Lady Katherine Leveson CE Primary School

‘Joy to the World’

Teaching & Learning Policy

March 2021

Approved by LAB: March 2021

Next review due: March 2024

1. Vision

'Joy to the World'

[i]Make a joyful noise to the LORD, all the earth; break forth into joyous song and sing praises!' Psalm 98:4
Celebrating together the richness and diversity of life throughout the world; global citizens within our community and beyond.

2. Values

Compassion	Reconciliation	Friendship	Joy	Community	Stewardship	Respect

We value all of our children for who they are and for the talents and interests they bring with them. Our school values are the cornerstones for our vision, helping us to nurture and develop our pupils as lifelong learners and good citizens, who will contribute to making strong communities and a better world.

3. Rationale for our Teaching and Learning Policy

This document is a statement of the aims, principles and strategies for teaching and learning at Lady Katherine Leveson CE Primary School. It is the method through which we offer a rigorous knowledge-led curriculum and its implementation is the responsibility of all the members of the school community. The aim of this document is to help the teachers in the school become the most effective practitioners they can be by using principles established from research, cognitive science and experience. The impact of quality teaching and learning is the progress pupils make and the outcomes they achieve.

4. Aims

Through our teaching, we aim to:

- achieve deep understanding, by helping children connect new knowledge with existing knowledge so they are fluent and unconsciously competent at applying their knowledge as skills
- secure knowledge into long-term memory
- develop secure schema with connected networks of ideas
- develop a joy of learning and equip children with knowledge and cultural capital that they need to succeed in life
- give all pupils access to the best that has been thought and said and engender an appreciation of human achievement
- provide exceptional Arts provision so that every child learns to play an instrument, create art, perform a dance and appreciate human creativity
- enable children to become confident and interested learners, actively engaged in their own learning and with skills to collaborate with others
- develop children's self-respect and respect for the cultures and values of others

5. Strategies for Teaching and Learning

We advocate research-based principles of instruction that are 'faithfully' adopted and 'intelligently' adapted from research in cognitive science, research on master teachers and research on cognitive supports. The sources of these principles are referenced and found in the bibliography. We encourage all teachers to read these to develop their knowledge and understanding of the art of teaching. Teaching at Lady Katherine Leveson CE Primary School should be guided be these principles.

Barak Rosenshine's Primciples of instruction

1. **Begin a lesson with a short review of previous learning (Reactivation)**
This might be a review of vocabulary, events or a previously learned concept or additional practice to learn facts and skills where overlearning is required to develop automatic recall. Effective teachers review knowledge that is essential for the lesson. At Lady Katherine, some teachers use multiple-choice quizzes, timed tests, counting activities or review knowledge organisers.

2. **Present new material in small steps with pupil practice after each step: Only present small amounts of new material at any one time, and then assist pupils as they practice this material**
Our working memory can only hold a few bits of information at once - too much information swamps the working memory. The most effective teachers present only small amounts of new material at one time, and they teach in such a way that each point is mastered before the next point is introduced. They check pupil's understanding on each point and reteach when necessary. In a study, the most effective teachers spent about 23 minutes of a 40-minute lesson in teaching, demonstration, questioning and worked examples. In contrast, the least effective spent only 11 minutes presenting new material. The most effective teachers use this extra time to provide additional explanations, check for understanding and provide sufficient instructions so pupils can learn to work independently without difficulty. The less effective teachers in the study gave much shorter explanations, and then passed out activities and were then observed going from pupil to pupil having to explain the material again.

3. **Ask a LARGE number of questions and check the responses of ALL pupils: Questions help pupils practice new information and connect new material to their prior learning**
Questions provide necessary practice and allow a teacher to determine how well material has been learned and whether there is a need for additional instruction. This can also help to uncover misconceptions. Teachers at Lady Katherine also ask pupils to explain the process they used to find the answer. Teachers might ask pupils to:
- Tell the answer to a neighbour;
- Summarise the main idea in one or two sentences or repeat the procedures to a neighbour;
- Write the answer on a mini-whiteboard and hold it up;
- Explain how you worked out the answer;
- Raise hands or raise hands if they agree with an answer someone else has given.

4. **Provide models: Providing pupils with models and worked examples can help them learn to solve problems faster**
Teacher modelling and thinking aloud while demonstrating how to solve a problem are examples of cognitive support. A worked example is a step-by-step demonstration of how to solve a problem or how to perform a task. The presentation of worked examples begins with the teacher modelling and explaining the steps that can be taken to solve a specific problem. The teacher also identifies and explains the underlying principles for these steps.

5. **Guide pupil practice: Successful teachers spend more time guiding pupils' practice of new material**
After presentation of new material, the most successful teachers guide pupil practice. This might consist of the teacher working the first problems on the whiteboard, serving as a model for pupils. It could include a visualizer being used to demonstrate or a pupil working out a problem on the board. This provides additional models, more time for checking for understanding, asking questions and correcting errors and more time having pupils work out problems with teacher guidance. Pupils are then better prepared for independent work. Some pupils might receive further guided practice as part of a masterclass or guided group.

6. **Check for pupil understanding: Checking for pupil understanding at each point can help pupils learn the material with fewer errors**
Effective teachers frequently check to see if all pupils are learning the new material. They check for understanding by asking questions, by asking pupils to summarise the presentation up to that point, or to repeat directions or procedures. This helps pupils to make connections with other learning in their long-term memory and to alert the teacher to when parts of the material need to be retaught. A less effective teacher might simply ask "Are there any questions?" Other ways to check for understanding are to ask pupils to think aloud while completing tasks or to explain or defend their position to others. This can help to limit misconceptions. The wrong way to check for understanding is to ask only a few questions, call on volunteers to hear their (usually correct) answers, and then assume that all of the class either understands or has now learned from hearing the volunteers' responses. Another error (particularly with older children) is to assume that it is not necessary to check for understanding, and that simply repeating the points will be sufficient.

7. **Obtain a high success rate: It is important for pupils to achieve a high success rate during classroom instruction**
Research suggests that the optimal success rate to be about 80% - as judged by oral responses during guided practice and individual work. It shows that pupils are learning the material and that they are being challenged.

