenced so that new knowledge and skills build on what has been taught previously and sequentially links to future learning. Subject leaders have ensured that the subject curriculum contains content which has been identified as most useful and that this content is taught in a logical progression.




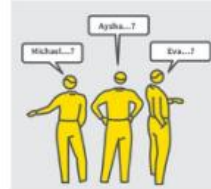

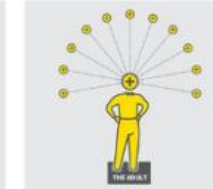
With the end point of our curriculum, how all of our pupils are able to "know more and be able to do more" (Ofsted, 2019), our evolving teaching and learning toolkit provides an evidence-informed approach to ensure that this pre-determined knowledge becomes sticky and is effectively retained over time for all learners.



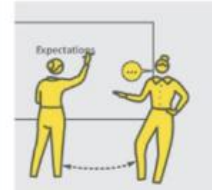
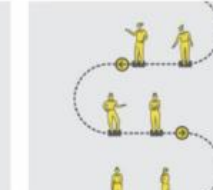

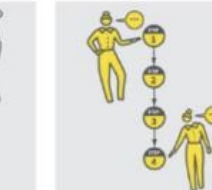
With the curriculum coherently structured, the teaching and learning process has been concisely illustrated by Cavigoli (2020). All staff are clear in their role to teach in a precise way which makes it possible for all pupils to achieve their full potential. Across our partnership, our 'Riveting Routines' (shown below) are the clear expectations to ensure that the atmosphere for learning is consistent for all learners and conducive to purposeful learning in all classrooms. This falls alongside the need to establish 'Positive Relationships' and 'Establishing Expectations at all levels' – two of our core WalkThrus which are stated below.



The Science of Working Memory (Cavigoli, 2020).

Once attention is secure (with supporting information provided in our 'Positive Relationships and Behaviour' and 'Learning Environment' policies), successful learning can take place, occurring when knowledge is well rehearsed and coherently linked to previously taught knowledge to develop a clear schema and be retained within the child's long-term memory. Our teachers know that they must ensure students efficiently acquire, rehearse, and connect background knowledge by providing effective instructional support to ensure the knowledge is remembered and not forgotten. Hence, our teaching and learning toolkit has been designed to support teachers to make decisions about how to improve the pupil's learning process and ensure that all children are successful in their learning.

Relationship Strategies:	
Strategy: Positive Relationships [CORE 10]	
Purpose: To create an environment in which all students feel they belong and feel safe.	
<p>Description:</p> <p>There are multiple reasons for teachers to establish positive relationships with students. Most importantly, relationships support the needs and rights of everyone in a classroom to feel safe, respected and valued; to feel they belong. Positive relationships create conditions where students and teachers can focus on learning, free from distractions or emotional threats. Finally, positive relationships are key in communicating trustable feedback that students will act upon. This is supported by the WalkThrus 1 'Behaviour and Relationships' chapter.</p>	 <p>Core WalkThrus Link: Pages 36-37.</p> <p>Supporting Research: The Parish/St James Way. Positive Relationships and Behaviour Policy.</p>
 <p>ESTABLISH NORMS AROUND CLEAR ROLES AND BOUNDARIES</p>  <p>COMMUNICATE KINDNESS</p>  <p>LEARN NAMES AND USE THEM</p>  <p>COMBINE ASSERTIVENESS WITH WARMTH</p>  <p>ALWAYS BE THE ADULT</p>	

Challenge Strategies:	
Strategy: Establish your Expectations [CORE 10]	
Purpose: To ensure high expectations, where everyone knows the routine and the boundaries.	
<p>Description:</p> <p>If you establish what you will not tolerate these things and will take actions to address them, students learn to function within those higher expectations. What ever you establish and sustain becomes the norm. Another version of this is the idea that 'what you permit, you promote.'</p>	 <p>Core WalkThrus Link: Pages 38-39.</p> <p>Supporting Research:</p>
 <p>DECIDE YOUR EXPECTATIONS</p>  <p>COMMUNICATE YOUR EXPECTATIONS</p>  <p>REINFORCE YOUR EXPECTATIONS</p>  <p>REDIRECT, CORRECT OR CHALLENGE</p>  <p>SUSTAIN YOUR EXPECTATIONS</p>	

Riveting Routines



Key Principles



- 1 Have a routine for everyday expectations: entrance, exits, transitions between tasks, discussion times.
- 2 Communicate expectations and insist they are followed
- 3 Ensure instructions are precise and concise
- 4 Keep a respectful, positive tone
- 5 Teach routines like a curriculum: repeat as necessary

Threshold

Stand at the door, be welcoming and kind. You could position yourself to be able to see in the classroom while greeting students as they enter.

Have a consistent routine for the DO NOW to optimise cognitive load.

Positive Framing

Positivity allows us to provide crucial feedback while maintaining a positive culture where our students are motivated.

1. Frame reminders positively
2. Allow anonymity
3. Narrate the positive
4. Frame a direction as challenge

Signal for Attention

Using a consistent signal for attention helps students manage cognitive load and reinforces positive behaviours.

You could use the following signals of attention:

- Teacher hand up= everyone listening
- 3...2...1 Eyes on me
- 3...2...1 STAR

Means of Participation

Means of Participation (MoP) is when a teacher makes it clear how they expect students to participate and then insists on this. Minimises cognitive load and reinforces high expectations.

MOP might include:

- Think-Pair-Share
- Show Me Boards
- Turn and Talk

Micro script: "When I say go, everyone has 3 minutes in silence to note your answer. Ready? Go!"

Thinking Time

Ask students a question and give them time to think about the answer before responding. Give more time according to the needs of students.

Categorisation

Ask students to collaborate to categorise ideas, concepts, and words.

Micro-script:

- Which makes most sense...?
- Which is the best...?
- What is your opinion...?

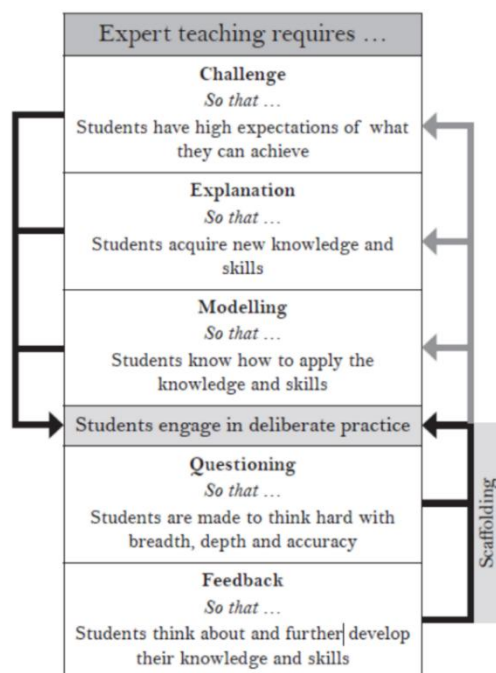
Targeted Questioning

Pre-plan your questions in advance thinking carefully about the different needs of students.

Use this to ensure all students participate, and, where appropriate, provide prompts or reminders to reduce social anxiety.

Our Pedagogical Principles - The Theory:

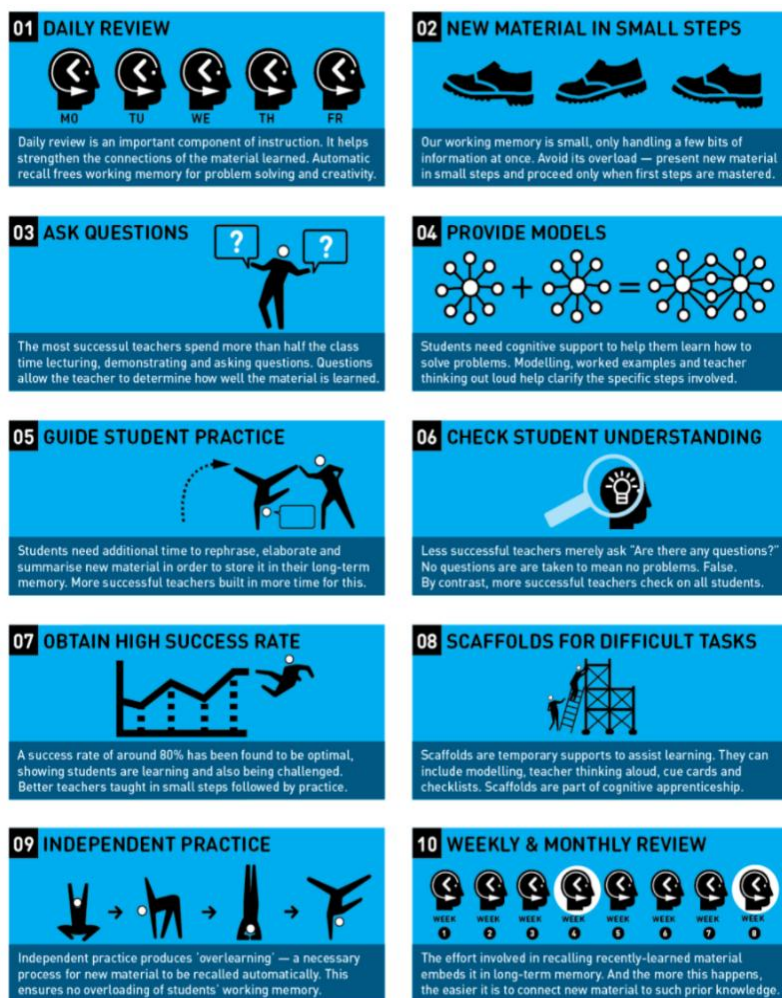
The content of our 'Teaching and Learning Toolkit' is underpinned by the seminal work of Barack Rosenshine (2010) and his ten principles of instruction. Defined by Tom Sherrington as the core factors that create effective teaching and learning, Rosenshine's research provides a triangulation between cognitive science, real-life classroom practice and practical cognitive supports. The research has made a significant contribution to knowledge of the effectiveness of certain methods of 'instruction', which is typically defined as 'the purposeful direction of the learning process'.



Allison and Tharby's (2015) 'Principles of Effective Teaching and Learning'

Rosenshine's Principles of Instruction (2010).

Rosenshine's principles are also synonymous with Allison and Tharby's (2015) 'Principles of Effective Teaching and Learning', who also provide an illustrative cycle to succinctly summarise the teaching and learning process. By examining the evidence behind what makes great teaching, Allison and Tharby explore how to implement this in the classroom to make a difference to learning. They break successful teaching and learning down into six core principles (challenge, explanation, modelling, practice, feedback and questioning) and show how these can develop teaching and learning not only in individual classrooms but across a whole school too; thus, combining robust evidence from a range of fields with the practical wisdom of experienced, effective classroom teachers.



Together, these two well established bodies of work create our six core 'Pedagogical Principles': each principle being centrally driven by Rosenshine's Principles of Instruction.

- 1.) Challenge (Obtain High Success Rate and Provide Scaffolds for Difficult Tasks).
- 2.) Explanation (Present New Materials in Small Steps).
- 3.) Modelling (Provide Models and Scaffolds for Difficult Tasks).
- 4.) Practice (Guide Student Practise and Independent Practise).
- 5.) Questioning (Ask questions and check student understanding).
- 6.) Feedback (Daily Review and Weekly and Monthly Review).

Delivering Our Pedagogical Principles:

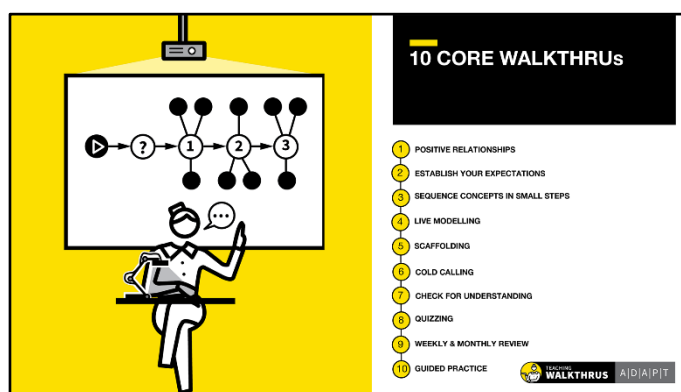
In order to successfully support our teaching staff in delivering our six pedagogical principles, different sources of evidence-based research have been incorporated into our Teaching and Learning Toolkit, with revisions made on a regular basis to reflect the needs of our school communities and wider updates to research.

1.) Core Strategies - Teaching WalkThrus:



'Teaching WalkThrus' (Sherrington and Caviglioli, 2020) is the central resource for our teachers to support their professional development. Each individual 'Teaching WalkThru' (incrementally incorporated from books one, two and three as appropriate and utilising bespoke online resources) is a clear five-step guide to a concept or teaching strategy that has been informed by educational research. By making this expert pedagogy clear and concise, our teachers are able to develop their teaching and pupil's learning as part of their professional development.

