Teaching and Learning Policy including Adaptive Teaching

2025-2026

Reviewed: September 2025

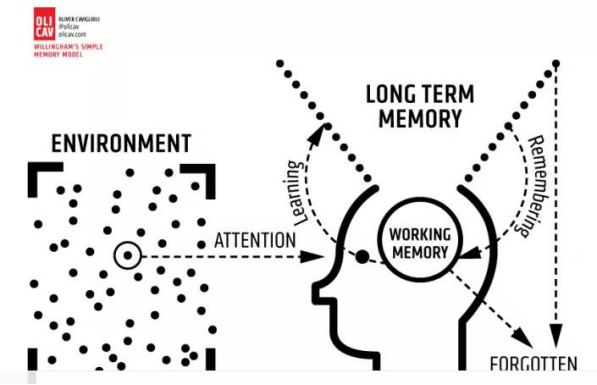
Next review: September 2026

Aim of the policy.

The aim of the policy is to ensure clarity in consistency and expectation in teaching and learning. The policy defines these consistencies and the key teaching strategies used by staff at Newdale Primary School and Nursery. The principles that this policy is based on are grounded in our common daily practice – our normal teaching. Teachers will build up a repertoire of expertise, sharing outstanding practice across the staff team. Putting the policy into practice is not an extra task to workload but built in – they are intrinsic to teaching activities. We are a school of 'doers, believers and achievers' and we ensure that children are ready for the next stage in their education, through high quality teaching and learning.

The Underlying Principles.

If teachers are going to improve their practice, it is essential that the ideas that they base their practice on are built a sound model. The model is based on the Cognitive Load Theory and Rosenshines' Principles of Instruction. Rosenshine's principles works well as a guide for personal reflection- it isn't a checklist or template for any one teaching point.



Information enters our brains from the environment into our working memory. Our working memory is finite, small and can only cope with a limited amount of information at once.

We process the information in order for it to be stored in the long-term memory. The long-term memory is unlimited and we retrieve the information back into the working memory when we need it.

How our brain organises knowledge and the information it processes is called 'schemata'. Cognitive schemata are networks of knowledge, beliefs and experiences about aspects of the world.

Typically, new information and language is only stored if we can connect it to knowledge that we already have. The prior knowledge we have is key to our capacity to learn new information. The more complex and interconnected our schemata are, the easier it is to make sense of new information and the better we are at organising it so that it makes sense.

When we understand something, it means our schemata are more fully formed, more connected and can be explained and recalled more fluently from our long-term memory.

We forget information that we don't initially store in meaningful schemata or we don't retrieve it enough. This is a natural process. We increase our ability to improve our recall and understanding if we remember the information more often and in more depth. Regular retrieval practice leads to fluency and automaticity. Our curriculum and classroom practice allow our children to recall previous knowledge and develop it further on a regular basis.

The Cognitive Load Theory states the more fluent we are with the retrieval of stored information from the long-term memory, the more capacity we have in our working memory to attend to new information and the more working memory space we have to deal with applying the information.

Misconceptions occur when our schema contains incorrect information or are an incomplete model of how a process works. When misconceptions occur, they cannot be simply overwritten. We have to unpick it and fully relearn a new, correct schema.

The learning and teaching strategies that we employ at Newdale Primary School and Nursery are underpinned by this model to enable our children to learn more, remember more and be the best person that they can be developing a love of life-long learning.

This policy is to be read in conjunction with the:

- Curriculum Statements
- Behaviour Policy
- Assessment Policy
- SEND Policy
- Individual subject policies

Marking.

Purpose:

1. students act on feedback to make progress over time.
2. It informs future planning and learning.

Principles:

- Teachers have a secure overview of starting points and progress.
- Marking and feedback must be regular.
- Marking policy must be used.

An overview of the Teaching and Learning Strategy.

Each area and principle are developed further within the strategy.

Teaching.

Purpose:

To promote a love of life-long learning enabling the children to be the best they can be.

Principles:

- An expectation of high quality language and vocabulary used by all.
- Teachers will be explicit about the learning objectives and vocabulary.
- Teachers will go with the flow of the lesson rather than the lesson plan.
- Students will work harder than the teacher.
- Ensure that learning has stuck through assessment that is systematic and incisive.

Planning.

Purpose:

To ensure high quality delivery to meet the needs of all pupils.

Principles:

- Planning is a process and not a product.
- Planning is a collaborative process.
- Objectives are learning led and not activity led.
- Long term overviews and schemes of work used.
- Planning is differentiated and scaffolded.
- All time is learning time - a flying start to the day and each lesson.

Marking.

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'Marking has the potential to be the most powerful, manageable and useful on-going diagnostic record of achievement.' Shirley Clarke.