8. **Provide scaffolds: The teacher provides pupils with temporary supports and scaffolds to assist them**
Scaffolds are a form of guided practice. They include modelling the steps by the teacher or tools, such as cue cards, word banks, checklists to guide or evaluate their work, or a model of the completed task against which the pupil can compare their work. Others may be in the form of prompts – such as question stems to help pupils ask questions while they read or the opportunity to ask the teacher to think aloud when solving a problem. Teachers should carefully consider who needs what type of scaffold, rather than regularly provide the same scaffold to all.

9. **Require and monitor independent practice: Pupils need extensive, successful practice in order for skills and knowledge to become automatic and embedded in long-term memory**
Independent practice is necessary because a good deal of practice (overlearning) is needed in order to become fluent and automatic in the recall of knowledge or a skill. Independent practice should involve the same material as the guided practice and pupils should be fully prepared. Research shows that pupils were more engaged when their teacher circulated the room, and monitored their individual work – the optimal time for these contacts was 30 seconds or less. Cooperative learning can increase achievement if it provides extra instruction through someone else (the other pupil) explaining the material to the pupil.

10. **Engage pupils in weekly and monthly review: Pupils need to be involved in extensive practice in order to develop well-connected automatic knowledge**
Pupils need extensive and broad reading and extensive practice in order to develop well-connected networks of ideas (schema) in their long-term memory. When one's knowledge on a particular topic is large and well-connected, it is easier to learn new information and prior knowledge is more readily available for use. For this reason, we employ weekly reviews in mathematics, opportunities to retrieve knowledge at the start of lessons, weekly reviews as part of homework, knowledge organisers for revision and end of unit assessments.

These principles are presented in the Appendix B in a thematic interpretation suitable as a reminder or for display.

Retrieval Practice

At Lady Katherine, teaching is designed to help learners to remember in the long term the content they have been taught and to integrate new knowledge into larger concepts. We use retrieval practice methods as described above routinely. We aim for pupils to remember all that is on the knowledge organisers and in the curriculum - without need to refer to learning aids, knowledge organisers or other reference material. Pupils should learn strategies for revision, including self-quizzing and elaboration. For optimal retrieval practice, teachers must space out the practice – rather than cramming. Memory is more enduring when practice is spaced out as pupils need to forget a little to benefit from spaced practice. Robert Bjork discusses the long-term benfits of interleaving practice in this presentation: robert bjork - the benefits of interleaving practice - YouTube

6. Classroom talk and questioning

The central mechanism in effective classroom talk is good use of questioning. Good teachers ask a large number of questions and both closed and open questions play an important role. While we should make deep knowledge the goal, shallow knowledge will always come first and without closed questions to check it, there is no point moving on to deeper concepts.

Cold Calling: (Based on Lemov, TLAC)
Principle: All pupils should be involved in engaging with the teacher-pupil dialogue with time to think, and not be allowed to hide, dominate or be overlooked.
Practice: No hands up. Teachers ask questions and then select pupils to respond based on their knowledge of the class, avoiding the pitfalls of hands-up or calling out. This is an inclusive process that involves all pupils, front, back, in the corners, shy, confident…everyone. It's not a one-off strategy; it should be routine and the default mode for most questions. It does not require the use of lollipop sticks.

No Opt-Out: (Based on Lemov, TLAC)
Principle: Pupils should feel safe in answering when unsure but, if they don't know or get things wrong, they should be given the opportunity to gain confidence by consolidating correct or secure answers. Also, pupils should not be allowed to opt out by saying 'I don't know'.
Practice: If a pupil or several pupils get an answer completely or partially wrong or they say they don't know, move to other pupils or provide the correct answer. But then go back to all those pupils who made errors or couldn't answer giving them a chance to now say the right answer. This gives them an opportunity for practice but if done routinely, it also means that pupils soon learn there is no value if offering 'I don't know' as a defence, in the hope of being left alone. Highly effective teachers maintain an expectation that it's not OK not to try. They eliminate the option for pupils of opting out: muttering 'I don't know' or shrugging impassively when asked a question. There are six basic strategies for responding to pupils who get the answer wrong or cannot provide an answer.

1. You provide the answer; the pupil repeats the answer.
Teacher: What's the subject of this sentence, Ryan?
Ryan: Happy.
Teacher: Ryan, the subject is mother. Now you tell me. What's the subject?
Ryan: The subject is mother.
Teacher: Good, Ryan. The subject is mother.

2. Another pupil provides the answer; the initial pupil repeats the answer. A variation is to ask the whole class.

3. After the pupil answers incorrectly, you provide a cue the pupil uses it to find the answer. Teacher: When I ask for the subject, I am asking for who or what the sentence is about. Now, Ryan, see if that can help you find the subject.

4. Another pupil provides a cue, the initial pupil uses it to find the answer.

5. Another pupil provides the answer, the initial pupil repeats the answer and is then asked a question to apply this knowledge. This gives extra practice and also shows that the success was no fluke.

Teacher: Can you also tell me the subject of the next sentence?

Checking for Understanding:
Principle:
As explained through Rosenshine's 3rd principle, teachers should not assume that knowledge aired and shared in the public space of the classroom has been absorbed. It's necessary to check for understanding from pupils to determine whether they understood what you meant.
Practice:
After any exposition or question exchange with a particular pupil, ask a number of others to relay back what they have understood. Even if they are answering a question that someone else has already answered, it's valuable for others to be given a chance to offer their version, showing what they have understood and, in so doing, giving the teacher feedback about how successful the teaching has been. It's especially powerful to ask multiple pupils, often yielding various different responses which throw up subtle points for further teaching.

Probing:
Principle: In order to explore a pupils' schema in any depth, you need to ask them several questions; asking several pupils one question each provides shallow responses compared to when each pupil has to provided multiple responses.
Practice: Aim to try 3-5 questions before moving on, probing for understanding, checking for misconceptions, adding extra challenge, providing scaffolding to engineer success.

Say it again, better:
Principle: It's normal for first responses to be half-formed as pupils think aloud and formulate ideas. A second opportunity to respond allows them to finesse their answers, adding depth, accuracy and sophistication. It's important not to inhibit pupils when they are unsure; it's also important not to allow them to assume mediocre answers are good enough.
Practice: When pupils offer a short, half-formed of partially incorrect answers, say, 'thanks, that's interesting….now say it again better. Try again but make sure you add in X and link it to idea Y' giving them an immediate opportunity to give an improved response. Modelling this for pupils is vital.