In designing the content for the Teaching WalkThru, the professional development focusses upon strategies that commonly offer solutions to tackling students' learning problems. This is a purposeful approach to supporting both teaching and learning as each WalkThru is generic and context free. Therefore, each WalkThru is not a rigid checklist, instead a reference point for deliberate reflection. With this underlying professional autonomy, teachers are expected to ADAPT (Attempt, Develop, Adapt, Practise, Test) the WalkThrus so that they can be successfully utilised within their classroom. Our expectation is that our 'Core 10 WalkThrus' are commonplace in all classrooms with teachers then able to refine their own practice by defining their own needs for their learners. This is supported through extensive informal and formal coaching cycles which take place across the year.



With WalkThrus providing the core strategies for all classroom practitioners, these are then enhanced by providing clear links to further supplementary evidence-based supporting research that is also easy to ADAPT (Attempt, Develop, Adapt, Practise, Test). This is vital to provide staff with additional up-to-date information and theory that they believe is pertinent to their individual classroom in addition to reflecting the ever-evolving nature of educational research.

Further pedagogical links to some Walkthrus are made to 'Opening Worlds' (our History and Geography Scheme of Work). As opposed to strategies in their own right (with the exception of Storytelling), each of the below ten teaching techniques to deepen staff understanding and elicit improved pupil responses. For example, when 'Cold Calling' further guidance is provided so that teachers 'Don't ask 1, ask 5' and aim to 'Secure Fluency.'



<p>Pre-teach key vocabulary</p> A simple line drawing of a lightbulb.	<p>Storytelling</p> A simple line drawing of an open book with stars above it.	<p>High-quality teacher talk</p> A simple line drawing of a human ear.	<p>Choral Response</p> Two overlapping speech bubbles. <p>(MTYT/TTYP)</p>	<p>Questioning + Rephrasing</p> A simple line drawing of a magnifying glass. <p>If it's worth asking, it's worth everyone answering</p>
<p>Secure Fluency</p> A simple line drawing of a checklist with three items. <p>(Fluency = Accuracy + Speed)</p>	<p>Core Knowledge</p> A simple line drawing of four interlocking puzzle pieces.	<p>Secure pace</p> A simple line drawing of a speedometer or gauge.	<p>Avoid guessing games</p> A simple line drawing of a speech bubble containing a question mark.	<p>Assessment</p> A simple line drawing of a head profile with a circular arrow inside, indicating a cycle or process. <p>Quick, short burst and frequent</p>

2.) Examples of Supporting Strategies:

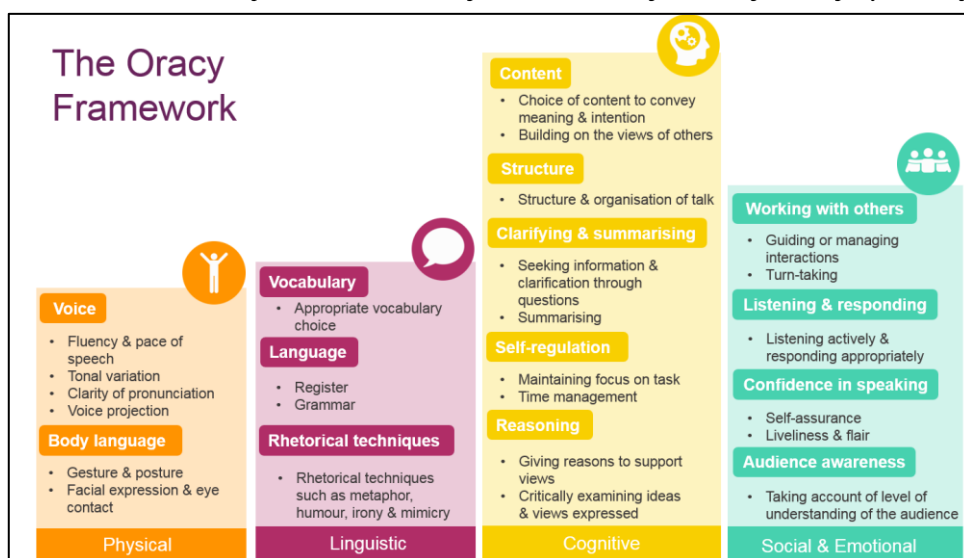
- Oracy Based Teaching and Learning Strategies: (Appendix 1):



Across our partnership, we recognise how oracy is a powerful tool for learning; by teaching students to become more effective speakers and listeners we empower them to better understand themselves, each other and the world around them. It is also a route to social mobility, empowering all students, not just some, to find their voice to succeed in school and life; hence becoming an 'articulate learner' as one of our seven curriculum drivers.

The deliberate, explicit and systematic teaching of oracy throughout the curriculum supports our children to make progress in the four strands of oracy outlined in the Oracy Framework below and as a central tool in delivering our six pedagogical Teaching and Learning Principles. On our journey to becoming Voice 21 accredited schools, these oracy-based teaching and learning strategies significantly support pupil learning with staff receiving extensive continued professional development within the area.

Further information is provided in Appendix 1 and can also be found within our 'Oracy Policy.'



- Our Standardised Lesson Format - A 'Learning Quest' (Appendix 2):

In order to support staff in consistently delivering our six core 'Pedagogical Principles', a bespoke standardised lesson format has been created, defined as a 'Learning Quest.' Utilised widely across our curriculum (including within Science and R.E lessons) the lesson structure provides staff with a structure to incorporate our six core 'Pedagogical Principles' within their lessons. Closely linked to 'Rosenshine's Principles of Instruction' - outlined in Appendix 2 - the well-embedded format allows staff to utilise appropriate evidence in conjunction with practitioner autonomy to deploy the most effective teaching and learning strategies for their learners. Supporting widespread evidence, the format is also proven to reduce cognitive overload for pupils due to its consistency in addition to supporting teacher workload across school.

- Teaching and Learning Strategies to Develop Vocabulary (Appendix 3):

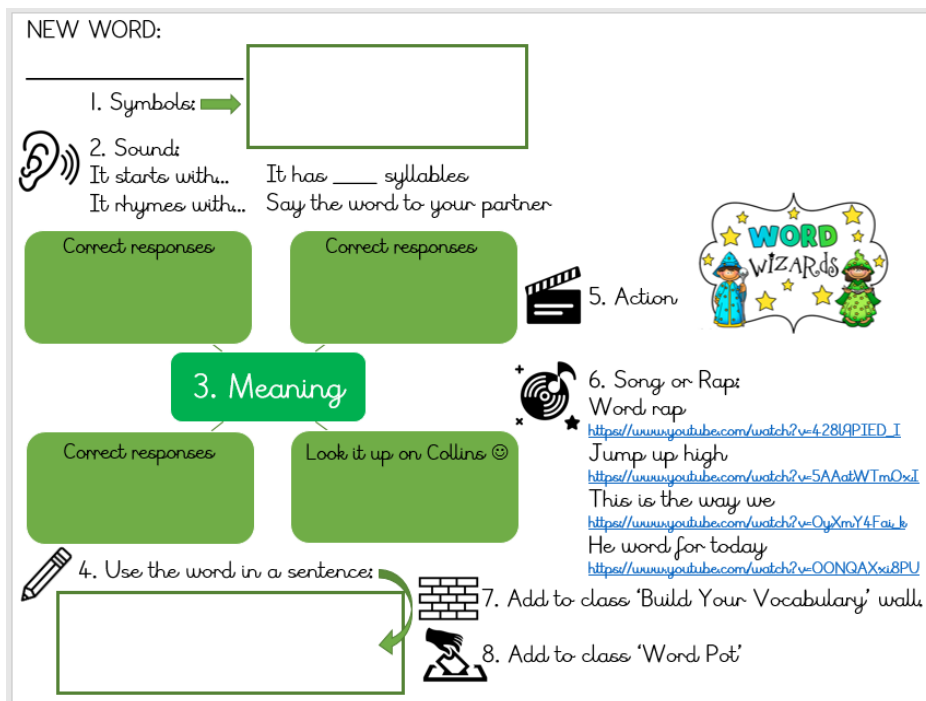
Embedded across all aspects of our core six 'Pedagogical Principles' is the teaching and learning of carefully mapped-out vocabulary. Utilising Word Aware recommendations, we have developed a structured whole school

approach to promote the vocabulary development of all children providing clear models, scaffold and challenge that can be utilised in all lessons.

Focussed on whole class learning, the resources we have created and adapted particularly support disadvantaged learners -

(including children with Special Educational Needs and those who speak English as an additional language) in addition

to being proven to extend the word learning of all students. The consistent approach, outlined in Appendix 3 and utilising the 'Word Wizard' above, provides practical ideas that can be easily adapted by our highly trained staff to develop both spoken and written vocabulary and again support in the delivery of our six pedagogical principles.



- Education Endowment Foundation - Teaching and Learning Toolkit:

The Education Endowment Foundation's [EEF] 'Teaching and Learning Toolkit' is also regularly reviewed by the Senior Leadership Team in order to support and update our toolkit of teaching and learning approaches. Based upon real life data about what has happened when particular approaches have been used in other schools before and providing high quality information about what is likely to be beneficial based on existing evidence, the toolkit provides an evidence-informed decision about what may work best in our school before being incorporated into the toolkit for dissemination.

<https://educationendowmentfoundation.org.uk/education-evidence/teaching-learning-toolkit>

3.) Subject Leader and Champion Continued Professional Development:

Across both schools, significant investment in Subject Leader and Champion professional development allows for subject specific teaching and learning recommendations to be effectively implemented and regularly updated. Both Subject Champions and Leaders attend termly LDST subject networks, which discuss national updates and innovative teaching and learning approaches. Once they have attended this is then disseminated to all staff for implementation before being incorporated into teaching and learning toolkit by the curriculum lead if deemed appropriate. This commitment to the professional development across subject leadership drives innovation in teaching and learning.

All relevant teaching staff are also offered the opportunity to completed relevant National Professional Qualifications (NPQs) as a nationally recognised suite of qualifications for teachers and school leaders at all levels. In the last year, several staff have completed the NPQLT, NPQSL and NPQLL driving forward sustained innovation and understanding in teaching and learning approaches. Relevant research from the course is again incorporated into the 'Teaching and Learning Toolkit' ensuring research is pertinent and reflective of current best practice.

Our Six Principles of Effective Teaching and Learning:

Our six core principles are the central components to effective teaching and learning, allowing for professional autonomy amongst staff. Our highly trained staff are able to decipher how these principles are best implemented to present subject and lesson specific materials in the most effective way to meet the needs of all their students.

- 1.) Challenge (Obtain High Success Rate and Provide Scaffolds for Difficult Tasks).
- 2.) Explanation (Present New Materials in Small Steps).
- 3.) Modelling (Provide Models and Scaffolds for Difficult Tasks).
- 4.) Practice (Guide Student Practise and Independent Practise).
- 5.) Questioning (Ask questions and check student understanding).
- 6.) Feedback (Daily Review and Weekly and Monthly Review).

1.) Challenge (Rosenshine's Principles of Instruction: Obtain High Success Rate and Provide Scaffolds for Difficult Tasks) -

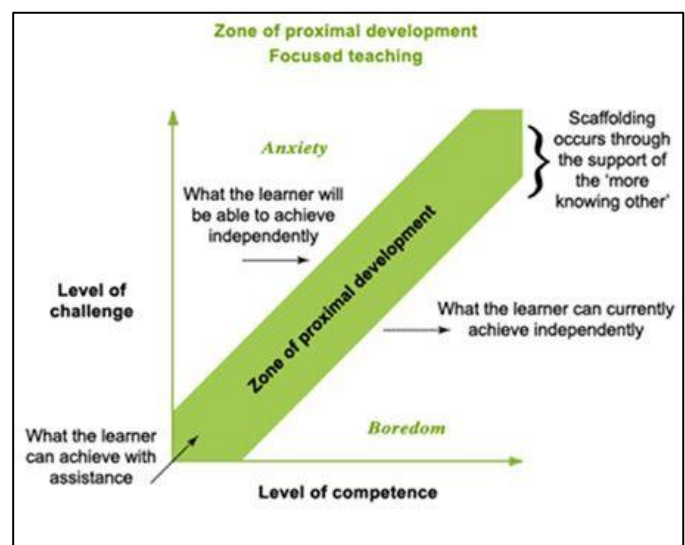
Definition:

Challenge is the provision of work which causes students to think deeply and engage in 'healthy struggle'. Effective challenge ensures that all pupils have high expectations of what they can achieve - ensuring that all pupils are able 'to know more and remember more' over a prolonged period of time.

Theory and Research:

Robert Coe, in his paper 'Improving Education' (2013) stated that "learning happens when people have to think hard"; a claim that is widely supported across academic literature. Seminal research can be summarised with the intention of having to keep students in the challenge zone, or as Vygotsky (1978) describes within the 'zone of proximal development' (whereby students learn most and best when they are engaged in challenging work that they can complete with or without appropriate support).