1. **Students act on feedback to make progress over time.**

At Newdale Primary School and Nursery, we see assessment as learning. Effective assessment ensures the learner learns about their strengths and areas for development. It ensures the teacher learns about the effectiveness of their teaching and provision and also where they need to take the learner next. Effective and precise written feedback is the key to rapid and sustained progress. We ensure that all written and verbal feedback focuses on something very specific and concrete that will improve their learning.

Marking and verbal feedback will allow the children to:
- Redraft or redo – Go back to edit and improve certain areas of the work.
- Rehearse or repeat – Go back to practise again and again to master specific techniques.
- Revisit and respond – Go back and practise by answering similar questions.
- Re-learn and re-test – Go back and make sure previous learning is understood.
- Research and record – Go back and develop work with deeper insight and wider references.

Feedback can be given to children in a variety of ways and in a way that is appropriate to their age. Feedback to the whole class is effective when expectations are shared with the whole class so they know what they have to achieve. Feedback is measured against the learning objectives. Therefore, the learning objectives have to be written carefully with the learning in mind, not the activity. Feedback is effective when over several weeks the children get a range of feedback. This includes in-class responsive feedback through questioning, whole class feedback, self-assessed small quizzes, peer and self-assessment critiquing, editing and redrafting.

By providing the children with regular opportunities to reflect on their learning and discuss it, they are able to articulate clearly what good learning looks like, what progress they have made, how much they know and remember and what they need to do next in order for improvement to be made. The children will begin to understand that learning is an active process that they are fully part of. We are activating children as owners of their own learning and helping them understand how this feedback fits into the bigger picture of their learning. Children are given time to respond to any feedback give. Dylan Wiliam states that, "No matter how well designed the feedback is, if it is not acted upon by the students then it is a waste of time."

Consistency in approach is crucial in ensuring that marking has a positive impact on the learning of the children and is manageable for staff. The marking code set out in the marking policy must be used by all staff and understood by the children. When it is used by all it saves on time without taking away from the impact.
When a child's work is marked regularly, it means they get regular feedback and the opportunity to improve.

1. **Marking should be meaningful, manageable and motivating.**

Marking has to be meaningful. Meaningful marking is dependent on the age of the child, the subject and is in relation to the piece of work completed. Meaningful marking will identify common errors, give the time for students to improve or correct and may re-teach parts of the lesson. Teachers will adjust their approach as necessary to incorporate the outcomes into subsequent lessons and planning.

Marking has to be manageable. A number of strategies are employed to keep marking manageable. Spotlight marking during the lesson is key to identifying and addressing misconceptions and guiding learning during the lessons. Children are given the opportunity for self and peer-assessment. Not every piece of work has to be 'deep' marked as per the Marking Policy. More detailed marking has to be in relation to the child's age and stage. Marking is about the quality and not quantity.

Marking has to be motivating. It should help the children to progress and can be written or verbal feedback. This doesn't mean universal 'well done' comments or in-depth comments. Children who are praised for the strategies they have used, their focus, their perseverance and effort, helps to create children who are hardy and resilient. Moreover, by using the phrase 'not yet' helps the children understand that they are on a learning curve and gives them a path into the future. (Carol Dweck)

2. **It informs future planning and learning.**

Marking and other forms of assessment, both formal and informal, ensure that teachers have a secure overview and understanding of the starting points of their children. Without having this overview and context for all it is impossible for teachers to deliver quality first teaching. Marking provides excellent feedback to the teacher as to whether students have learned what they have been taught. However, it is one piece of the puzzle and only one strategy used in providing the teachers with a secure overview and context of all children.

Strategy	Reasoning and impact
Pre and post learning questions	These questions are used before the teaching and planning of a new area of learning. It allows the teacher to see where the children are currently at in their understanding and knowledge and plan accordingly. They are brief and designed in the best way that allows the teacher to gather what the children think they already know and any misconceptions that they have. The planning of the sequence of lessons can then be adapted accordingly. The children will answer very similar questions again at the end of the sequence and the teacher will have an overview of what has been taught. They also allow the children to see and understand the progress that they are making and reinforcing the concept that learning is an active process.

Planning.

Purpose:
To ensure high quality delivery to meet the needs of all pupils.

Principles:
- Planning is a process and not a product.
- Planning is a collaborative process.
- Long term overviews and schemes of work used where appropriate.
- Objectives are learning led and not activity led.
- Planning is differentiated and scaffolded.
- All time is learning time - a flying start to the day and each lesson.

In this context, planning refers to the process of teachers planning the teaching and sequences of lessons. It is important to note that children also go through a planning process when they consider the tasks and activities which are given to them. The planning, monitoring and evaluating is a process that both the staff and the children go through regularly. It is not a one-off process of discrete steps but an ongoing cycle. At Newdale Primary School and Nursery, planning is a collaborative process where time is dedicated in supporting staff plan a sequence of high-quality lessons which cater for the needs of all children and

ensure progress is made. Dedicated time is allocated in staff meetings for staff to discuss the end points for subjects and review the learning which needs to take place as the class moves forward.