Think, Pair, Share:
Principle: In pairs, all pupils have space to think, to air their initial thoughts, to confess their lack of knowledge and to prepare to give good answers, to rehearse. They are all involved and subsequent discussions then have lots of material to explore. It prevents 'blood out of stone' silences inhibiting discussion and it prevents 'forest of hands' or calling out cultures taking hold.
Practice: Give the class a specific time-cued task – e.g. to decide on four main points in order of importance, in three minutes – get them all talking in pairs, with a reminder at after half the time has elapsed to allow their partner to talk, and then, on time, bring them back together with a signal. Then engage in probing, cold call questioning asking them to report back what their three points were.

Whole-Class Response:
Principle: Sometimes it is useful or even essential to get a response from every single pupil at the same time. This provides quick feedback to you as the teacher about the success of the relevant teaching and learning exchanges, identifies individuals who need further input and can help direct subsequent questions or exercises as you respond to the feedback you gain.
Practice: Mini-whiteboards are quick and allow for responses to multiple-choice questions as well as practice sentences, calculations and diagrams. Set the question, give some response time and then, on cue ….3,2,1 Show Me…. pupils show their answers at once. A simple A, B, C, D = 1,2,3,4 show of fingers also works very well for multiple-choice. It's vital to engage with the responses and then to adjust your teaching accordingly, consolidating, re-explaining or moving on as appropriate

7. Working Memory and Cognitive Load Theory

Dylan William has described cognitive load theory as 'the single most important thing for teachers to know'. Grounded in a robust evidence base, cognitive load theory provides support for explicit models of instruction. The human brain can only process a small amount of new information at once, but it can process very large amounts of stored information. Information is processed in the working memory, where small amounts of information are stored for a very short time. The average person can only hold about four 'chunks' of information in their working memory at one time[7]. The findings from this research lead to a number of implications for classroom practice:

1. Tailor lessons according to pupils' existing knowledge and skill and use worked examples
When teaching new content to pupils without much pre-existing knowledge, teachers should provide pupils with lots of detailed, fully guided instruction and worked examples (this is a problem or task already solved or completed with every step fully explained). As the pupils' knowledge and skill increases, teachers should provide a mix of guided instruction and problem-solving practice.

2. **Gradually increase independent problem-solving as pupils become more proficient**
Finally, as pupils become very proficient, teachers should provide minimal guidance and allow pupils to practise their skills with lots of problem-solving tasks. Some pupils will progress to independent problem-solving faster than others. To provide a need for greater independence, teachers will omit steps from a worked example or gradually give pupils fewer worked examples.

3. **Cut out inessential information**
Pupils do not learn effectively when their attention is directed to inessential information. This could be in the content of the instruction or multimedia presentations. In this type of lesson, it is very common to use verbal explanations and written text at the same time. For example, the teacher might show their pupils a quote on a PowerPoint slide, and also read the quote aloud at the same time. But presenting the same information in two forms is redundant – pupils' working memories can become overloaded when they are required both to listen and to read at the same time. The best strategy to avoid overloading pupils' working memories is for the teacher to either read the text out loud (without presenting it on the slide), or allow the pupils to read it themselves – not both. It is still okay for the teacher to read the text out loud and present a relevant image or diagram on the PowerPoint slide at the same time. While providing the same information in both written and spoken forms can overload working memory, there are some strategies that can reduce the chance of this occurring:
- The material can be presented in small chunks. For example, instead of presenting a quote as one big block of text on a PowerPoint slide, the teacher could break the quote up into smaller sections of text across several slides.
- The pupils, rather than the teacher, can direct the pacing of the presentation. When pupils can take their own time to process the information on one slide before moving onto the next, they are more likely to be able to process the information.

4. **Simplify complex information by presenting it both orally and visually**
Pupils can process complex information more easily when it is presented in both oral and visual forms at the same time. When there are two or more sources of information that can only be understood in reference to each other, cognitive load can be managed by presenting information both orally and visually. This strategy increases the capacity of pupils' working memories, creating more mental space for learning. Accompany diagrams with narrated explanations, not written explanations. This is based on the theory of Dual Coding. Research has shown that pupils learn new words more effectively through visuals with verbal information rather than with just verbal.

8. Differentiation

Differentiation applies to the level of support and scaffolding learners need to reach common, aspirational goals. Not all learners learn things at the same-rate – some will need more help, more time or more guidance. In practical terms, differentiation involves setting the same learning objectives and planning different ways to support pupils to get there. Differentiation at Lady Katherine can involve:

1. **Setting common high-challenge learning objectives which are defined in detail, with success criteria**
Differentiation involves teachers sharing learning objectives and success criteria with children so that they can:
- assume greater responsibility for their own learning
- measure their own success and achievement
- identify more clearly their own learning needs
- assist the teacher in meeting those needs
- identify areas for improvement

2. **Scaffolding planned with guided practice leading to independent practice**
Scaffolding can of course be removed – it is a temporary support. Scaffolding could be in the form of distinct tasks or writing scaffolds for some pupils.

3. **Providing appropriate help, possibly with different but carefully selected resources**

4. **Providing distinct tasks**

5. **Embedded tiering**
This supports the organisation of a class where pupils progress at different rates, allowing everyone to find a suitable challenge level (seeking an optimal 80% success rate). Eg. Tricky/Trickier/Trickiest. Tricky being at age related expectations.

6. Different modes of questioning and feedback, tailored to push pupils forward from wherever they are.

9. Planning

We believe that everyone has the capacity to achieve success and that many children can become high-performers. For pupils to reach the highest standards they must all be taught how to do so and should learn that it is achieved through their own hard work and concentration, as well as great teaching.

When planning, teachers should consider the *Zone of Proximal Development, What is just beyond what my pupils know and can do?* This is to allow the creation of opportunities for pupils to think while respecting cognitive limits. Activities that require cognitive work that poses a moderate to high challenge should be planned for pupils to practise or apply their knowledge and understanding. Teachers should ensure they

are confident in their own subject knowledge, and their understanding of class texts before planning lessons.