The principle of challenge is also closely linked to 'Growth Mindset Theory' (Dweck), relating to a state of mind whereby intelligence is malleable -



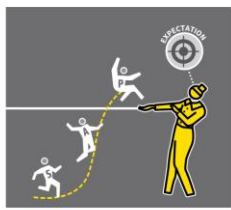
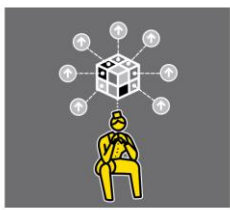







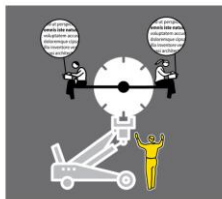


those who hold a 'growth mindset' believe that they can get better at something by dedicating time, effort and energy focussed upon the learning process and not the outcome.

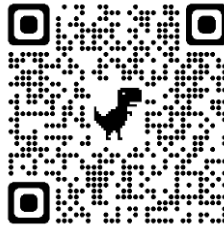

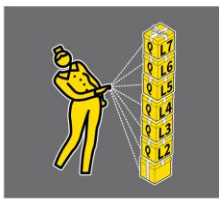
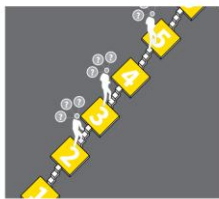
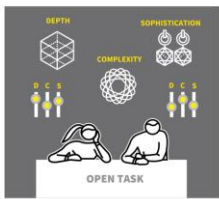
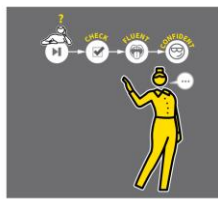
Research by Rosenshine (2012) found that the optimal success rate for fostering student achievement appears to be approximately 80 percent. A success rate of 80 percent shows that students are learning the material, and it also shows that the students are sufficiently challenged.

Implications for Teaching and Learning at Parish and St James:

Throughout our curriculum, tasks are planned with Vygotsky's 'Zone of Proximal Development' in mind. Teachers aim to strike a clear balance between the independence of learners and level of scaffold provided. All children are taught to the top 'pitching it up' and our Quality First Teaching Toolkit (Appendix 4) is central to this with strategies for all learners alongside specific approaches those with Special Educational Need (SEND).

Challenge Strategies:	
Strategy 1.1: Pitch It Up.	
<p><u>Purpose:</u> To ensure all pupils reach a certain standard of expectation.</p>	
<p><u>Description:</u></p> <p>High expectations for both behaviour and the standard of work produced are essential. To 'pitch it up', explore all the possible opportunities for taking a more challenging path and eliminate low level tasks that don't push students forward in their learning. This is a key focus of the curriculum design process on a whole school and unit-by-unit basis. The key is to aim for depth before speed.</p>	
	<p><u>Core WalkThrus Link:</u> Pages 58-59.</p> <p><u>Supporting Research:</u></p> <p>https://www.youtube.com/watch?v=Ejbl7zW-VW&t=4s</p> <p>https://www.teachertoolkit.co.uk/2017/10/31/pygmalion-effect/</p>
 <p>AIM FOR DEPTH BEFORE SPEED</p>	 <p>EXPECT SOPHISTICATION, ACCURACY AND PRECISION</p>
 <p>SELECT THE MORE DEMANDING CURRICULUM OPTIONS</p>	 <p>ELIMINATE MEDIOCRITY — e.g. LOW-LEVEL TASKS</p>
	 <p>INCREASE THE INTENSITY</p>

Challenge Strategies:				
Strategy 1.2: Plan for Reading.				
<u>Purpose:</u> Improving students' reading confidence is central to the curriculum as a whole; this must be challenging to all pupils.				
<u>Description:</u> It is essential to plan for reading throughout all areas of curriculum planning. Planning for this includes teachers examining how students' fluency in reading and their knowledge of the subject can be mutually reinforced to challenge all learners. Appropriate reading materials must be selected and appropriate activities utilised so that reading is successfully embedded into the routines of lessons as the 'beating heart' of the curriculum.	 <u>Core WalkThrus Link:</u> Pages 60-61. <u>Supporting Research:</u> https://educationendowmentfoundation.org.uk/education-evidence/teaching-learning-toolkit/reading-comprehension-strategies https://teacherhead.com/2022/09/24/five-ways-to-the-booklet/ (page 5).			
 MAKE READING CENTRAL TO YOUR PLANNING	 IDENTIFY KEY VOCABULARY, PHRASES AND WRITING STEMS	 PLAN READING RESOURCES	 PLAN COMPREHENSION ACTIVITIES	 BUILD TOWARDS INDEPENDENT READING

Challenge Strategies:				
Strategy 1.3: Tiered Questions and Problems.				
<p><u>Purpose:</u> To tier challenges and problems, all students can progress through the steps in different ways whilst keeping long-term goals in mind.</p>				
<p><u>Description:</u></p> <p>The challenge is to set students appropriate levels of practise without lowering long-term expectations and putting a ceiling on what they can achieve. By tiering challenges and problem sets, alongside designing open-ended tasks that allow responses at a range of levels, all students can progress through the steps at their own level without impacting upon their progress.</p>	 <p>Core WalkThrus Link: Pages 62-63.</p> <p>Supporting Research:</p> <p>https://teacherhead.com/2017/05/28/teaching-to-the-top-attitudes-and-strategies-for-delivering-real-challenge/</p>			
 <p>MAP THE STAGES OF DIFFICULTY IN A TOPIC</p>	 <p>ASSEMBLE QUESTIONS TO SUPPORT PRACTICE AT EACH LEVEL OF DIFFICULTY</p>	 <p>PRODUCE TIERED QUESTION SETS THAT STEP UP THROUGH THE LEVELS</p>	 <p>DESIGN OPEN TASKS THAT ALLOW RESPONSES AT A RANGE OF LEVELS</p>	 <p>DESIGN 'WHAT NEXT' ROUTINES</p>

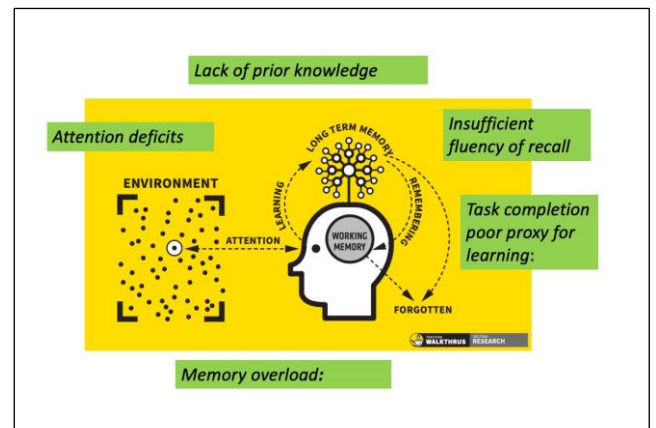
2.) Explanation (Rosenshine's Principles of Instruction: Present New Materials in Small Steps) -

Definition:

Explanation is the framing of information in such a way that all students are able to secure and interpret new knowledge.

Theory and Research:

Students learn ideas by referencing them to ideas they already know creating schema. If students manage to categorise this new information into an existing schema within their long-term memory, learners will retain this new information. Explanations must therefore relate information to their existing schema. Where knowledge gaps exist, research suggests this usually occurs from:



1. Gaps in experience - insufficient exposure to situations, phenomena, events, places so that abstract ideas can't be rooted firmly in a foundational schema and are either not understood or are swiftly forgotten
2. Gaps in memory (including gaps in understanding - ie knowing how ideas connect): not having encountered knowledge before or failing to absorb knowledge into memory
3. Gaps in confidence and fluency - where knowledge has been encountered but hasn't been subjected to sufficiently intense or varied practice such that students are continually tentative or forgetful or prone to errors
4. Limited or faulty schema: where knowledge has been arranged in a schema that contains misconceptions, preventing students making sense of new information.

Implications for Teaching and Learning at Parish and St James:

Our teachers ensure that explanations build on prior knowledge to learn the new information. Our carefully planned curriculum coherently links to and builds on something already known with teachers incorporating short reviews of previous learning (Rosenshine, 2012) across all subjects and lessons. Teachers understand and allow for the limitations of the working memory when asking students to take on board new information and giving instructions. This means that staff present new information in small steps with student practice after each step (Rosenshine, 2012). Abstract concepts are also made concrete - staff consider how to make abstract ideas make sense, including diagrams, models, scaffolds and significantly clear explanations. This is intrinsic to all lessons taught but does not mean staff must do all of the talking.

Explaining Strategies

Strategy 2.1: Dual Coding: Recount and Recall

Purpose: To allow for visual sharing of schemas, to bypass constraints of the working memory.

Description:

Dual coding: recount and recall allows teachers to share their scheme with students visually as well as with words. This understanding is strengthened through peer explanation and this provides a great opportunity for oral rehearsal in preparation for later writing.



Core WalkThrus Link: Page 70-71.

Supporting Research:

<https://www.youtube.com/watch?v=vsKBWsW2Uhw>



CONSTRUCT & EXPLAIN YOUR DIAGRAM



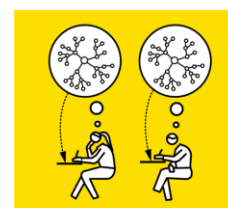
COPY & EXPLAIN THE BRANCH WITH TRACING OF THE LINES



REPEAT THE SAME PROCESS UNTIL THE WHOLE DIAGRAM IS COMPLETE



RECOUNT THE WHOLE DIAGRAM TO PARTNER, WITH TRACING



REDRAW THE WHOLE DIAGRAM FROM MEMORY

Explaining Strategies

Strategy 2.2: Deliberate Vocabulary Development

Purpose: To ensure the process for learning new vocabulary is deliberate and explicit as part of teacher instruction.

Description:

These steps support a deliberate vocabulary development process for all learners. The words must be specified and defined before a deliberate and systematic approach is utilised to support the application and fluency of the words. Words must be used verbally and in writing to internalise their learning.



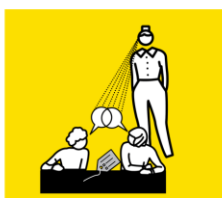
Core WalkThrus Link: Pages 72-73.

Supporting Research: Word Aware Approaches (See Appendix 3).

<https://www.theconfidentteacher.com/2021/05/three-pillars-of-vocabulary-teaching/> (Alex Quigley - Closing the Vocabulary Gap).



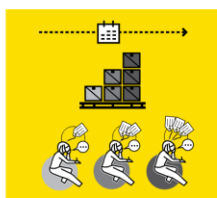
SPECIFY AND DEFINE THE WORDS



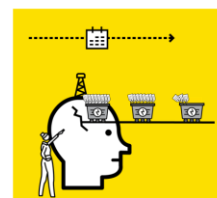
SAY THE WORDS



READ WORDS IN CONTEXT



PRACTISE USING THE WORDS VERBALLY AND IN WRITING



ENGAGE IN WORD-BASED RETRIEVAL PRACTICE

Explaining Strategies:

Strategy 2.3: Pre-Teach Some Key Vocabulary

Purpose: To ensure the process for learning new vocabulary is deliberate and explicit as part of teacher instruction. Children need to be secure in all the vocabulary **before** you start to read about the vocabulary.

Description:

Pick out four or five key words (not too many) which pupils will learn more about further into the lesson. The trick is to make sure pupils are really interested in these words and have practised saying the words, in different contexts, **before** you get anywhere near reading or deeper explanation. Double check, through fast-paced questioning, that all pupils are really secure in these words and then when you (or they) read any passage aloud containing the words, they will recognise the word quickly and interpret the sentence more easily.



Pupils Hear you Say the Words:

It's important to pronounce new words clearly and carefully, ensuring all pupils are listening. Say them in different contexts - not just with definitions but in varied sentences which model their flexible and interesting use.

If a tricky word has many syllables, then sound each syllable out in their choral response, until they get faster with saying it accurately and until they enjoy saying it accurately.

This means you need to be loud and proud in how you say each syllable, making sure each consonant is heard and every vowel is super clear. Practise one syllable at a time if they are being sloppy with it! For example, you would split these words like this, taking care to ensure they have heard you express every consonant properly:

Tut - ankh - amun

Trib - ut - ary



Pupils need to hear themselves say the words (choral response).

When pre-teaching some selected vocabulary before pupils encounter it in the text, get all pupils to say it together, several times, in differing contexts. This is fun, powerfully inclusive, and keeps the lesson pacy.

Get all pupils to say it together, several times, in differing contexts. This is what we mean by 'choral response'. Watch their lips and make sure all are joining in. It's a very safe way for shy or quiet pupils to find a 'voice' and practise words.

There are so many fun ways to do this. Consider our 'Word-Aware Strategies.'



Explaining Strategies:

Strategy 2.4: Storytelling

Purpose: To use a story to illustrate key ideas and build schema. Watch pupils as they are enthralled. Watch their eyes. Watch as they want to know more...

Description:

Often a story involves mystery and drama. Big this up; build on it. You won't be able to find those moments of drama and tension, unless you have read the story yourself beforehand.

Don't be afraid to spend a good while on storytelling. It is the glue that holds the lesson together.