It is clear from this process that secure feedback and knowing the prior attainment of the children is essential for effective planning to happen. This is planned into the planning format and with the flowchart that accompanies it. The flowchart below is a useful tool in helping the staff think through the planning process carefully ensuring they know where the children are, where we want them to get to how we are going to get there.

The planning uses as a basis the long-term overviews and relevant schemes of work as a starting point. All of our plans are reflected in the class flip charts, which are freely available on the school network drive. Our planning carefully considers the balance between substantive and disciplinary knowledge for each subject and plots this accurately to ensure that knowledge is embedded.

Staff at Newdale Primary School and Nursery carefully consider the language used in the learning objectives. The precision of our language is one strategy we use in helping make the learning stick. The learning objectives need to be learning led and not activity led. Clear and precise learning objectives ensure the staff ask themselves 'Why are the children doing what they are doing?'. It means a more efficient use of time, helps the teacher sharpen their questions and provides more focussed assessment feedback.

During the planning process, the teachers consider and plan the activities that the children will complete. This is a flow chart detailing the questions and prompting discussion to ensure the planning is well thought through.

1. What should they know and remember by the end?

Link to the National Curriculum / EYFS curriculum.

2. Where are they now?

What previous substantive and disciplinary knowledge have they retained?

What previous experiences do they have?

What gaps do they have?

Pre-learning task if appropriate.

Bridging back and bridging forward.

3. What vocabulary do they need to unlock learning?

Conceptual vocabulary

Knowledge vocabulary

4. Which quality texts will be used to support learning if applicable?

What links will be made to other subjects to support learning?

What opportunities will there be for extended writing, speaking and listening?

5. What strands of enquiry will there be? If applicable

Overall question

Sub-questions

Big questions

Opportunities for child generated questions - where recorded and are they suitable?

Enquiry is a sequence of lessons integrated by a direct focus on a single 'enquiry question' and within which pupils build up systematically and cumulatively in order to be able to answer the question by the end of it

6. The learning sequence of lessons.

Points to consider:

How can the children be hooked at the start?

What initial knowledge is needed at the start to refer back to? What is essential to moving the learning forward? What are the end points?

Each lesson exists in a wider context - how will the children bridge back and bridge forward?

Any trips or visits to consider. What impact and purpose?

Links made to the wider world.

How will the children be helped to choose and use the information? How will it be scaffolded to support and challenge?

How will they communicate ideas?

7. Revist Revisit Revisit

In the learning sequence, knowledge has to be revisited to ensure that it is deep and has stuck. Opportunities to build on learning from last week, last term, last year and to prepare them foR future learning. children need to make connections wtih previous learning and with other subjects

What learning from other subjects can be revisited within the lesson and learning sequence?

Reinforce bridging back and bridging forward.

8. Assessment and Feedback opportunities to inform subsequent learning and lessons.

Post learning task

Extended writing / Chance to Shine

Presentation of learning opportunities

10. Home-learning and research opportunities. if applicable

Where will they come in the learning sequence?

What learning will it consolidate?

How will independent research be encouraged and celebrated?

Adaptive Teaching

Progress= knowing more, remembering more and being able to do more.

Our sequenced and well-structured curriculum is broken down into components to allow pupils to know and remember more. Knowledge is built on overtime; schemas are a product of this knowledge.

We strongly believe that all children have equality of opportunity to access age-appropriate curriculum content. With this approach in mind, all children will receive high quality universal teaching as a priority. Adaptive teaching for learners needs to be reactive and responsive to the needs of the child at any particular moment in time and at any point in the learning journey. Children will need varying levels of support from learning point to learning point.

Challenge is for everyone: Our curriculum is ambitious for all children. We ensure that children are all challenged to achieve their age-appropriate milestones.

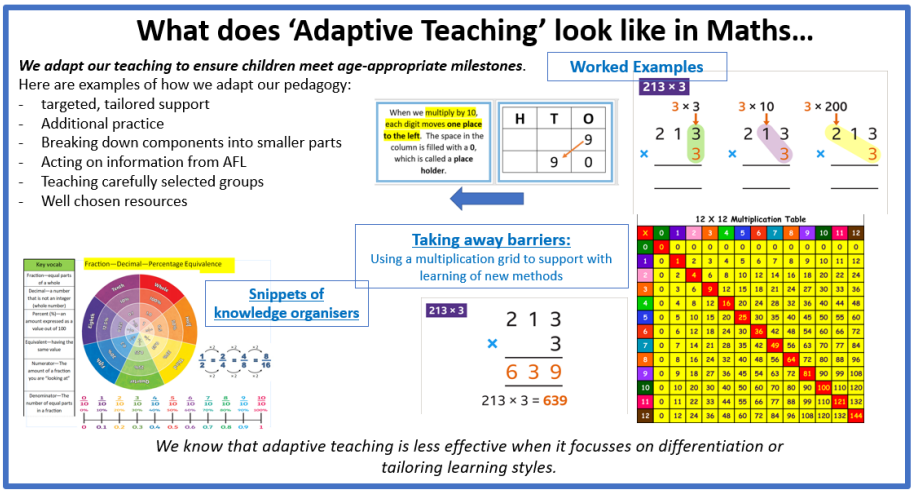
We believe that all children can make progress and grasp learning if we put in place the right strategies at the right time which will enable them to do so. All children will be exposed to the learning and curriculum content. Some will understand it more deeply than others.