Good planning is essential to effective Learning and Teaching. The school plans in different stages:

a. **Long Term Plans** show the sequence of learning and topics taught across each year throughout school.

b. **Medium Term Plans** show objectives for every subject for the year. They detail key activities and intended outcomes for each session, as well as assessment opportunities. Knowledge organisers are used to outline the key knowledge that pupils should be taught to recall in topics.

c. **Short Term Flips and Plans** are used each week to provide more detail to English and Maths lessons. Smart Notebook is used to produce a sequential journey of learning objectives, resources and teaching aids for Maths and Whole Class Reading. A separate weekly plan is produced for English.

d. **Experiences, trips and visits** are planned to add context and experience to a topic and are agreed by liaising with the Educational Visits Co-ordinator. Experiences outside of the classroom provide a wide array of benefits to pupils' education. These experiences have the most impact when pupils are well-prepared with the knowledge necessary to understand and appreciate the experience before the trip, and when time is given to reflecting on the experience through a follow-up lesson or activity, after the trip.

When planning work for children with special educational needs we use the information and targets set out in the child's Individual Education Plan (IEP). Please see SEND Policy.

Teachers should plan the content and delivery of the curriculum to their class during the preceding term. Teachers must ensure experiences, trips and visits are well planned to allow adequate time to book transport and to notify parents.

10. Evaluation and Assessment

At Lady Katherine, assessment is for and with pupils rather than 'done to' pupils. Good assessment and evaluation improves the quality of teaching and learning and as such is integral to the whole process. In conjunction with this policy please also read the Feedback and Marking Policy and the Assessment Policy. The school particularly values assessment as an on-going process and uses Assessment for Learning strategies. Assessment for Learning includes:

- Learning objectives and success criteria explained to pupils.
- Staff to encourage pupils to self-assess and peer assess their work against the LO.
- Edit and improve lessons in English to have a greater focus of exchanging outstanding work amongst pupils.
- Questioning to check for understanding
- Use of the plenary which should refer clearly to the learning objective. It should be an opportunity to reflect upon what has been learned and to revisit teaching points.

11. Effective Working with Learning Support Assistants

Learning Support Assistants should be informed of the specific needs of pupils and of medium term and weekly planning in order to understand the role they are to carry out. They must be given clear and explicit instructions as to the concepts, facts and information being taught and the intended learning outcomes. Where Learning Support Assistants are working with low attaining pupils, the focus should be on retaining access to the class teacher's input, by delivering brief but intensive support and structured interventions. The class teacher must mark work completed by low-attaining pupils who regularly work directly with a Learning Support Assistant. The class teacher should avoid making last-minute changes to the timetable when working with a Learning Support Assistant.

12. The Learning Environment

We strive to provide an environment which is orderly, stimulating and conducive to learning. The main purpose of displays is to value the work of pupils and scaffold the learning process and enable cognitive release. Therefore, every child should have written work on display. This written work should have been edited, improved and developed in order to reflect the highest standard. It should be without crossing out, spelling errors and reflect high standards of handwriting. Every half term, this written work is changed and the previous written work is put into the pupil's writing portfolio. Displays of pupils' work should be of a high standard, should be mounted, (cut using a paper trimmer) and labelled with the child's name. Worksheets should not be displayed. Avoid over use of laminated posters and signs printed off from commercial websites, such as Twinkl. Teachers update and change classroom displays regularly (at least each term) to reflect the needs of the pupils and the curriculum studied with explanatory labels. Open ended questions may be used to prompt thinking. No work should be stapled or taped to walls. Work should be limited largely to display boards. The current class text should be displayed and words displayed to develop pupils' vocabulary should be large enough to be read from any part of the room.

In classrooms, there should always be a Working Wall which is updated each week with current work in maths and English. A flipchart could be used for modelled writing and examples of calculations for the pupils to refer back to. Other displays should reflect subjects currently taught. Use display and resources to positively impact on learning; through consolidation/reminder of previous learning and introducing new information and knowledge.

Subject leaders should monitor classroom practice through:
- Photographic evidence
- Observations
- Learning walks

Subject Leaders will also organise equipment and resources in such a way that it is easily accessible and systematically arranged.

Displays in school usually fall into the following categories:

	The 3 'tions' of display
INFORMATION	- learning scaffolds e.g. text type features, aspects of grammar, visual aids, word banks - prompts regarding what pupils should do when they have finished a task - class charters, rules and rewards
CELEBRATION	We show our appreciation by publishing pupils' work: - appropriately mounted - including explanations /context for the work - questions - pupils' comments - photographs
INSPIRATION	May include: - a quote /thought for the week (this could be a whole school theme) - a visual conscience tunnel which relate to a topic covered in class - information centre which inspires a love of non-fiction reading and topics - displays of books to read for pleasure

All displays should reflect the school's high expectations and ambition for all. All displays should reflect the school's emphasis on ambitious vocabulary.

Seating

You must be able to justify the decisions you make about seating arrangements on educational grounds. All pupils must be able to see the front of the classroom easily and be in a position where they can comfortably write. Tables must be positioned so teachers can move around the classroom easily enough to review the work of all pupils. At least once in a half-term, pupils should swap who they sit next to. Teachers should consider when learning is better seated at tables and when on the carpet.

Different types of learning activity require different types and levels of interaction, behaviour and attention and therefore different layout of tables. Individual work in exercise books is best undertaken in a 'rows' type arrangement. Almost all children's attention to their individual work increases when they sit in pairs, or in configurations in which no one sits opposite them, as compared with group seating. Average gains of more than 30 percent are common. The children who benefit most are those who are the most distracted when sitting in a group: many double their time on-task. When undertaking individual work in a 'rows' type of arrangement, the variation between the most and the least attentive all but disappears: in group seating arrangements, the range is substantial.

The class should not be seated in ability tables and pupils should not feel that they are moving up or down based on where they sit. The problems with ability grouping are long established and focus on the fact that such descriptions are perceived as a permanent description of ability. Research evidence shows that pupils' image of themselves as learners is affected by ability grouping, and thus labelling and limiting achievement.