Your storytelling will engage pupils and entice them in; they will want to know more. You will learn more about story telling both in the live training sessions and in the remote training sessions that you can do in your own time.

When storytelling, it's avoid falling back on 'so... what do we think...?' Just tell the story!



Explaining Strategies:

Strategy 2.5 Big Picture, Small Picture

Purpose: To illustrate how ideas are connected and understand the bigger picture of learning.

Description:

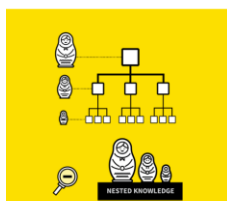
Understanding the 'Big Picture, Small Picture' can help students to form coherent schema if teachers front-load the process of organising information in the way ideas are introduced. Set out the big picture, explicitly zoom in on one area and then ensure that students can make the links themselves.



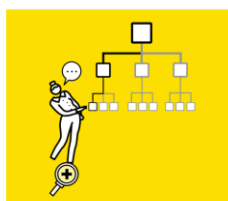
Core WalkThrus Link: Pages 74-75.

Supporting Research:

<https://teacherhead.com/2019/02/12/curriculum-notes-2-big-picture-first-then-zoom-in/>



SET OUT THE BIG PICTURE



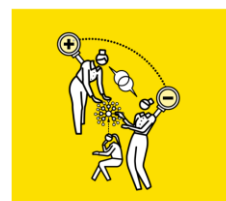
ZOOM IN — ORIENTATE!



ZOOM IN AND ZOOM OUT
STEP BY STEP



REHEARSE AND CHECK FOR
UNDERSTANDING



USE THE ZOOM IN/ZOOM
OUT PROCESS ROUTINELY

Explaining Strategies:

Strategy 2.6: Abstract Models with Concrete Examples.

Purpose: To support students in making a connection between concrete examples and abstract concepts.

Descriptions:

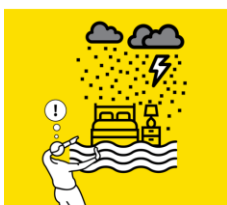
Making a connection between concrete examples and abstract concepts is extremely challenging. Teachers can support this process through linking examples and models both deliberately and explicitly. Retrieval of previously taught concrete examples is essential.



Core WalkThrus Link: Pages 76-77.

Supporting Research:

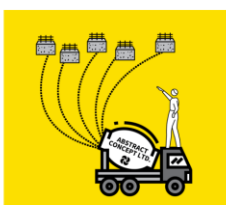
<https://teacherhead.com/2020/10/22/reaching-into-the-corners-12-ways-learning-can-be-hard-and-what-to-do-about-it/>



DEMONSTRATE AN EXAMPLE



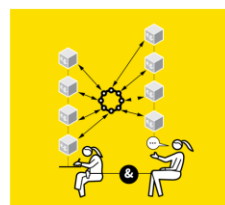
DEFINE THE CONCEPT IN GENERAL TERMS



PROVIDE FURTHER CONCRETE EXAMPLES



CHECK FOR UNDERSTANDING



ENGAGE IN RETRIEVAL PRACTICE

Avoid Guessing Games:

Take care to avoid wasting big chunks of time with 'Can anyone remember?', 'Does anyone know?'. This can really make a lesson drag because pupils start guessing or getting basic things wrong. Misconceptions are simply repeated. Other pupils hear and embed wrong information.

Either they SHOULD remember / know, because you've taught it and reinforced it explicitly (and you're doing some pacy retrieval practice in the interests of memory and full inclusion) in which case it's not appropriate to ask 'Can anyone remember?' because you know they all can and you're just getting them to retrieve and rehearse it for practice. OR they genuinely don't know, because they have not been taught, in which case it's time to teach it explicitly, not to meander into it through half-remembered confusions.

Never just put a picture up and begin with a totally open-ended question such as 'What can you see?' Be much more focused than this (the Powerpoints will help you see what is important). Otherwise, pupils will bring up all sorts of very random stuff that won't allow you to keep up pace and will not help you to get them thinking about the specific religious, geographical or historical things you want them to think about.

Of course, this doesn't mean that you don't want to make space for open discussion of stories, for pupils' own questions, for more open-ended questions, for whole-class reflection and exploration. But don't confuse this with getting secure in the basics. You, as teacher, can control and drive that process, and the more you do, the more space there is for ALL pupils to feel involved in any whole-class discussion or reflective/creative activity.



3.) Modelling:

(Rosenshine's Principles of Instruction: Provide Models and Scaffolds for Difficult Tasks).

Definition:

Modelling is the guiding of students through each stage of a task and explaining the rationale of each stage prior to a student's independent attempt. Modelling helps pupils understand new processes and ideas; good models make abstract ideas concrete and accessible.

Theory and Research:

Cognitive psychologist George Miller discovered in the 1950s that the human working memory can, at best, hold seven ideas or concepts at once, although many now predict that this is much lower. When we get 'smarter' that is due to a process known as 'chunking', where students attach new ideas to existing schema and new information no longer takes up the space in the working memory, and thus more challenging tasks can be completed. Modelling allows students to become familiar with each step (or 'chunk') in advance to completing the full task independently, which helps to lessen the chance of over-exposure to new concepts and the potential for cognitive overload. By providing worked examples, students also see what they are aiming to achieve, which also reduces the burden. Therefore according to Rosenshine, 'students need cognitive support to help them to learn to solve problems.'

Rosenshine's Principles of Effective Instruction states that effective teachers provide 'a good deal of instructional support' and one of the ways they do this is through modelling. Of Rosenshine's seventeen principles of effective instruction, two of them explicitly refer to modelling. Rosenshine states that effective teachers 'provide models of worked-out problems' and 'think aloud and model steps.'

Durrington Research School emphasises the importance of effective modelling, stating that it should 'enable students to reflect on the processes of task completion and then gradually remove the modelling scaffolding, thus developing independent and highly metacognitive students.' Durrington Research School does, however, acknowledge the difficulty of this.

Implications for Teaching and Learning at Parish and St James:

Teachers explain the key ideas before modelling how to do it and what to do with it. This falls in to two main categories: **Task Modelling** is where teachers show pupils how to complete a task by doing it themselves. **Metacognitive Modelling** is where our teachers show pupils how to approach a task by modelling the thinking process e.g. thinking aloud. This refers to narrating thought processes when modelling to make explicit how experts think.

Modelling Strategies:

Strategy 3.1: Worked Examples and Backward Fading

Purpose: To provide a series of completed worked examples to support pupil success.

Description:

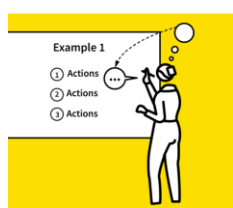
Providing worked and backward fading reduces the cognitive load for pupils (as they learn the overall method separately to the question). Once we know the method it is easier to apply it successfully in the context of different questions. Teachers must ensure they are providing enough worked examples, moving from guided to independent practice.



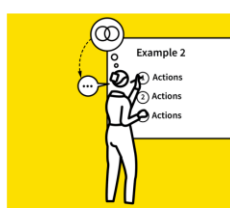
Core WalkThrus Link: Pages 68-69.

Supporting Research:

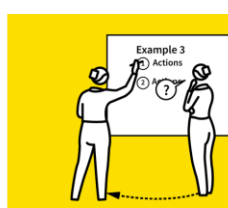
<https://tomneedhamteach.wordpress.com/2018/10/15/applying-cognitive-load-theory-to-english-part-3-the-problem-completion-effect-an-overview/>



**FULLY WORKED TO
INTRODUCE THE METHOD
OR IDEAS**



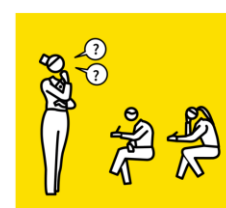
**FULLY WORKED FOR
REINFORCEMENT**



**PARTIALLY WORKED FOR
STUDENTS TO FINISH OFF**



**CUED START FOR STUDENT
COMPLETION**



**COMPLETED
INDEPENDENTLY**

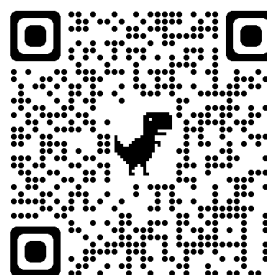
Modelling Strategies:

Strategy 3.2: Live Modelling [CORE 10]

Purpose: To show pupils the learning process before they complete the task.

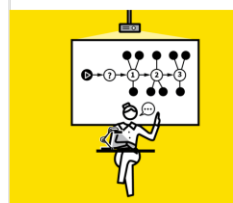
Description:

Teachers walk through a learning process themselves, showing students how to do key things, highlighting key procedures and any thinking that underpins them. This holds a vital metacognitive aspect (making decision making explicit) as well as providing examples of completed work that can serve as scaffolds for students to base their work upon in the initial stages.

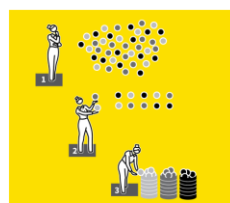


Core WalkThrus Link: Pages 78-79.

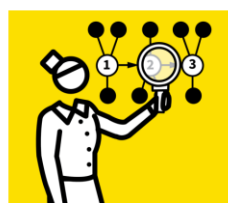
Supporting Research: <https://teacherhead.com/2022/09/24/five-ways-to-the-booklet/> (Page 12).



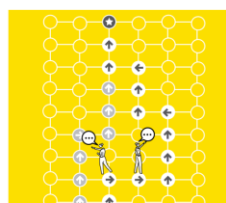
**MODEL EACH STAGE STEP
BY STEP**



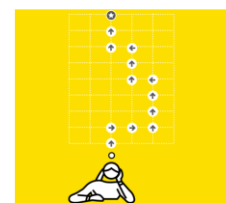
**MODEL HOW YOU ORGANISE
MESSY THINKING**



**REVIEW THE SUCCESS OR
QUALITY OF YOUR
OWN WORK**



**MODEL ALTERNATIVES AND
FURTHER EXAMPLES**



**SET TASKS TO EMULATE
THE MODEL**

Modelling Strategies:

Strategy 3.3: Scaffolding. [CORE 10]

Purpose: To provide support for all students to achieve the learning outcome rather than setting lower expectations.

Description:

Teachers support children to reach ambitious goals using a range of scaffolding processes that guide them on their way.

Providing scaffolds at a variety of levels (including at a detailed and an overview level) is vital. It is also essential that once ready, these scaffolds of support are withdrawn, as it is temporary strategy that must not become relied upon.



Core WalkThrus Link: Pages 80-81.

Supporting Research:

<https://teacherhead.com/2022/09/24/five-ways-to-the-booklet/> (Page 8).



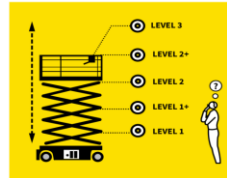
MAP OUT THE COMPONENTS OF A TASK



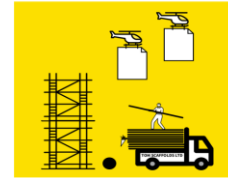
PROVIDE SUPPORTS AT A DETAILED LEVEL



PROVIDE SUPPORTS AT OVERVIEW LEVEL



PREPARE SCAFFOLDING SETS OFFERING VARYING LEVELS OF SUPPORT



TAKE THE SCAFFOLDING DOWN

Modelling Strategies:

Strategy 3.4: Metacognitive Talk: Narrate the Thinking.

Purpose: To develop pupils' metacognitive ability through teacher modelling and narration of their thought process.

Description:

Teachers can support students in developing their capacity for metacognitive thinking by modelling it and promoting metacognitive talk in lessons. Essentially, it is a process of narrating through processes and making them explicit before reviewing how they have been successful.



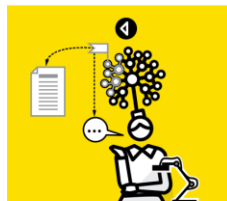
Core WalkThrus Link: Pages 82-83.

Supporting Research:

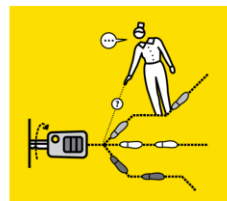
<https://classteaching.wordpress.com/2020/03/12/developing-metacognitive-talk-in-students/>



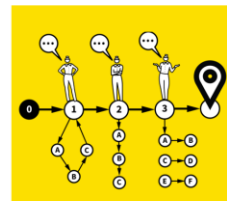
SET A PROBLEM AND EXPLORE IT



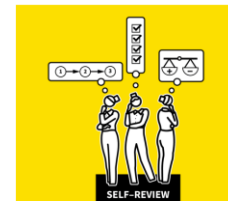
WHAT DO WE ALREADY KNOW?



WHERE DO WE START?



MAKE A PLAN AND MONITOR



HAVE WE BEEN SUCCESSFUL?

Modelling Strategies:

Strategy 3.5: Set the Standards.

Purpose: To make it clear how to approach a learning goal and set the high standards of work within the lesson.