Key to this is providing the children with the right support at the right time, with the children retaining the responsibility for their own learning. Communication between the adults in the room is vital to this to ensure all adults understand the concepts, facts being taught, the skills being learned, applied or extended, the intended learning outcomes and expected/required feedback. TAs should avoid repeating verbatim what the teacher has just said and should try and reword it if that will support the children to access the learning. Over prompting and spoon-feeding do not allow the children to take responsibility for their own learning.

We adapt our teaching to ensure children meet age-appropriate milestones by learning key component knowledge. Here are examples of how we adapt our pedagogy:

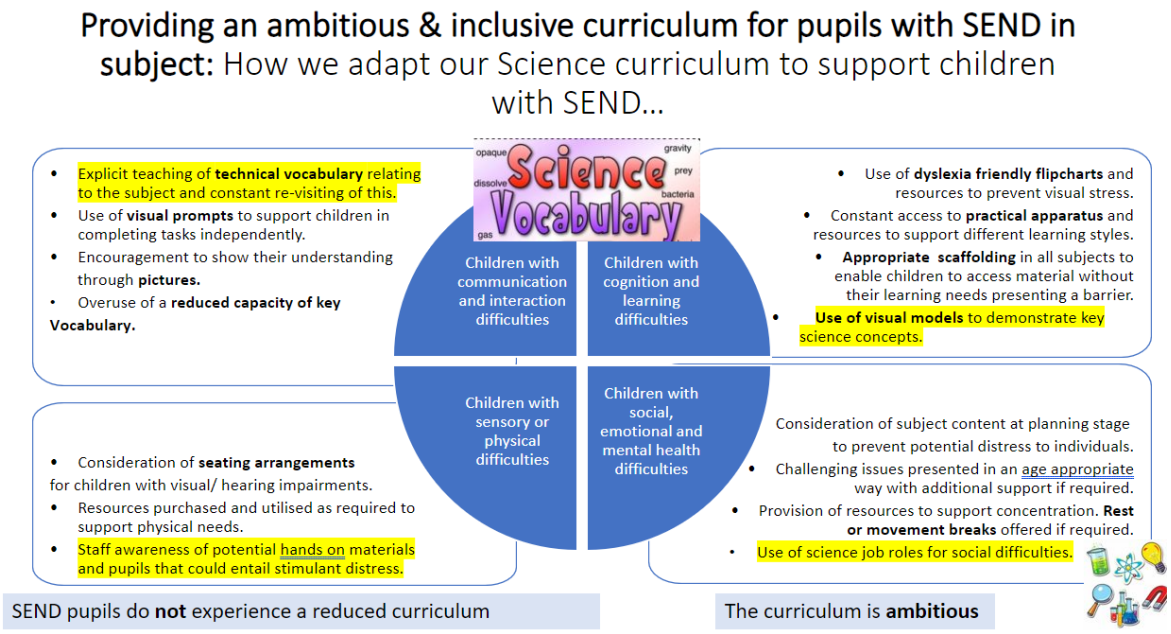
- Targeted, tailored support
- Additional practice
- Breaking down components into smaller parts
- Acting on information from AFL
- Teaching carefully selected groups
- Well chosen resources

Our subject leaders have developed different strategies to ensure adaptations are made in each curriculum subject. Below is an example of adaptive teaching in maths.



This is to be read in conjunction with our SEND policy. Effective strategies and intervention programmes are identified to support specific children. Teachers and TAs are to make explicit connection between everyday learning in the classroom and structured interventions.

Our SENDco (alongside our subject leads) have also looked at ways each subject can be specifically adapted for our SEND learners, taking into account all areas of SEND. Below is an example for our Science curriculum.



Modelling.
Sequencing concepts and modelling are key when presenting children with new information. All teachers will model to some extent, as appropriate to the lesson focus. Providing the children with models is a central feature to planning and providing good explanations.

Modelling helps reduce the overload on the working memory by presenting new information in small steps. The children need to practise these small steps. Modelling and scaffolding help the children to practise the small steps and build up the schemata. A well sequenced scheme of learning will provide the children with hands on opportunities at the most appropriate time and place to maximise learning.

When learning contains many steps, for example learning a dance or a mathematical procedure we tend to automatically model and scaffold the learning for the children. In order to make the modelling and scaffolding more effective, staff need to know where the children are. The pre-learning tasks can be designed to ascertain which part of the sequence the children are confident with and which steps the children need more practice in, in order to successfully complete, understand and apply the entire procedure.