Tidiness

General tidiness throughout the school is the responsibility of everyone. Pupils should be trained to share this responsibility. Classrooms (and corridors) must be kept tidy and pupils should be trained to tidy up after themselves and take a pride in their classroom. Routines must be established early in the term to ensure that the floor, chairs and every desk are clear at the end of the school day of pens, books and other stationary to allow cleaners to clean effectively. The classroom must be tidy and should not have either a cluttered appearance or create too much visual 'noise'. Only keep resources that you need regularly. Teachers should allow enough time at the end of the day to tidy their classroom. Pupils' trays should be checked regularly to prevent the accumulation of paper and objects. Pupils who are found to be responsible for vandalism will be required, as far as possible, to make good any damage. Parents will be informed. Coats and P.E. kits will be kept on pegs. Each class should have monitors who ensure the corridors are tidy. Where pots are used in classrooms, they should be regularly tidied and only contain stationary needed for daily lessons. Desks should not be cluttered to allow adequate space for children to work. Pupils should be encouraged to keep outside areas litter-free by using the bins provided.

13. Knowledge Organisers

Knowledge organisers capture the key information, terminology, and dates or quotes for a topic. The information on the knowledge organiser is the minimum that needs to be known, rehearsed and stored over time in the long-term memory, in order for pupils to become fluent in the material. It is a given that plenty of other technical vocabulary and facts will be encountered and learnt through the topic.

Pupils benefit from knowing up front that the knowledge organiser contains the essential information they need to know in order to succeed. Pupils are not expected to know the content from the start, but incrementally over time. This is done by setting some information to be learnt through retrieval practice for homework, revisiting in class and low stakes testing or quizzing. It is fine for pupils to make mistakes as the act of revising and checking for the correct answer deepens learning. Pupils benefit from the 'testing

effect', which is the finding that there are gains in long-term memory and retention of knowledge by active retrieval through testing.

If the quizzes are given on a regular basis, pupils will be able to see the progress they have made, over time. This is satisfying and rewarding for pupils, helps to build confidence and means that they are more likely to persevere with difficult material, when they understand it can be mastered over time.

Knowledge organisers are stored in folders – a Book of Knowledge in the classroom to be used for revision. These folders are transferred to the pupils' next class through the school until Year 6.

14. Common Teaching Pitfalls

1. **Accepting mediocrity**. This includes accepting poor verbal answers, bad presentation or half-hearted pieces of writing without challenge. It also means routinely accepting work from pupils that, whilst arguably 'complete', is far below the standard they are personally capable of. With verbal answers, a quick win is to say something like 'that's nearly right but now say it better, in full sentences, linking the ideas together.' Eg. Say it again, better. Sometimes accepting mediocrity is the product of not challenging a weak response; sometimes it's a product of celebrating completion at the expense of quality. Routine re-drafting is a good way to set the bar higher for everyone; first efforts can always be improved. See the video on Austin's butterfly for more on this concept. https://modelsofexcellence.eleducation.org/resources/austins-butterfly Pupils have high standards of presentation when teachers set clear expectations and follow up when pupils do not meet expectations. For high-performance to be developed, individuals need to be able to concentrate, be open to new experiences, be prepared to make some sacrifices, understand how to work hard and how it is hard work that leads to success.

2. **Rushing practice**. Pupils need lots of practice with feedback alongside; doing the same things over and over again, getting slightly harder. It's a common error to focus too much on the telling but not giving enough time for practising the doing. Lessons need adequate time for both.

3. **Interrupting practice**. Children need quiet and extended time to think. If pupils are focused on a task, teachers must avoid the temptation to interrupt with new information or tips. During practice, allow them to concentrate.

4. **Guess what's in my head**. Ask yourself often: Given what you have told a pupil before, could a child answer or are they relying on knowledge that would have had to access from someone else? If the latter, you are probably playing 'Guess what's in my head'. We require all teachers to avoid playing this. We aim to respect pupils' time by spending every minute productively. As a guide, if fewer than 75% of hands up when asking a question, something is probably wrong. If pupils have simply forgotten, try 'warm-calling' where pupils turn to their partner to help before answering[12]

5. **Lacking assertiveness (presence).** An important pitfall to avoid is not being assertive enough; not owning the space or not addressing low level behaviour issues. You need to be sure you are the one that owns the space and is aware of everything happening in the classroom or corridor. Standing still and straight, making eye contact, you need to reach everyone with your voice and your gaze, picking up the small stuff. If you want pens down, you want everyone's pen down; if you want eyes front, that includes everyone. Stop low-level chat and off-task behaviour. Do not allow pupils to read their own books in your lessons. Be patient but firm and insistent. At any time, you can re-set, re-explain or re-establish the level of focus and attention you require[13].

6. **Over-use of group work**: Group work includes pupils working in pairs helping each other through the independent task. Pupils require independent practice best done in silence. It frees pupils, allowing

them to focus, gives them time to think properly and will give you a reliable indication of what they can achieve by themselves. Allowing pupils to help each other throughout the lesson or during independent practice creates unnecessary talk and distractions. If you want pupils to help each other, set a time for co-operative learning during guided practice before independent practice.

7. **Co-operative learning without clear individual roles.** It can be effective if their collective success requires each individual to be successful and they all have a clear role. Without these stipulations, you are likely to get worse outcomes than if they had worked individually.

Review

This policy is reviewed by staff and governors every three years. Parents are most welcome to view copies of the policy on the school's website and comments are invited from anyone involved in the life of the school.

Automaticity, similar to fluency, refers to knowing how to recall a fact or perform a task at a competent level without it requiring conscious effort.

Broad and rich curriculum describes a syllabus with clear and deliberate consideration about what is on the syllabus, how it is taught and why this benefits pupils – for all subjects – not just Maths and English – with first-hand learning experiences.

Cognitive load theory refers to the effort being used in the working memory.

Cognitive science is the study of the mind and its processes.

Cognitive support describes the help provided to help pupils have sufficient cognition (cognitive release) to concentrate and engage with new learning. This might be providing prompts, such as questions stems to aid reading comprehension, or teacher thinking aloud, while modelling writing, or worked examples for maths problems that provide a step-by-step demonstration. These can be a form of scaffolding.

Cultural capital is a concept by the sociologist Pierre Bourdieu to describe the assets of person that promote social mobility. Examples of this are education, intellect, manner of speech, knowledge of classical art, music, cuisine and dress sense, e.g. an adult on a business lunch in a French restaurant who cannot understand the menu might be marked out as lacking cultural capital.

Cultural literacy is a term coined by E.D. Hirsch which refers to the ability to understand and participate fluently in a given culture. A culturally literate person knows a given culture's signs and symbols: including its language, entertainment, idioms, idiosyncrasies etc. A culturally literate person can talk to and understand others of that culture with fluency, understanding allusion, references to past events, jokes, places etc.