Descriptions:

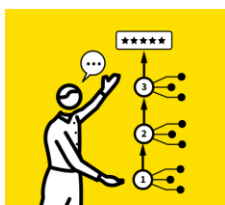
Set the standards makes it clear how to achieve a learning goal. Pupils should engage in a process of clarifying the learning goals and exemplifying what excellence looks like. Exemplars of successful example alongside success criteria are also significant here.



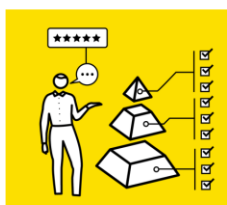
Core WalkThrus Link: Pages 84-85.

Supporting Research:

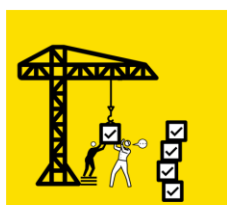
<https://teacherhead.com/2013/11/20/defining-the-butterfly-knowing-the-standards-to-set-the-standards/>



MAKE WHAT DOES EXCELLENCE LOOK LIKE? A ROUTINE



DECONSTRUCT EXEMPLARS



CO-CONSTRUCT SUCCESS CRITERIA



REFERENCE CONTRASTING EXEMPLARS



BLEND TEACHER ASSESSMENT AND SELF-ASSESSMENT

Modelling Strategies:

Strategy 3.6: Head-on Misconceptions:

Purpose: To pre-empt common misconceptions and unpick faulty schema with deliberate re-thinking.

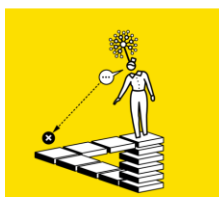
Descriptions:

Students often develop misconceptions. However, if students have developed a schema around a misconception, it is not sufficient to continually re-teach the correct version because the misconception will resurface. The schema must be rewired to make the correct version the default.



Core WalkThrus Link: Pages 86-87.

Supporting Research:



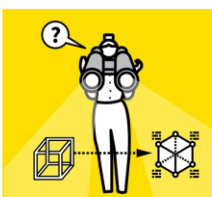
IDENTIFY COMMON MISCONCEPTIONS



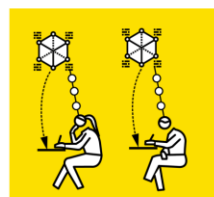
INTRODUCE A MISCONCEPTION EXPLICITLY: WHY IS IT WRONG?



REINFORCE A CORRECT UNDERLYING CONCEPTUAL MODEL



CHECK FOR UNDERSTANDING OF THE MISCONCEPTION AND THE CORRECTION



PRACTISE THE CORRECT VERSION

4.) Practice:

(Rosenshine's Principles of Instruction: Guide Student Practise and Independent Practise).

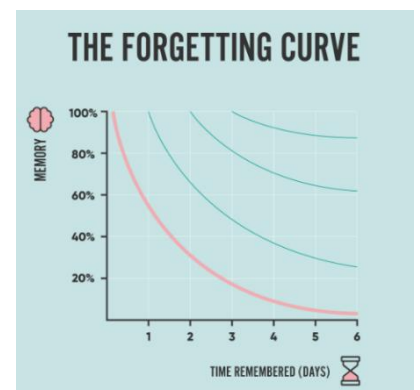
Definition:

Practice requires students to develop fluency and expertise by recalling previous knowledge and applying it to different context with increasing independence. Effective retrieval is at the heart of this.

Theory and Research:

Rosenshine states that teachers need to be spending more time cultivating a classroom environment that provides students with the opportunity to practise retrieval with the material they're learning. The more students can practise rehearsal, the easier it becomes to retrieve this information from their long-term memory when they need it.

However, Dunlosky also identified that students must be allowed to 'forget'. Robert & Elizabeth Bjork's 'New Theory of Disuse' has underlined its importance in the learning process. They explain that everything we ever encounter has a retrieval strength (how easily we can recall information) and a storage strength (how well we know something); retrieval strength completely determines our ability to recall memories, but it's storage strength that governs how quickly we forget and regain information. They found that as we forget and retrieval strength dips, when we practice there's a noticeably larger increase in storage strength, showcasing how forgetting creates the opportunity to reach additional levels of learning. Therefore, practicing following a period of forgetting is what leads to long-term memorisation.



Practice also relates to the concept of 'mastery teaching'. Mastery teaching involves getting students to master a topic (for example, achieve 90% or above in a test) before moving on. This is typically done through getting a student to engage in 'deliberate' or 'purposeful' practice.

Implications for Teaching and Learning at Parish and St James:

Teachers carefully create opportunities for students to practice using new knowledge and skills. This takes places through practice for fluency and long-term retention, which involves repeating things in order to master them and coming back to things in subsequent lessons

(<https://teacherhead.com/2022/09/24/five-ways-to-the-booklet/> (page 14). Teachers also consider the careful transition from guided to the end goal of independent practice.

Practice (and Retrieval) Strategies:

Strategy 4.1: Quizzing [CORE 10]

Purpose: To check that students have learnt the material that you want them to know.

Description:

The process of quizzing provides information to both student and teacher about what they have learnt and where any gaps exist. It also supports retrieval of previously learnt knowledge so that it will become easier to remember later and fluently.



Core WalkThrus Link: Pages 112-113.

Supporting Research: Katie Jones - Retrieval Practice: Primary.



SPECIFY THE MATERIAL IN ADVANCE



ASK A SET OF SHORT FACTUAL RECALL QUESTIONS, VARYING IN STYLE



GIVE ALL STUDENTS TIME TO ANSWER ALL OF THE QUESTIONS



PROVIDE THE ANSWERS FOR STUDENTS TO SELF OR PEER-CHECK



AFFIRM GOOD PERFORMANCE AND SEEK OUT WRONG ANSWERS

Well-spaced bits of quizzing:

Sometimes this is a set of questions, requiring full sentence answers, sometimes it's true/false quiz, sometimes it's just prompts or more creative questions. Some can be carried out fast, with the whole class, some are for pair work. You will find a lot of variety in approaches to retrieving old knowledge, both knowledge just taught, five minutes ago, and knowledge from lessons before.



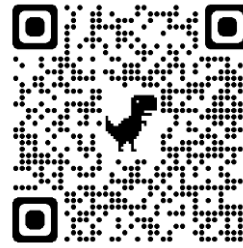
Practice (and Retrieval) Strategies:

Strategy 4.2: Using a Knowledge Organiser.

Purpose: To provide pupils with accessible guidance about knowledge that they can study on their own in order to build a secure schema.

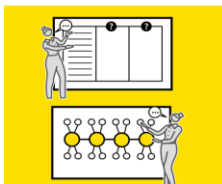
Description:

Knowledge organisers are intended as a summary, not an exhaustive list of all that could be known. However, that only serve a purpose if they are used effectively linked to retrieval techniques.



Core WalkThrus Link: Pages 116-117.

Supporting Research: <https://thirdspacelearning.com/blog/knowledge-organisers/>
<https://classteaching.wordpress.com/2018/09/14/using-knowledge-organisers-to-improve-retrieval-practice/>



DESIGN KNOWLEDGE ORGANISERS TO BE QUIZZABLE



FOCUS ON SPECIFIC ELEMENTS



READ AND REHEARSE



CLOSE OR COVER FOR GENERATIVE RECALL



CHECK FOR ACCURACY

Practice (and Retrieval) Strategies:

Strategy 4.3: Peer Supported Retrieval.

Purpose: To train students to test each other's knowledge and provide corrective feedback.

Description:

Students test each other's knowledge, supported by resources to ensure that feedback is accurate. The process is refined over time with the use of questions and answer prompts and relevant models essential. Careful selection of positive groupings is key here.



Core WalkThrus Link: Pages 120-121.

Supporting Research: Katie Jones - Retrieval Practise.



PROVIDE QUESTION AND ANSWER PROMPTS



ALLOCATE CHECKING PARTNERS



STUDENT 1 ASSESSES STUDENT 2



STUDENT 2 TESTS STUDENT 1



DISCUSS COMMON DIFFICULTIES

Practice (and Retrieval) Strategies:

Strategy 4.4: Guided Practice [CORE 10]

Purpose: To devote time to guiding the early stages of practice.

Descriptions:

Guided practice is a culmination of many different WalkThrus, ensuring pupils are achieving a high success rate when they begin to learn new material. Pupils require clear models and scaffolds, ensuring that practise what is right and not what is wrong. This will inform the teacher of whether it is the right time to move onto independent practice.

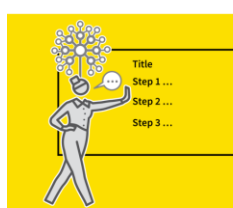


Core WalkThrus Link: Pages 120-121.

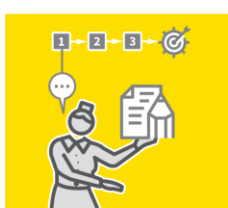
Supporting Research:

<https://teacherhead.com/2021/01/17/applying-rosenshines-principles-to-specific-contexts/>

<https://teacherhead.com/2018/09/09/great-teaching-the-power-of-practice/>



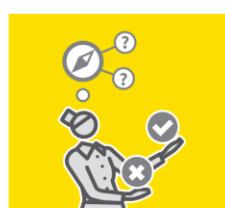
EXPLAIN AND MODEL THE NEW LEARNING



SET SHORT TASK USING MODELLED KNOWLEDGE OR SKILL



CIRCULATE ACTIVELY CHECKING FOR SUCCESS



CHECK FOR ERROR; AFFIRM SUCCESS



RE-TEACH OR EXTEND THE PRACTICE

Practice (and Retrieval) Strategies:

Strategy 4.5: Independent Practice

Purpose: To provide extensive practise allowing students to reach the point where they can apply their learning independently.

Descriptions:

Independent practice supports the overlearning that is essential for students to develop the automaticity needed for fluent application and recall in the future. There is a fine balance from moving from guided to independent practice, as teachers gradually reduce the amount of guidance they provide. The key is to increase challenge over time.



Core WalkThrus Link: Pages 128-129.

Supporting Research:



SECURE GUIDED SUCCESS



REMOVE SCAFFOLDS AND INITIATE PRACTICE



CHECK AND FEEDBACK



REDUCE GUIDANCE OVER TIME



INCREASE CHALLENGE OVER TIME

5.) Questioning

(Rosenshine's Principles of Instruction: Ask questions and check student understanding).

Definition:

Questioning is an essential formative assessment tool for teachers, that has many purposes, including to check pupils' prior knowledge, assess understanding and break down problems.

Theory and Research:

A research study conducted by Levin and Long (in the 1980s) concluded that teachers ask between 300-400 questions a day, meaning it is an essential strategy for all educational practitioners to develop and perfect. In 2012, Barak Rosenshine published his paper on evidence-based instruction, within which questioning was identified as one of the ten most impactful strategies for improving student outcomes. The results from Rosenshine's studies showed that the students of the teachers who asked a great number of questions within lessons, did significantly better than the students of those who did not. However, Rosenshine also identified that successful teachers ask a lot of process questions, while the less successful teachers asked almost none. Thus, the impact that questioning can have on student outcomes does not necessarily derive solely from the quantity of questions that are asked within a lesson, but also from the quality of the questions asked.

There are many types of ways to categorise questions. One simple way to begin to categorise questions is to sort them into two groups: open questions and closed questions. Open questions are those that require an explained answer or depth of thinking, while closed questions require a 'yes' or 'no' answer, or an answer within a limited range such as only one correct response. Dylan Wiliam cited in his own teaching how giving students a limited amount of 'think time' led to only a handful of students feeling confident enough to answer his questions. This led Wiliam to propose a different type of diagnostic questioning, known as 'hinge questioning'. Hinge questions seek to be both brief (allowing for pace) and more accurate in eliciting whether all students have completely understood a concept or not.

Implications for Teaching and Learning at Parish and St James:

Our teachers are highly skilled to know how some questions can be planned for while some should be responsive to what is happening in the lesson. Staff are trained in asking a wide range of questions including those that: check for understanding (<https://teacherhead.com/2022/09/24/five-ways-to-the-booklet/> - page 6), check the responses of all students, increase the ratio of participation and thinking of all students and provoke deeper thinking.

Questioning Strategies

Strategy 5.1: Cold Calling [CORE IQ]

Purpose: To increase engagement levels across the class, ensuring all children are ready to answer questions.

Description:

Often referred to as 'no hands up', this strategy helps to make all students think. It is important to involve all pupils in the thinking and to sample responses strategically. If you allow 'hands up' or 'calling out', you only get responses from volunteers. Cold calling allows you to choose who answers, keeping the whole class involved and giving better information from which to plan next responsive steps.



Core WalkThrus Link: Pages 90 and 91.