When teachers can breakdown the complex activities- which may be the final product or overarching activity- into the smaller stepping stone stages, they will be more effective in explaining the procedures to the children. This is central to the planning process. The big picture is key to the children's understanding, they too need to know where they are going on their journey of learning. The teachers do this by giving the children the barebones of a story or situation and the big picture can be presented to the children on the knowledge organiser and in the learning environment. We have to zoom out to the big picture in order for the children to understand the zooming in to the smaller steps. They need to understand the significance of the smaller steps so that they can identify the knowledge and skills they will need to help them achieve the final creation or answer the big question.

Examples of how we adapt our curriculum:

Type of model	Detail	Classroom examples

Worked Out Models	These are completed tasks and exemplars that can be used as scaffolds. In these models the general patterns are clear and they provide a strong basis for learning. The level of completion will be reduced leaving the children to finish the problems and ultimately complete them by themselves. Providing no examples adds to the cognitive load and can leave the children unsure of the procedure and how to apply it.	Displays. Examples on flip charts and on supporting resources.
Conceptual Models	These are models we need to have in order to understand a bigger concept, for example, the properties of solids, liquids and gases or the water cycle. This type of model allows the children to visualise the concept.	Displays Knowledge organisers
Thinking out loud	This is the explicit narration of our thought processes to solve problems or undertake creative activities.	Teaching – whole class and focus groups.
Manipulatives	This type of modelling helps link abstract ideas to concrete examples. Manipulatives and concrete examples help the children to make links between the abstract knowledge being taught and the experiences of the children.	Displays Learning environment
Linking knowledge and experience	Modelling that links the new knowledge and the children's experiences builds upon the previous models. In some subjects, the experienced knowledge forms the essential basic background knowledge the children need e.g. science. We store and connect them more through memory consolidation.	Displays Memory maps
Organising the information	The children need to be explicitly taught models that help organise information. Teachers model how the complex steps of information can be sequenced, connected and arranged in a pattern to make it possible to learn and recall later.	Knowledge organisers Displays Examples on flip charts.

Scaffolding.

The purpose of scaffolding is to help the children become capable of learning independently and thinking metacognitively. The key to this is that scaffolding is temporary. The support the children are given in the cognitive process is removed at the most appropriate stage so that they don't become reliant on it. There are overlaps between the models and scaffolds that the teacher and children will use.

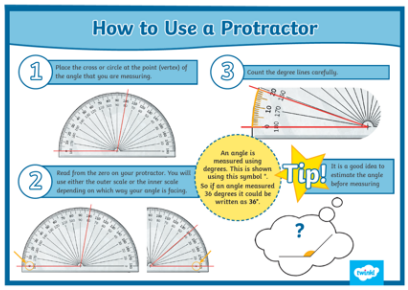
Practice and individual work help the children to develop cognitive and metacognitive knowledge. Overtime, this type of thinking will become habitual. The scaffolding will have become internalised and will support future learning.

Type of scaffold	Detail	Classroom examples
Writing frames	These help children scaffold their writing in all subjects. Frames can provide scaffolds for extended pieces of writing as well giving the children sentence stems to help the children frame their answers.	Displays Examples on flip charts.
Exemplars	The children critically analysing examples, done by the teacher or by previous students, is a useful scaffold. Children can better understand the success criteria if they can identify what has gone well and how a piece can be even better. They can then compare theirs to the example. Through a better understanding of the success criteria, the children will have a better understanding of the definition of excellence.	Displays Examples on flip charts.
Strategic thinking	These are strategies that help the children unlock the question the children may initially struggle with. This type of strategic thinking needs **explicit** modelling and scaffolding before the children can do it independently.	Learning environment

Anticipate errors and misconceptions	An important part of scaffolding is tackling these head on. Making the children aware of the 'traps' they could fall into, helps them to be more efficient in self-checking and self-correcting their work.	Teaching – whole class and focus groups.

Once the children have used the models and scaffolds, in order to develop the metacognitive strategies, the children need to have a time of structured reflection. Teachers will encourage the children to think about the model, how appropriate it was, how successfully they applied it and how they might use it in the future. Again, this metacognitive strategy will be explicitly modelled to the children by the teachers.

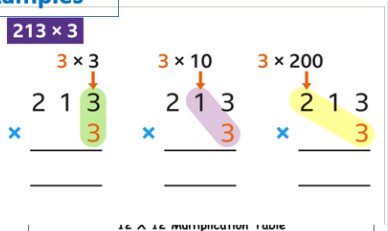
What does 'Adaptive Teaching' look like in Maths…



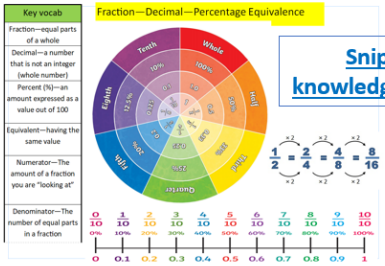
Worked Examples

When we multiply by 10, each digit moves one place to the left. The space in the column is filled with a 0, which is called a place holder.