Differentiation describes the range of methods teachers use to accommodate a diverse range of learners.

Fluency it is the ease with which a person can perform a task which in turn relies on the ease with which a person can retrieve information quickly from memory. It is also called retrieval fluency.

Formative assessment is a range of formal and informal assessment procedures conducted by teachers during the learning process in order to modify teaching and learning to improve pupil attainment. As well as being used to re-shape and re-calibrate the curriculum. It typically involves feedback for both pupil and teacher that focus on the details of content and performance.

Instruction: **Direct instruction** refers to instructional practices that are led by teachers. This can be described as the I of I/We/You.

Instruction: Guided practice is the part of the lesson where the teacher spends time helping pupils to rehearse new material by asking questions and having pupils elaborate, rephrase and summarise. The teacher will supervise pupils as they rehearse and practice new steps in a skill. This can be described as the We of I/We/You.

Instruction: Independent Practice is the part of the lesson when pupils practice the material after sufficient guided practice. It should involve the same material as the guided practice. This can be described as the You of I/We/You.

Knowledge and skills: knowledge describes facts and information acquired through experience or education. A skill is the ability to perform a task with determined results. Skills are the 'know-how' in applying the 'known'.

Mastery is a strategy proposed by Bloom that maintains that pupils must achieve a level of mastery (i.e. 80-90% on a test) in knowledge before moving forward to learn subsequent information.

Modelling is a teaching strategy where the teacher demonstrates the new concept or approach to learning and pupils learn by observing.

Overlearning as described by Ebbinghaus is the continued practice or study of material beyond the point of initial learning. The term is used to refer to the theory that this form of learning leads to automaticity.
Retrieval practice is a learning strategy where we focus on getting information out without referring to notes. This might involve practice tests, creating flashcards or writing or drawing everything known on a topic (from memory).

Scaffolding a method by which a pupil learning is supported (temporarily) so that pupils can access, practice, perform and have understanding.

Schema describes a mental structure we use to organise and simplify the knowledge of the world around us. They can be related to other schemas. We have schemas about almost everything.

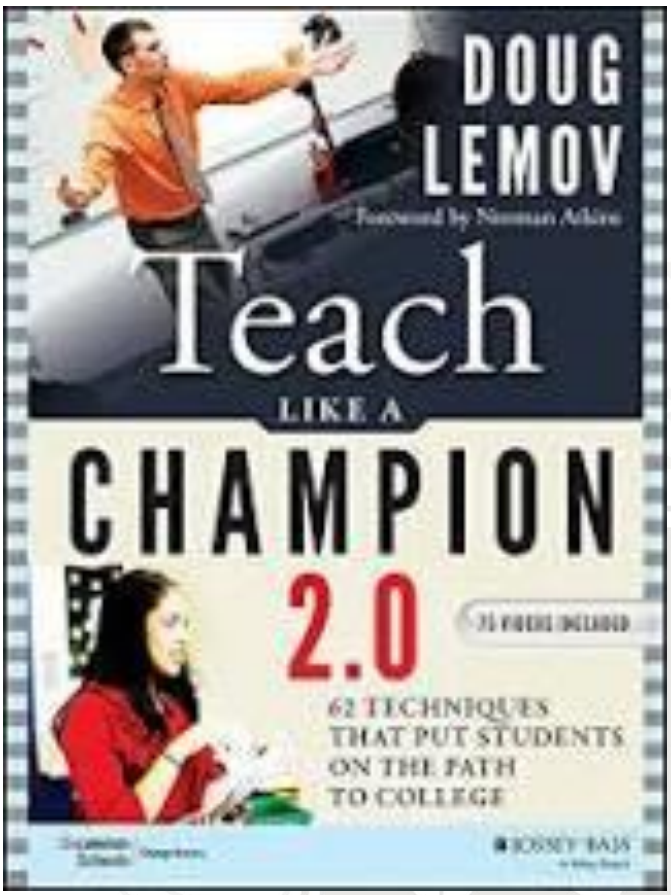
Schema activation refers to an array of activities designed to activate relevant prior knowledge.

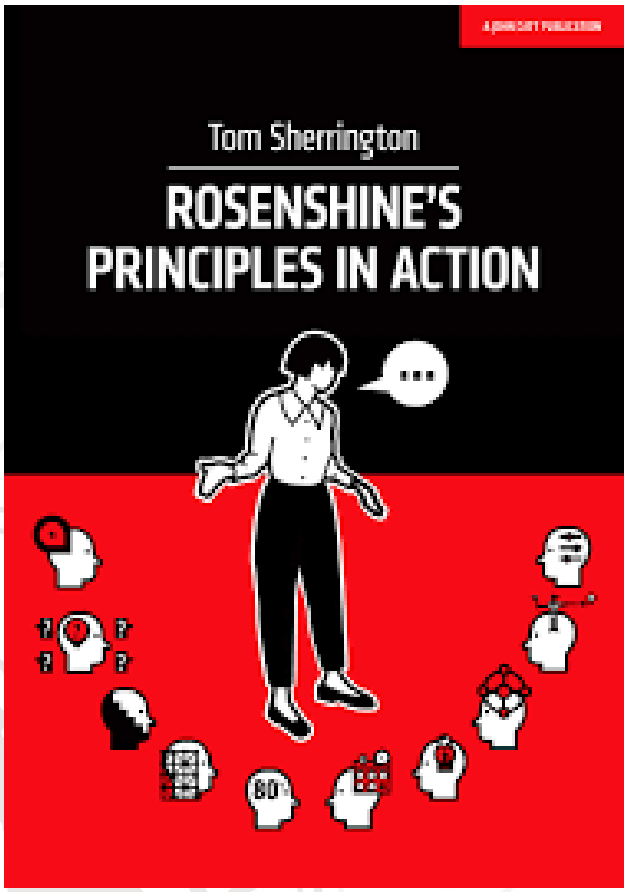
Spaced repetition is a learning technique that incorporates increasing intervals of time between subsequent review of previously learned material in order to exploit the psychological spaced effect.