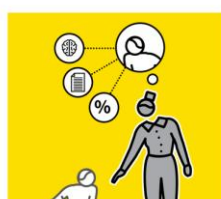
Supporting Research: <https://teacherhead.com/2021/02/07/cold-calling-the-1-strategy-for-inclusive-classrooms-remote-and-in-person/>
<https://www.youtube.com/watch?v=UFXy4vmdBMg>



ASK THE CLASS THE QUESTION



GIVE THINKING TIME



SELECT SOMEONE TO RESPOND



RESPOND TO THE ANSWERS



SELECT ANOTHER STUDENT AND RESPOND AGAIN

Don't ask one, ask five

If you're checking particular pupils have understood and remembered the word 'irrigate' or 'irrigation', don't just choose one pupil. The rest of the class will know they can fall asleep. Choose five in quick succession so that all pupils are doing the work of retrieval in their heads because they know they might be asked.

Take a sentence and keep rephrasing the question in different ways so they have to use the words in different combinations in a full sentence. For example:

You: What was the name of the man who became the governor of the Roman province of Gaul?

Pupil: The name of the man who became the governor of the Roman province of Gaul was Caesar.

You: Which Roman province did Caesar become the governor of?

Another pupil: Caesar became the governor of the Roman province of Gaul.

You: What was Caesar's role in the Roman province of Gaul?

Another pupil: Caesar's role in the Roman province of Gaul was governor.



Secure Fluency

In those bits of lessons when you're teaching pupils the meaning of the words, a little sequence in a story, the location of something on a map or diagram, and you want to check they've got it, demand accurate response quickly. A good definition of 'fluency' is not just accuracy but accuracy plus speed. The goal is for knowledge to be so embedded that pupils do not have to stop and think about it. Then their struggle to remember basic things won't use up spaces in working memory, that you want for other things. You want basics (like what 'irrigation' means) to be automatic- i.e. fast and accurate. Then we can move onto something harder and more geographical such as thinking hard about the effects of irrigation or studying a photograph to describe an irrigation system.

If pupils are completely secure in fundamentals, then working memory is freed up for interesting thinking and higher order operations. A sign of security in those fundamental is rapid retrieval in differing contexts. Strong teachers build an expectation in pupils that they'll be asked to recall things fast. Their classrooms are full of fun in ensuring pupils practice this and enjoy the wonderful sense of accomplishment it brings.



Questioning Strategies:

Strategy 5.2: Think, Pair, Share

Purpose: For pupils to engage in structured discussion, providing an opportunity for the voice of each pupil to be heard.

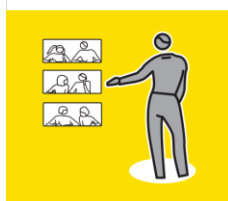
Description:

Throughout the learning sequence, it can be beneficial for students to engaged in structured discussion. Pairs are one powerful way to involve all students to talk about the material in hand in a structured manner; switching between this and whole class listening.



Core WalkThrus Link: Pages 92-93.

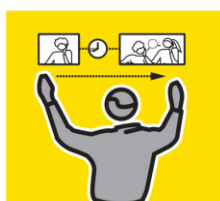
Supporting Research: Oracy Policy.



ESTABLISH TALK PARTNERS FOR EVERY STUDENT



SET THE QUESTION WITH A GOAL AND A TIMEFRAME



BUILD IN THINKING TIME



CIRCULATE TO LISTEN AS PAIRS ARE TALKING



USE COLD CALL TO SAMPLE PAIRS' RESPONSES

Questioning Strategies:

Strategy 5.3: Show Me Boards

Purpose: To allow all children to simultaneously answer a question using mini whiteboards.

Description:

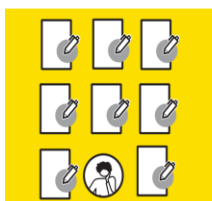
Use of mini whiteboards as show me boards, allows students to write on boards in response to a question and then simultaneously show pupils their responses. This provides the teacher with a range of feedback about the range of responses around the class. It also helps students to generate ideas or practise making diagrams/short sentences before formally recording.



Core WalkThrus Link: Pages 94-95.

Supporting Research:

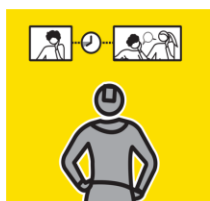
<https://researchschool.org.uk/durrington/news/checking-or-really-checking>



ENSURE EVERY STUDENT HAS A BOARD AND PEN TO HAND



SET THE QUESTION WITH A GOAL AND A TIMEFRAME




BUILD IN THINKING TIME














SIGNAL: 3-2-1 AND SHOW ME



SAMPLE STUDENT RESPONSES AND FOLLOW UP

Questioning Strategies:	
Strategy 5.4: Say It Again Better.	
<p><u>Purpose:</u> To develop the standard for the depth of verbal responses and elicit high-quality responses.</p>	
<p><u>Description:</u></p> <p>Rather than accepting short, shallow responses with little development 'say it again better' ensures a higher standard for the depth of verbal responses and provides a structure to produce high-quality responses. Using this questioning strategy, you accept initial responses but develop them each time.</p>	
	<p>Core WalkThrus Link: Pages 98-99.</p> <p>Supporting Research: https://my.chartered.college/wp-content/uploads/2018/10/8-Say-It-Again-Better.pdf</p> <p>Oracy Policy.</p>

 <p>ASK A STUDENT A QUESTION</p>	 <p>ACKNOWLEDGE THE FIRST RESPONSE</p>	 <p>GIVE SUPPORTIVE FORMATIVE FEEDBACK</p>	 <p>INVITE STUDENT TO "SAY IT AGAIN BETTER"</p>	 <p>RESPOND TO THE IMPROVED RESPONSE</p>
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Questioning Strategies				
Strategy 5.5: Probing Questions				
<p><u>Purpose:</u> To allow students to probe their schema for the ideas being discussed and make greater connections in their learning.</p>				
<p><u>Description:</u></p> <p>Well-chosen probing questions can support students to make links between ideas, to rehearse explanations to support long-term memory retention and to identify knowledge gaps and misconceptions. As a clear questioning style, examples of probing questions include:</p> <p>What are the main reasons for this?</p> <p>Is that always true or just in this case?</p> <p>What would be the most important factor?</p>				
<p>Core WalkThrus Link: Supporting Research: https://www.educationcorner.com/types-of-questions-in-the-classroom/</p>				
 <p>ASK A STUDENT A QUESTION</p>	 <p>FOLLOW-UP WITH A PROBING QUESTION</p>	 <p>LISTEN AND PROBE FURTHER</p>	 <p>ASK ANOTHER STUDENT TO CONTINUE</p>	 <p>CHECK FOR UNDERSTANDING FROM OTHERS</p>

Questioning Strategies

Strategy 5.6: Process Questions

Purpose: To encourage metacognitive talk with a focus on the 'how do we know' and 'how do we work it out?'

Description:

With a focus on the questions of 'how do we know' and the 'how do we work it out?', modelling and dialogue around process questions supports students to develop independent thinking. This provides a focus on the 'how' and 'why' while asking pupils to explain their methods, ideas and choices.



Core WalkThrus Link: Pages 102-103.

Supporting Research: <https://www.educationcorner.com/types-of-questions-in-the-classroom/>



MODEL YOUR THINKING



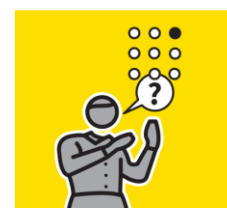
EMPHASISE HOW AND WHY



**ASK STUDENTS TO EXPLAIN
THEIR METHODS AND
REASONING**



**ASK STUDENTS TO EXPLAIN
THEIR IDEAS AND CHOICES**



**ASK HOW SIMILAR
ALTERNATIVE QUESTIONS
OR PROBLEMS MIGHT BE
APPROACHED**

6.) Feedback

(Rosenshine's Principles of Instruction: Daily Review and Weekly and Monthly Review).

Definition:

Feedback is the provision of information to the learner, given by a teacher or peer, with respect to the learner's performance relative to learning goals or outcomes. Feedback is crucial for letting pupils know the stage they're at with their learning, and the steps they need to take to move forward.

Theory and Research:

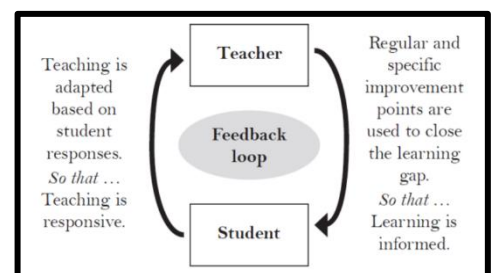
The Education Endowment Foundation [EEF] has conducted extensive research into feedback and found it to be a highly effective tool for increasing pupil progress. They found that effective feedback can enable primary school pupils to make, on average, an additional 7 months' progress. Low-attaining pupils also tend to benefit more from explicit feedback than high-attaining pupils.







John Hattie, in his 2008 book on best practice 'Visible Learning', identified that feedback was one of the 'top 5 to 10 most effective strategies in terms of the impact it had on students' learning'. As Hattie indicates within his research, 'feedback is one of the most powerful influences on learning and achievement, but this impact can be positive or negative'; in other words, as well as correcting misconceptions, feedback, if done without due diligence, can reinforce and consolidate errors, too. For feedback to be effective, it should provide clarity (by telling students where they are and what they must do to improve) and aim to increase effort and aspiration. Although teachers deliver feedback almost constantly as they teach, traditionally feedback on student work has been delivered primarily through 'written feedback' or 'marking'. In recent years, alternatives have been discussed with more focus on how rather than what feedback is given.


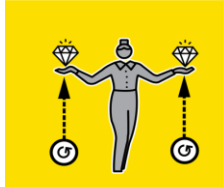




Implications for Teaching and Learning at Parish and St James:

In line with our 'Marking and Feedback Policy', our teachers carefully plan how to ensure feedback is meaningful, motivating and manageable. Staff recognise that feedback is a two-way process and the teacher should use the students' feedback to inform future teaching and learning. Our teachers also:

- Lay the foundations for effective feedback with high quality teaching, including formative assessment.
- Deliver appropriately timed feedback that focuses on moving learning forward with time for pupils to receive and use feedback.
- Carefully consider how to use purposeful, and time-efficient, written feedback and verbal feedback.



Feedback Strategies:	
Strategy 6.1: Feedback that Moves Forward.	
<p><u>Purpose:</u> To provide students with feedback that secures improvements in their retention of knowledge and quality of future work produced.</p>	
<p><u>Description:</u></p> <p>In order for feedback to be effective, it needs to be understood, accepted and actionable for the pupil to secure future improvements. Feedback must also be motivational to apply effort alongside specifics of the strategies that they need to employ. In line with our marking and feedback policy to support teacher workload, this feedback must be meaningful, manageable and motivating to focus on forward improvements.</p>	 <p>Core WalkThrus Link: Pages 104-105. Supporting Research: https://www.youtube.com/watch?v=BUPuNc6iYj8</p>
<div>  <p>FOCUS FORWARDS</p> </div> <div>  <p>KEEP IT POSITIVE AND SPECIFIC</p> </div> <div>  <p>MATCH THE MESSAGE TO THE STUDENT</p> </div> <div>  <p>AVOID SATNAV SYNDROME</p> </div> <div>  <p>REDUCE FEEDBACK OVER TIME</p> </div>	

Feedback Strategies:	
Strategy 6.2: Feedback as Actions	
<p><u>Purpose:</u> To frame feedback as an actionable instruction to do something.</p>	
<p><u>Description:</u></p> <p>In giving feedback as actions, students are being set a task that addresses their learning need with the feedback embedded in the selection of the task. You must choose whether to ask the pupil to do ONE of the following: redraft or re-do, rehearse or repeat, revisit and respond to more questions, re-learn material and re-test or research and record.</p>	 <p>Core WalkThrus Link: Pages 106-107. Supporting Research: https://teacherhead.com/2018/01/14/the-five-forms-of-feedback-i-give-to-teachers-most-often/</p>
<div>  <p>REDRAFT OR RE-DO</p> </div> <div>  <p>REHEARSE OR REPEAT</p> </div> <div>  <p>RE-TEACH</p> </div> <div>  <p>RE-LEARN MATERIAL AND RE-TEST</p> </div> <div>  <p>RESEARCH AND RECORD</p> </div>	

Feedback Strategies

Strategy 6.3: Whole Class Feedback

Purpose: To provide students with timely, detailed feedback provided to the class as a whole without detailed written feedback.

Description:

Whole class feedback replaces writing detailed individual comments in books. This allows the teacher to engage with the details of the work students produce rapidly, to inform a short, effective feedback and improvement cycle. The way this can be provided should note the strengths and areas for improvements with improvement time significant.



Core WalkThrus Link: Pages 108-109.

Supporting Research: <https://adam-robbins.com/2021/11/14/whole-class-feedback-making-the-juice-worth-the-squeeze/>
<https://researchschool.org.uk/huntington/news/whole-class-feedback-a-primary-case-study>



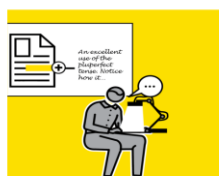
READ THROUGH STUDENTS' WORK



NOTE THE STRENGTHS



NOTE AREAS FOR IMPROVEMENT



GIVE THE FEEDBACK



GIVE IMPROVEMENT TIME

Appendix 1: Oracy Based Teaching and Learning Strategies:

Below are some of the Oracy strategies that drive the teaching and learning around our six core 'Pedagogical Principles'.