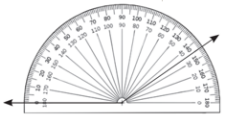
H	T	O
		9
	9	0



Taking away barriers:
Using a multiplication grid to support with learning of new methods



Snippets of knowledge organisers



213 × 3

2 1 3
× 3
6 3 9

213 × 3 = 639

We know that adaptive teaching is less effective when it focusses on differentiation or tailoring learning styles.

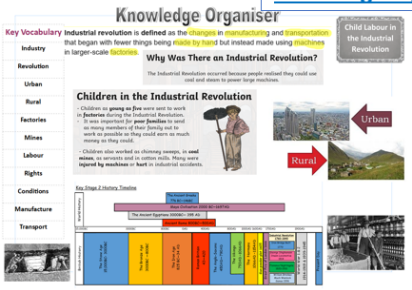
What does 'Adaptive Teaching' look like in History…

We adapt our teaching to ensure children meet age-appropriate milestones.
Here are examples of how we adapt our pedagogy:

- targeted, tailored support
- Additional practice
- Breaking down components into smaller parts
- Acting on information from AFL
- Teaching carefully selected groups
- Well chosen resources

Taking away barriers:
Writing- scaffolding

Snippets of knowledge organisers



True or False:

A Davy lamp was used to detect gas in the mine.

Children under the age of 10 used to work in mines.

Telford was a mining area.

Ponies were used to pull carts in mines.

Girls would not be allowed to work in mines.

Miners would only work 4 days a week.

Robins were used to detect gas.

Mark My Quiz…

Question	Answer	Mark	Correct
What was the Industrial Revolution?	It was a huge change in the way that goods were manufactured. People started to use machines powered by coal and steam to make products in factories.		
Why did children work in mills and factories?	They had to work because their families were poor and needed them to earn money.		
What were conditions like in the mills and factories?	The children only had to work for 2-3 hours each day and they were safe and well looked after.		

When was the Industrial Revolution and why was it so important in Britain?

Lesson Two
L/O: Can I explain what the Industrial Revolution was?
Success Criteria
I can explain what the Industrial Revolution was
I know where the Industrial Revolution is placed in time.
I understand that the Industrial Revolution involved a big change in the way things were made.
Concepts: Change/Industry

Explain what the Industrial Revolution was.

The Industrial Revolution was when Britain _____ hugely.

It started in the ____th century.

It went from a very _____ country to an _____ one.

As more farming equipment was being _____, less people were needed to work on the land.

During the Industrial Revolution, many people moved to big _____ to work in _____.

Lots of people moved to cities during Queen _____ reign.

rural	changed	urban	Victoria's
cities	factories	invented	17

We know that adaptive teaching is less effective when it focusses on differentiation or tailoring learning styles.

Teaching.

Purpose:
To promote a love of life-long learning enabling the children to be the best they can be.

Principles:
- An expectation of high-quality language and vocabulary used by all.
- Teachers will be explicit about the learning objectives and vocabulary.
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- Students will work harder than the teacher.
- Ensure that learning has stuck through assessment that is systematic and incisive.

Teaching brings together the focus during the planning and marking process. It is putting them into practice the teaching.

"If we are to understand how teaching relates to learning, we have to begin at the closest point to learning and that is students' experience." Nuthall 2001.

Learning is a highly individual process. Teaching is the facilitating of learning and understanding what is happening in the room helps the teacher understand the importance of the strategies or tools that are chosen.

Tom Sherrington states that, "A class is essentially a room full of highly individual, easily distracted schema forming brains grouped in front of us."

We cannot always see the learning that is happening. We have a well-planned lesson but it is crucial that the teacher has the professional confidence to go with the flow of the lesson and ask themselves questions throughout, 'How well is this going?', 'How well have I explained this?', 'Are they making sense of this?'.

Student Talk and Teacher Talk.
The classrooms are managed to provide structure to children's talk. The classroom is purposeful, focused and monitored by the teacher. This minimises the potential for drift and the potential negative side of talk between children. The aim of creating a community of learning requires that structures are taught, modelled, reinforced and insisted upon e.g. the children knowing when to stop working.

Vocabulary.
Teachers plan for the use of high-level vocabulary across the curriculum. This is developed through a range of strategies: questioning, working walls, quality texts and modelling. From Early Years through to Year 6 children are expected to talk in full sentences. All adults have a duty of care to correct the children and model the correct response.