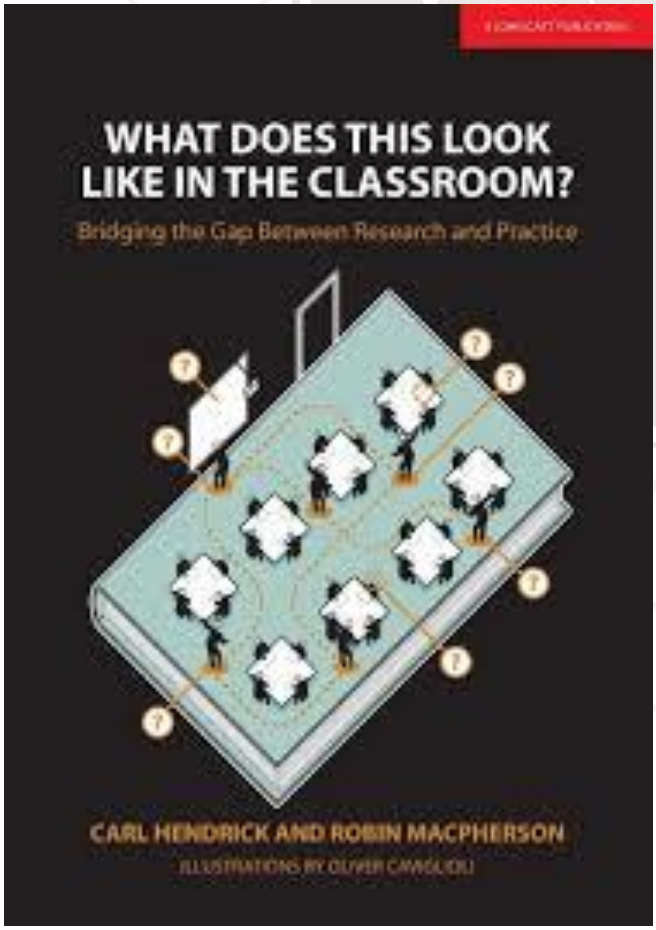
Summative assessment is used to evaluate learning at the end of an instruction period by comparing it against some standard or benchmark.

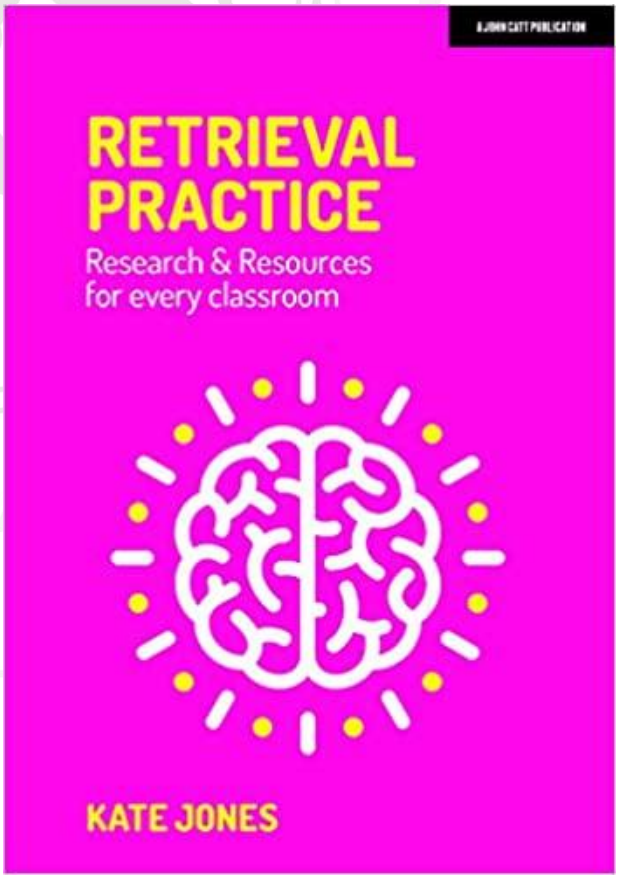
Worked examples are step-by-step demonstration of how to perform a task or solve a problem. A worked example is often presented with the teacher modelling and explaining the steps that can be taken to solve a specific problem. The teacher also explains the underlying principles for these steps. Pupils might have access to this or other worked examples as a form of cognitive support or scaffold while practicing. It is effective practice to remove steps of the worked example as learners become more proficient – faded worked examples – to combat the expertise reversal effect whereby learners with more prior knowledge of a task may benefit from reduced guidance.

Working memory is a cognitive system with a limited capacity that is responsible for temporarily holding information available for processing.


DOUG
LEMOV
Teach
LIKE A
CHAMPION
2.0
62 TECHNIQUES
THAT PUT STUDENTS
ON THE PATH
TO COLLEGE
JOSSEY-BASS


Tom Sherrington
ROSENSHINE'S
PRINCIPLES IN ACTION


WHAT DOES THIS LOOK
LIKE IN THE CLASSROOM?
Bridging the Gap Between Research and Practice
CARL HENDRICK AND ROBIN MACPHERSON


RETRIEVAL
PRACTICE
Research & Resources
for every classroom
KATE JONES

Barak Rosenshine's

PRINCIPLES OF INSTRUCTION

A thematic interpretation for teachers by **Tom Sherrington**

@teacherhead

VISUALISED BY OLI CAV Oliver Caviglioli @olicav

REVIEWING MATERIAL

❶ Daily review ❿ Weekly and monthly 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.

QUESTIONING

❸ Ask questions ❻ Check for student understanding

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.

SEQUENCING CONCEPTS & MODELLING

❷ Present new material using small steps ❹ Provide models ❽ Provide scaffolds for difficult tasks

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 that each be practised.

Models – including the importance of the worked-example effect to reduce cognitive load. We need to give many worked examples; too often teacher give too few.