Discussion Guidelines and Listening Ladder:

Our discussion guidelines are a set of guidelines for partner and group discussion that help to maintain a safe, effective and respectful environment for talk. Alongside our 'Listening Ladder' and 'STAR learning behaviours', they support the creation of an effective environment for talk and age appropriate, adapted versions are clearly displayed and modelled within each classroom across school to create a consistency of approach.

Talk Tactics:

Talk tactics explicitly state the roles and appropriate sentence stems to support pupils of all ages and abilities to access partner or group discussion. Different roles can be assigned and are used to progressively develop talk across all year groups. There are both pupil and teacher talk tactics that harness a culture of high-quality talk across the classroom and throughout school.

Questioning:

Questions are differentiated by teachers to ensure full participation and that pupil discussions are scaffolded to ensure inclusive practice. Staff are trained in different types of questions and utilise different question types to enhance learning across different subjects.

Summarising the speaker's ideas
Asking questions that dig deeper
Asking questions to clarify understanding
Reacting and refocusing
Offering nods or short words of encouragement
Giving eye contact to the speaker
Being calm and still
Giving 100% of their focus to the person speaking

DISCUSSION GUIDELINES

WE GIVE PROOF OF LISTENING

WE RESPECT OTHERS' IDEAS

WE BUILD, CHALLENGE, SUMMARISE, CLARIFY, AND PROBE EACH OTHER'S IDEAS

WE ARE PREPARED TO CHANGE OUR MIND

WE INVITE OTHERS INTO OUR DISCUSSION

WE TRY TO REACH A SHARED AGREEMENT

Talk Tactics Talk tactics encourage students to think strategically about their contributions to group talk

Instigate <small>Present an idea or open up a new line of enquiry</small> Start by saying: - I would like to start by saying... - I think... - We haven't yet talked about...	Probe <small>Dig deeper, ask for evidence or justification of ideas</small> Start by saying: - Why do you think...? - What evidence do you have to support X idea? - Could you provide an example?	Challenge <small>Disagree or present an alternative argument</small> Start by saying: - I disagree because... - To challenge you X, I think... - I understand your point of view, but have you thought about...?
Clarify <small>Asking questions to make things clearer and check your understanding</small> Start by saying: - So are you saying...? - Does that mean...? - Can you clarify what you mean by?	Summarise <small>Identify and recap the main ideas</small> Start by saying: - So far we have talked about... - The main points raised today were... - Our discussion focused on...	Build <small>Develop, add to or elaborate on an idea</small> Start by saying: - Building on X's idea... - I agree and would like to add... - X's idea made me think...

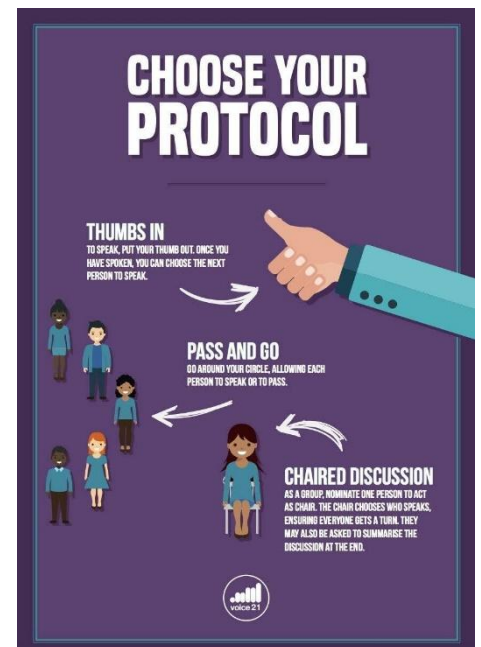
Factual questions	A single right answer
Reasoning questions	Draw on logical or sequential thought
Open questions	No anticipated right answer
Social questions	Invite children to share experiences or enable teacher to control the class

Talk Protocols:

Talk Protocols allow pupils to self-govern talk and move on their own discussion with increasing articulacy.

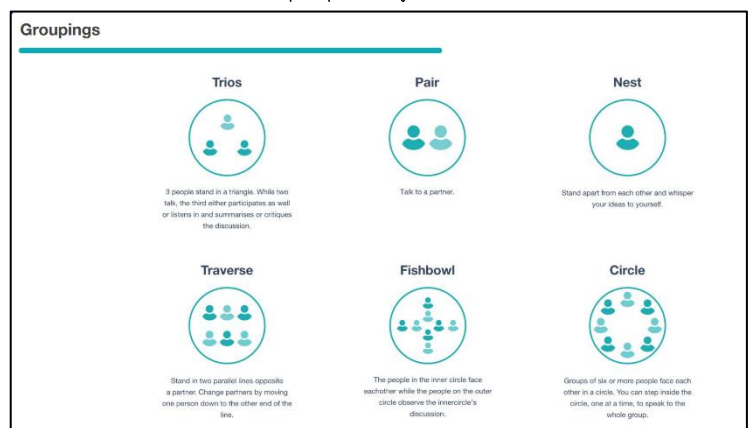
Talk Detectives:

Metacognitive thinking in oracy is useful to employ oracy-specific models for feedback and reflection. These can develop students' understanding of the unconscious processes underlying talk, as well as reinforce the shared language for oracy you are developing in the classroom. 'Talk Detectives' allow students to step out of a discussion and recognise which oracy skills are being used and if discussion guidelines are being followed. The talk detectives sneak around the classroom eavesdropping on the discussions going on and noting the things they hear to offer feedback to the class.



Groupings

Groupings support talk for different purposes. Groupings are chosen to suit the purpose of a discussion and also the number of pupils involved. In smaller groups, students will have more opportunities to share their ideas than during whole class discussion. When good habits for talk are well-established, larger groups provide opportunities for students to interact with more ideas, carefully navigating the expectations for talk in a more complex situation.




Fed-In-Facts:

Rather than solely dialogic teaching, 'fed-in facts' allow children to use oracy to harness their own learning. Instead of feeding in 'facts' on pieces of paper for students to read, you could feed different pictures or objects into the discussion. For example, if students are discussing what the setting for a story could be, you could feed in different items related to different settings to inspire them. Similarly, to work on inference skills when discussing a particular book, you could feed in different pictures or objects related to the story with overarching questions to discuss. For example, how could the characters in the story have used these objects? How might they have helped them? In Mathematics, present students with a simple equation (for example, $1 + _ = 4$). Then feed in different concrete manipulatives and ask students to discuss how a particular resource could be used to solve the equation, stopping regularly to share different groups' ideas with the whole class. There are many different ways that 'fed-in facts' could be used in Key Stage 2. In Science, students could be provided with a diagram of the human eye, before clues being fed in with descriptors of different parts of the eye and their functions.

Appendix 2: Our Standardised Lesson Format – A ‘Learning Quest’:

A Learning Quest




Question to answer.

Understanding previous learning.

Explore new knowledge and vocabulary.

Student practise.


Talk, test, tell.



Applying Rosenshine's Principle of Instruction:


Understanding previous learning.

1 Daily review




Daily review is important in helping to resurface prior learning from the last lesson. Let's not be surprised that students don't immediately remember everything. They won't! It's a powerful technique for building fluency and confidence and it's especially important if we're about to introduce new learning – to activate relevant prior learning in working memory.

2 Weekly and monthly review




Talk, test, tell.

3 Ask questions




The main message I always stress is summarised in the mantra: ask more questions to more students in more depth. Rosenshine gives lots of great examples of the types of questions teachers can ask. He also reinforces the importance of process questions. We need ask how students worked things out, not just get answers. He is also really good on stressing that asking questions is about getting feedback to us as teachers about how well we've taught the material and about the need to check understanding to ensure misconceptions are flushed out and tackled.

4 Check for student understanding




Explore new knowledge and vocabulary.

1 Present new material using small steps




Small steps – with practice at each stage. We need to break down our concepts and procedures (like multi-stage maths problems or writing) into small steps so that each can be practised.
Models – including the importance of the worked-example effect to reduce cognitive load. We need to give many worked examples, too often teachers give too few.

2 Provide models




Scaffolding is needed to develop expertise – a form of mastery coaching, where cognitive supports are given – such as how to structure extended writing – but they are gradually withdrawn. The sequencing is key. Stabilisers on a bike are really powerful aids to the learning and confidence building – but eventually they need to come off.

3 Provide scaffolds for difficult tasks




Student practise.

1 Guide student practice




Teachers need to be up close to students' initial attempts, making sure that they are building confidence and not making too many errors. This is a common weakness with 'less effective teachers'. Guided practice requires close supervision and feedback.
High success rate – at questioning and practice – is important. Rosenshine suggests the optimum is 80%. (i.e. high! Not 95-100% (too easy). He even suggests 70% is too low.

2 Obtain a high success rate



3 Independent practice



Independent, monitored practice. Successful teachers make time for students to do the things they've been taught, by themselves, when they're ready. "Students need extensive, successful, independent practice in order for skills and knowledge to become automatic."

Appendix 3: Teaching and Learning Strategies to Develop Vocabulary

The Word Aware Approach to Effectively Teaching Vocabulary:

[Stephen Parsons and Anna Branagan, 2021].

Make Words Count (children surrounded by spoken and written words and inspired to learn them).

Teaching Vocabulary (introduce new words from content-rich subjects as well as teaching words sourced from books).

Theory of Teaching New Vocabulary (STAR – select, teach, activate, review). [Blachowicz and Fisher, 2010]

<u>Tier 1 Vocabulary:</u>	<u>Tier 2 Vocabulary:</u>	<u>Tier 3 Vocabulary:</u>
Students have a thorough understanding of these words, everyday spoken language for a child of this age. Used at home and in daily interactions. Children may have become familiar with language through school.	Really useful words. Likely to be encountered again in reading and in oral language. Average adult has a good level of knowledge of the words. Words that are very topic specific but core to the topic. Desirable for students in KS2 to use in their writing.	Less likely to be encountered in reading or in oral language. Average adult does not have much knowledge of the word. Words are particularly topic specific and not core to the topic. Not a prerequisite for students in KS2 to use in their writing.
Should be common knowledge. However, if needed, provide small group teaching or pre-teaching to understand. Will develop over time.	Words taught to the whole class – select one per lesson. Therefore, a six-week topic should only have up to six new tier 2 words. Always introduce words concept at a time – never teach opposites in the same lesson.	Briefly explained but be otherwise ignored. Important for comprehension and understanding.

How to Teach Tier 2 Vocabulary

All components below are taught within each lesson delivered during the ‘Explore New Knowledge and Vocabulary’ part of our Learning Quest. Approximately 5 minutes).

<p><u>Step 2</u> <u>[Word Wizard]</u></p>	<u>Symbol</u>	Use a picture/symbol that represents the word.
	<u>Phonology</u>	Do as many as possible (clap syllables, rhyme, initial sound or say to partner).
	<u>Semantics</u>	Discuss the meaning, encouraging contributions about the word’s meaning. A teacher then adds child friendly information about the word. Possibly use anchor words to explain the meaning of the Tier 2 words.
	<u>Sentence</u>	Children use the word in a meaningful sentence.
	<u>Action</u>	Act it out (where possible).
	<u>Song</u>	Use the song or rap to reinforce the word.

<u>Step 3</u>	<u>Working Word Wall</u>	Add the word (and a picture if possible) to our 'Building Vocabulary' wall to prompt immediate recall. Do this live in the lesson.
<u>Step 4</u>	<u>Word Pot</u>	The word goes into the word pot for reviewing in the future.

QUEST Approach to Teaching and Learning – Incorporating Vocabulary:

E – Explore New Vocabulary and Knowledge (Discretely Teach New Vocabulary):

- 1.) Choose one piece of Tier 2 vocabulary per lesson – no more.
- 2.) Use the word wizard template (on the screen) in the exploring new knowledge and skills of our QUEST approach to discretely teach the new piece of vocabulary.
- 3.) Add word to the 'Building Vocabulary Wall' live in the lesson for immediate recall during the unit.
- 4.) Add to your word bucket (child-led if possible) to support wider retrieval in the future.

S – Student Practise (By Activating New Vocabulary Throughout the Lesson):

- 1.) Ensure the word is visible on the 'Building Vocabulary Wall' and highlight this throughout the lesson.
- 2.) Use the target word in different contexts as much as possible and ensure it is naturally used throughout the lesson. Link the word to the task selected.
- 3.) Prompt the children to use the word and give feedback on their efforts.
- 4.) Use the words in independent writing. A word mat could be used to support this.

T – Talk, Test, Tell (Short-Term Review):

- 1.) Reviewing the word is important as it exposes children to the word again.
- 2.) Review at the end of the lesson. Use prompts such as "During the lesson what did you learn about the word? When do you think you might use this again Tell the person next to you how to remember the word."
- 3.) Target the words on the 'Building Vocabulary Wall'.