Questioning
Rosenshine believes that questioning lies at the heart of effective teaching. Questioning needs to be highly interactive, dynamic and responsive. The questions we ask are almost entirely subject specific. Variations do exist for some subjects such as RHSE and it is important to recognise that the responses of the children may differ. It is key that the questions are planned well and carefully for each lesson. Our planning enables staff to reflect on what makes a good subject specific question. Over time, staff will practice and embed a range of questioning techniques. They will become organic and defaults modes for responsive teaching.

Questioning needs to be motivating to help maintain the focus of the children and avoid distraction. High quality questioning generates curiosity. Staff will frame some new material as part of a Big Question and some subjects are enquiry led such as history. This allows the children to develop ideas in a wider schema.

Questions will not only focus on instruction but will also develop metacognitive questions. These need to be explained explicitly to the children in the process. These skills need to be taught explicitly to the children at the different stages of the learning task. This type of questioning can aid the development of metacognitive reflection.

Examples of metacognitive questioning in art (EEF):

Stage of learning	Question
Planning Aim - activate prior knowledge or to ensure the right cognitive strategy is used.	What resources do I need to carry out a self-portrait? Have I done a self-portrait before and was it successful? What have I learned from the examples we looked at earlier? Where do I start and what viewpoint will I use? Do I need a line guide to help keep my features in proportion?
Monitoring Aim – emphasise general progress and checking general motivation.	Am I doing well? Do I need to use different techniques to improve my self-portrait? Am I finding this challenging? Is there anything I need to stop and change to improve my self-portrait?
Evaluation Aim – Concentrate on the success of the cognitive strategies and on what can be taken forward from the learning.	How did I do? Did my line guide strategy work? Was it the right viewpoint to choose? How would I do a better portrait next time? Are there other viewpoints, perspectives or techniques I would like to try?

It is important to remember that some children may find it hard to articulate their thinking whilst doing a task and doing so might distract them from the task and the learning process. The metacognitive reflection and evaluative questioning may need to happen after the completion of the task.

The following provides a toolkit for teachers when planning their questions.

Knowledge - low level thinking skills Recall facts without understanding				
Key verbs			Examples	Outcomes
Choose	Memorise	Remember	Can you list three…..?	Definition
Copy	Name	Retell	Can you recall…….?	Facts
Define	Omit	Show	How did …….. happen?	Labels
Find	Recall	Spell	How would you describe……?	Lists
Label	Read	State	How would you explain…….?	Quiz
List	Quote	Tell	How would you show…..?	Tests
Locate	Recognise	Trace	When did ……. happen?	Workbooks
Match	Record		Where is……..?	Worksheets
Comprehension – Low level thinking skills Demonstrating basic understanding of facts and ideas.				
Ask	Extend	Outline	Can you explain what is happening….?	Collections
Cite	Generalise	Relate	How would you classify the type of….?	Examples
Clarify	Illustrate	Rephrase	How would you compare….? Contrast……?	Explanation
Classify	Indicate	Report	How would you rephrase……?	Labels
Compare	Infer	Restate	How would you summarise……?	Lists
Contrast	Interpret	Review	What can you say about……?	Outlines
Discuss	Match	Show	What facts or ideas show…..? support……?	Quiz
Estimate	Observe	Summarise	What is the main idea of…..?	Show and tell
Explain	Predict	Translate	Will you state or interpret in your own words……?	Summaries.
Application – low level thinking skills To use acquired knowledge, techniques and rules in a new and different way.				
Act	Employ	Plan	How would you use…..?	Demonstrations
Apply	Group	Practise	What examples can you find to…..?	Diaries
Associate	Identify	Relate	How would you solve…… using what you have learned?	Illustrations
Build	Interpret	Select	How would you organise to show……?	Interviews
Categorise	Interview	Simulate	How would you show your understanding of…..?	Journal
Choose	Link	Summarise	What would result if…..?	Performance
Classify	manipulate	Teach	What facts would you select to show……?	Presentation
Connect	model	Transfer	What other way would you plan to…..?	Sculpture