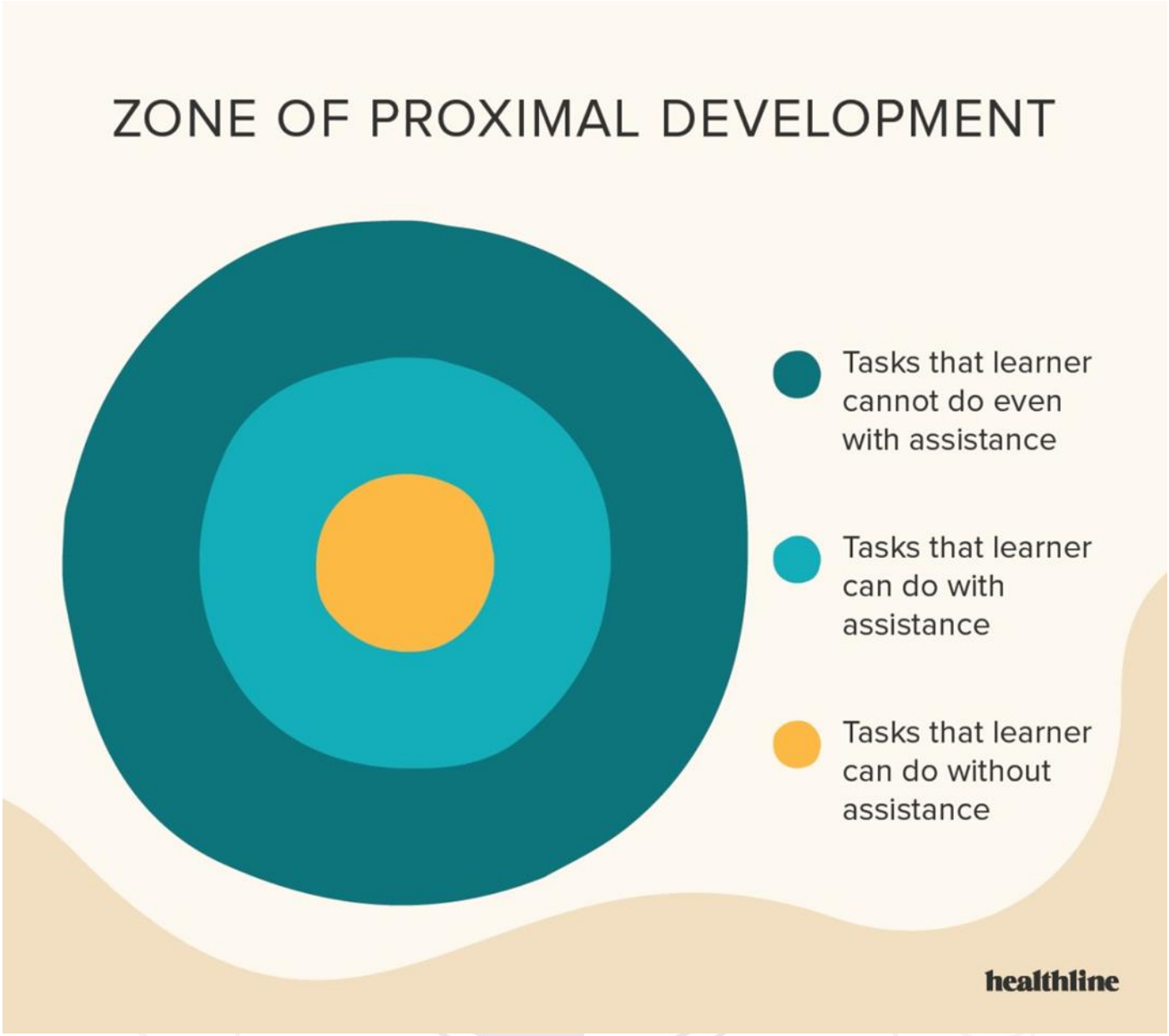
Scaffolding is needed to develop expertise – a form of mastery coaching, where cognitive supports are given – such as how to structure extended writing – but they are gradually withdrawn. The sequencing is key. Stabilisers on a bike are really powerful aids to the learning and confidence building – but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

STAGES OF PRACTICE

❺ Guide student practice ❼ Obtain a high success rate ❾ Independent practice

Teachers needs 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 – in 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.

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"*


ZONE OF PROXIMAL DEVELOPMENT
Tasks that learner cannot do even with assistance
Tasks that learner can do with assistance
Tasks that learner can do without assistance
healthline

Appendix D – Teaching & Learning Observation

Teaching & Learning Observation Record		
Teacher:	Class:	Date:
Observer:	Subject:	Focus:
How does the teacher explain the knowledge and concepts to the pupils in the class? Are the pupils encountering new skills or knowledge? How does the teacher check and extend pupils' understanding of vocabulary? Is the mode of communication clear, visible and inclusive? What works (concrete examples, dual coding, whiteboard) Do misconceptions crop up and are they addressed? How does the teacher attempt to make the learning sticky? Do staff explain what pupils are learning rather than how they will go about completing a task?		
What are the successful techniques used for modelling processes and or techniques to pupils? Is the mode of communication clear, visible and inclusive? Are pupils presented with high standards of presentation? Can the model be replicated and extended by pupils? What happens to the model – can it be revisited by the pupils?		
Are there opportunities for pupils to practice? Are pupils engaging in deliberate practice that improves their work and understanding? Do the practice activities encourage the pupils to think hard? How long are the pupils given to work?		
How does the teacher question pupils? How are questions used to assess understanding? Who is asked and who responds? Do pupils find the questions challenging?		
How does the teacher feedback to the pupils both in class and in their books? Is there immediate verbal feedback? How are pupils responding to the written feedback? How clear, specific, actionable and positive ie is the feedback? Are pupils now applying earlier feedback?		
Describe the challenge given to the pupils How are pupils encouraged to think? Do pupils have high expectations of what they can achieve?		
And What did the pupils say about the lesson? What are pupils able to say they are now better at? Describe the learning culture within the class. Was it a safe and stimulating learning environment? What will you the observer take from this lesson?		

The lesson had the following STRENGTHS Sharable practice	DEVELOPMENT CONSIDERATIONS Limitations, elements to reshape
Teacher comment:	
Observer: Signed: Date:	Teacher: Signed: Date:

Appendix E – Knowledge Organisers

PIC incl. prior learning; key vocab; key knowledge;

a. Microsoft Powerpoint is used to create knowledge organisers.

b. Knowledge organisers are stored in XXXXXXXXXXXXXXXXXXXXX

c. Bold font should be used for headings and key terminology.

d. Avoid using dark font on dark background (black on dark blue).

e. Diagrams and images should be simple and clear.

f. Definitions for key vocabulary should be written with the intention of pupils remembering them.

g. Knowledge organisers are not to be designed as a reference resource. Pupils are expected to learn the information and be able to retrieve it from their memory.