Long-Term Review/Retrieval:

- 1.) Working Word Wall Games (Play games such as 'Word Wall Say it In a Sentence' and challenge groups of children to come up with sentences that contain words from the Working Word Wall. Pg. 141)
- 2.) Word Pot (Take words out of the word pot and discuss them with the class. Use prompt cards on pg. 138)
- 3.) Word Workshop (Have a discrete session, such as Parish Skills, where you have fun with words. Incorporate words that have recently been learnt and give the children the opportunity to review them and learn more) pg 136).
- 4.) Games (Use games to give the children the opportunity to independently reinforce their word learning).
- 5.) Home Study (Expose children to the target word again in a different context, the meaning of each word will be extended. Write words on a sticker or send the words home for children to stick on their fridge).












Appendix 4: Quality First Teaching Overview



Quality First Teaching Toolkit

It is intended that this toolkit be distributed to all class teachers. It should be utilised to promote high quality teaching strategies to support pupils. If this guide is used to support an individual pupil it is important that the Strategies for All Learners section is used either in isolation or alongside the strategies for other areas of need. The areas of need pages should **not** be used in isolation as any strategies duplicated across areas of need have been removed and placed within the Strategies for All Learners. It is not anticipated that this document should be used as a whole, rather that professionals should select the most appropriate pages to support their teaching. This should be a working document and ideally should be used electronically to allow notes to be made clearly.

User guidance

	Traffic lights to demonstrate the impact of the strategy (those using electronically may want to just highlight the box to the appropriate colour)	
<u>Page Borders</u>		
	Strategies for All Learners	
	Cognition and Learning (CL)	
	Communication and Interaction (CI)	
	Social, Emotional and Mental Health Difficulties (SEMH)	
	Sensory and/or Physical Needs (SPN) <ul style="list-style-type: none">• Co-ordination• Visual Difficulties• Hearing Difficulties	
	Maths	
<u>Strategy Bullet Points</u>		
	Teaching and Delivery	 Resources/ Adaptations
	Presentational Features	 Recording

Appendix 5: Glossary of Key Terminology (Kate Jones – Evidenced Informed Practice):

- **Asynchronous Instruction** – Asynchronous teaching and learning refers to all students learning, but not at the same place or same time. For example class work set on the Google Classroom for students to complete and they will do so at different times and from different locations.
- **Automaticity** – This is when we do something so often that it becomes automatic, also known as ‘auto-pilot’. There are many scenarios, both inside and outside of the classroom, where this can happen and it will therefore reduce the cognitive load on working memory.
- **Blocking** – This is when subject content or taught material is revised in specific blocks, one after the other. The opposite of blocking is interleaving (see below) and isn’t as effective.
- **Brain dump** – This is a low effort, high impact teaching and learning strategy. Students simply have to write down from memory what they can recall about a specific topic/unit as instructed by the teacher.
- **Blended learning** – This also known as hybrid learning, which can contain elements of live teaching from the classroom and online learning. In my current school all lessons are delivered in the physical classroom with some students attending the lesson and others attending via Zoom remotely.
- **Chunking** – Grouping information into more manageable sections, categories or chunks to support the limitations of working memory.
- **Cognitive Biases** – When people search or interpret research, evidence and/or information that supports their pre-existing beliefs.
- **Cognitive Load** – If we present our students with too much new information, all at once, this will lead to information overload in working memory. It is important for teachers to be aware of this when planning and delivering lessons.
- **Cognitive Load Theory** – Professor John Sweller has written extensively about cognitive load and this refers to his work described by Dylan Wiliam (2017) as ‘the single most important thing for teachers to know’.
- **Cognitive Science** – The scientific study of the human mind.
- **Cognitive Psychology** – The study of specific mental processes such as attention, encoding, memory, perception, problem solving, and thinking.
- **Concrete examples** – Using specific examples to help understand abstract ideas and concepts.
- **Confirmation Bias** – When people search for research, evidence and information to support their own beliefs and ideas or interpret information to suit and match their

beliefs.

- **Control group** - When conducting research, some studies like to compare an intervention group (where something has been changed or added) to a control group (where everything stays the same). This allows us to compare the differences.
- **Curriculum** - This refers to the subjects, topics, content, skills and experiences that are taught in a school.
- **Declarative memory** - A type of long term memory, also known as explicit memory. Information recalled from declarative memory involves conscious effort to bring it to mind unlike procedural memory (see below).
- **Desirable difficulties** - This is a term coined by Professor Robert A Bjork and Professor Elizabeth Bjork. A desirable level of challenge and difficulty must be something that students can overcome with increased effort. '*The Goldilocks Principle*' - we don't want tasks to be too easy, too difficult but instead desirably difficult!
- **Distributed practice** - This is when students do little amounts regularly (i.e. one hour a day for six days) as opposed to a lot all at once (i.e. six hours in one day). Distributed practice tends to be more effective for long term memory and is also known as spacing.
- **Direct instruction** - In academic literature there have been various definitions and interpretations of direct instruction. To generalise, it is academic instruction that is led by the teacher in the classroom.
- **Dual Coding** - Providing information in two different formats, eg visual aids and text, to be transferred through two different channels to memory.
- **Dunning Kruger effect** - This is a cognitive bias where people with low ability can overestimate their ability, believing themselves to be more intelligent and capable than they actually are!
- **Effect size** - This is most commonly associated with the work of Professor John Hattie and quite simply measures the impact of educational initiatives on achievement and outcomes.
- **Elaboration/ Elaborative interrogation** - By having students ask themselves questions (i.e 'How? Why? When?') it encourages them to think deeper and make connections to what they already know.
- **Encoding** - This is the act of processing information and this is the first process of memory when trying to learn new material. Information needs to be transferred so that it can be stored, then later retrieved.
- **Episodic memories** - If we think back to our own school days we have distinct personal memories, these can include our first day at school, performing in concerts, participating in sports days or receiving examination results. We can remember who we were with, what happened and how we felt. These are episodic memories.

- **Evidence – based** – This is an approach to practice that focuses attention on empirical evidence in professional decision making and action. Schools and teachers often refer to themselves as evidence based, as they base their classroom practice and approaches on an evidence base.
- **Evidence – informed** – Similar to evidence-based but evidence-informed practice recognises that it is more challenging to determine the circumstances and conditions where the evidence works best. It is about applying evidence in the unique context of our classrooms and contexts. For this reason, I consider myself to be evidence-informed rather than evidence-based.
- **Extraneous load** – The third type of cognitive load according to Sweller (see intrinsic and germane load). This occurs when students are exposed to irrelevant information that requires extra mental processing, this is negative and linked to the redundancy effect (see below).
- **Forgetting Curve** – Based on the work of German psychologist Hermann Ebbinghaus, where he was able to illustrate how memory decays over time. If we learn new information but don't attempt to relearn or refresh that information then it can very quickly be forgotten.
- **Formative assessment** – The aim of formative assessment is to monitor student learning and progress in order to provide ongoing feedback, instructions and support.
- **Free recall** – This is the act of retrieval practice without any scaffolding, support or prompts (see brain dump above as an example of this).
- **Germane load** – This is the second type of cognitive load according to Sweller (the first is intrinsic, see below). This is the process where information becomes stored in long term memory through tasks designed by the teacher to rehearse and repeat exposure to material.
- **Hawthorne effect** – When people are involved in a study or experiment and they attempt to change their behaviour because they are aware that they are being studied and evaluated.
- **Interleaving** – This is the mixing up of topics within a subject. Doing so helps students make connections between topics and think harder about what the appropriate strategy is for that topic.
- **Intrinsic load** – According to Sweller, this is a type of cognitive load, and intrinsic refers to the mental effort required to understand subject content. This is necessary.
- **Knowledge organiser** – A document that is created to support teachers and students with the essential elements of a unit; this can include key facts, dates, terminology, concepts and more. The aim is that a knowledge organiser provides a condensed but thorough overview.

- **Learning Objective/Intention/Outcome** - They describe and explain what it is we want the learners in our classroom to learn.
- **Long term memory** - Long term memory is incredibly powerful in terms of how much information can be stored (we do not know the limitations) and also the duration too.
- **Low stakes** - This refers to testing that is the opposite of high stakes - no or low pressure, no formal grading, not stressful but instead informal, regular and enjoyable.
- **Memory** - How our mind stores and organises information and experiences.
- **Metacognition** - An awareness and ability to critically monitor and evaluate the way we think and the progress we make.
- **Multi-store model of memory** - This is a model of memory by Atkinson & Shiffrin (1968) where they proposed memory consisted of three stores. The sensory register, where information is encoded and passed on to the second store, short term memory. Finally, if information is rehearsed and retained beyond short term memory it is then stored in the long term memory.
- **Neuroscience** - The study of the brain and the nervous system.
- **Peer review** - A rigorous process where literature, such as a research paper, is reviewed by experts in the same field to ensure high quality prior to publication.
- **Practitioner research** - This refers to research carried out by people working in that specific field, so for example teachers conducting research into education in the setting and context of their classroom. This in contrast to full time academics that conduct research to then share with others in that field.
- **Procedural memory** - A type of long term memory that we use on a daily basis, without consciously realising that we do because we know it so well and is linked to automacy.
- **Redundancy effect** - Coined by Peter Chandler and John Sweller, this occurs when students are presented with extra information that is not relevant to their learning. This can also occur when students are exposed to the same information in different formats and can overload their memory, for example a powerpoint slide that contains icons that linked to the subject content (something I have been very guilty of including previously!).
- **Remote learning** - Teaching and learning that takes places out of the physical classroom. This is not in reference to a homework task but instead teaching and learning online in the virtual classroom.
- **Research summary** - This is when a research paper or series of research papers, studies and/or journals are summarised in one shorter and concise document.
- **Responsive teaching** - Linked to formative assessment responsive teaching involves responding to students by asking questions, providing feedback and support all with the aim to support student progress with their learning.
- **Retrieval practice** - The act of recalling information from long term memory in order to

enhance and improve long term memory. This is a teaching and learning strategy, not an assessment strategy although high stakes testing does involve the act of recall.

- **Retrieval cues** - Cues and prompts to aid retrieval and recall. The prompts can include images, key terms or sentence starters. This makes the act of retrieval easier to do.
 - **Retrieval strength** - Retrieval strength refers to how accessible (or retrievable) information is, this is taken from the work of Bjork and Bjork (see New Theory of Disuse).
 - **Retrieval induced forgetting** - Retrieval-induced forgetting is a memory phenomenon where remembering specific information can lead to forgetting of other information in memory. To combat this we simply ensure that all of the essential information we want students to remember and not forget is tested regularly with retrieval practice.
 - **Rosenshine's Principles of Instruction** - This is based on the work of Barak Rosenshine. Rosenshine wrote about ten key principles that he argues underpin an effective approach to instruction in lessons. The principles include review, questioning and modelling.
 - **Schema** - This refers to how much we already know and how we explain the links between them.
 - **Semantic memory** - Our knowledge base or our own encyclopaedia of facts, information, words and concepts. Knowledge that Rome is the capital of Italy is semantic, my memories of eating gelato at the Trevi fountain as episodic.
 - **Short term memory** - This refers to immediate memory where storage is limited both in terms of capacity and duration. This term was more widely used before the introduction of the 'working memory' concept.
 - **Storage Strength** - Storage strength is how well learned something is, taken from the work of Bjork and Bjork (see New Theory of Disuse).
 - **Spaced practice** - See distributed practice above.
 - **Split attention effect** - This can occur when students have to refer to two different sources of information simultaneously whilst learning material. This adds extra load to the already limited working memory.
 - **Spotlight effect** - This is another cognitive bias where individuals believe other people notice their behaviour more than they likely do. In the classroom context this can prevent some students from engaging in discussions and answering questions.
 - **Success criteria** - The criteria that we use to support students during the teaching and learning process, as well to evaluate their performance and learning too.
- Summative assessment** - The aim of summative assessment is to evaluate student learning at the end of a unit, term, course or year.
- Synchronous instruction** - Synchronous teaching and learning refers to students all learning at the same time but not in the same place, for example a Zoom lesson where students are in different locations but learning at the same time.

- **Testing effect** - This is the term used in academic literature when referring to the benefits of self-testing/retrieval practice. Due to the negative connotations associated with testing and being high stakes the term retrieval practice is more commonly used as it is intended to be a regular low stakes teaching and learning strategy.
- **TPACCK model** - I developed the TPACCK model (2019), previously known as the PCK model (1986) then TPACK model (2007), from the work of Arthur Schulman, Punya Mishra and Matthew J Koehler. TPACCK explains how teachers need to have strong knowledge and confidence in the following areas; technology, cognitive science, content (subject material) and pedagogy.
- **Transfer** - This is the application of learned information, concepts or materials to a new/different context, also known as the transfer of learning.
- **Working memory** - Both short term and working memory refer to immediate memory, being limited in both duration and capacity; how much information can be held and for how long. Working memory is a term coined by Baddley and Hitch as they believed the concept of short-term memory was too simplistic.