Construct	organise	Teach	What questions would you ask….? in an interview?	Simulation
Analysis – High level thinking skills Examining and breaking information into parts by identifying motives or causes; making inferences and finding evidence to support generalisations.				
Analyse	Examine	Organise	What are the parts or features of….?	Abstracts
Appraise	Find	Prioritise	How is…. related to……?	Charts
Arrange	Focus	Question	What do you think….?	Checklists
Categorise	Group	Rank	What is the theme of…..?	Databases
Choose	Highlight	Reason	What motive is there…..?	Graphs
Classify	In-depth	Reorganise	What conclusions can you draw…..?	Mobiles
Discover	Discussion	Research	How would you classify…..? categorise…..?	Reports
Difference	Inference	Select	Can you identify the different parts….?	Spreadsheets
Distinguish	Investigate	Simplify	What evidence can you find….?	Surveys
Divide	Isolate	Test for	What is the function of…..?	
Establish	Order	Compare	What ideas justify……?	
Synthesis – High level thinking skills To change or create information into something new, compiling it in a different way or proposing new solutions.				
Adapt	Elaborate	Predict	What changes would you make to solve….?	Advertisement
Add to	Discuss	Propose	How would you improve….?	Film
Build	Estimate	Revise	What would happen if…..?	Media product
Change	Extend	Rewrite	Can you propose an alternative?	New game
Combine	Formulate	Speculate	How would you adapt….. to make a different,,,,?	Painting
Compile	Hypothesis	Solve	What could be done to minimise/maximise…..?	Plan
Compose	Improve	Suppose	Suppose you could ….. what would you do…..?	Project
Construct	Innovate	Test	How would you test…….?	Song
Convert	Invent	Theorise	Can you formulate a theory for……?	Story
Create	Model	Think	How would you estimate the results for……?	
Delete	Modify	Transform	What facts can you compile for…..?	
Develop	plan	Visualise	Can you construct a model for……..?	
Evaluation – High level thinking Presenting and defending opinions by making judgements about information, validity of ideas or quality of work				
Agree	Disprove	Measure	Do you agree with the actions/outcomes of……?	Abstract
Appraise	Dispute	Opinion	What is your opinion of…..?	Chart
Argue	Effective	Perceive	How would you prove/disprove……?	Checklist
Assess	Estimate	Persuade	Can you assess the value/importance of……?	Database
Award	Evaluate	Prioritise	Would it be better if…..?	Graph
Choose	Explain	Prove	Why did ,,,,,, choose,,,,,,?	Mobile
Compare	Infer	Rate	What would you recommend……?	Report
Conclude	Influence	Select	How would you rate the…..?	Spreadsheet
Consider	Interpret	Support	What would you cite to defend the actions of……?	Survey
Convince	Judge	Test	How would you evaluate…..?	
Criteria	Justify	Useful	What choice would you have made….?	
Criticise	Mark	Validate	What information would you use to support the view…..?	
Debate	Determine	Value	How would you justify….?	
Decide	Reason	Why	What data was used to make the conclusion?	

As a result of effective questioning, staff at Newdale Primary School and Nursery have developed a safe environment where it is ok to make mistakes and get things wrong. Children guided to not develop a habit of 'I don't know' and a range of questioning and learning strategies are used to avoid this. Staff will not inhibit children if they are not sure but mediocre answers are not accepted and the children and not allowed to think that they are.

It is important to ask a range of questions as they activate different parts of the brain. Asking 'aesthetic questions' such as 'What do you think?', 'Why is it good?', 'How does it make you feel?' engage the emotional part of our brain and forces us to organise our knowledge.

Questioning is key for checking for understanding. Teachers can gain feedback on which material needs to be revisited, retaught or more practice is needed. The lesson can then be adapted accordingly. This supports presenting material in small steps. We can easily check each part of the schema is correct and misconceptions are less likely to develop. In checking for understanding, staff will avoid asking only a few questions from volunteers and assess the whole class from the right answers given. When asking if the children have any questions, we will not assume that everyone understands if there are no questions. If we assume they don't understand we know that repeating the points again is not sufficient. When checking for understanding after a question that needs an explanation e.g. why does the sun rise in the east? It is important that children explain the full schema and not just a small part of it. This reduces the chance of misconceptions forming and ensures that appropriate feedback can be given and the lesson can be adapted if necessary. Staff will regularly check for understanding during the lesson in a variety of ways. Asking the children 'what they have understood?' is very different to asking 'have you understood?'. Probing questions are used at Newdale Primary School and Nursery to check for understanding. Teachers ask more questions before moving on to elicit a full understanding of the children's understanding. Probing the schema of each child with multiple responsive questions can be very powerful for example, 'That's interesting, what makes you say that?' 'Really? Are you sure? Is there another explanation?' 'Which of these things makes the biggest impact?' 'Does anyone agree/disagree with that?'

These are just a sample of the strategies staff at Newdale Primary School and Nursery use to ensure that questioning is motivating, reinforces a safe environment and checks for understanding.

Strategy	Detail
Lucky Lollies (No hands up)	*Asks for students to explain what they have learnt.* No hands up is the default for most questions at Newdale Primary School and Nursery. It is a strategy that that involves everyone and is most effective when thinking and talk to your partner time has been given and sometimes the option to rehearse the answer.
Say it again better	*Provides systematic feedback and corrections.* *Asks for children to explain what they have learnt.* This strategy allows the children to develop their normally half-formed first answer. A second opportunity will allow children to add depth, accuracy and sophistication. With prompting and modelling it allows the children to give an immediate improved response.
Snowballing	*Provides systematic feedback and corrections.* *Asks for children to explain what they have learnt.* *Checks the response of all children.* The children answer individually, then answer the questions again with a pair developing their first answer, they then revisit the question and evaluate their paired answer in a group of four. A final improved answer, containing a contribution from all 4 children is presented as their 'best answer' to the class. The children say it better each time.
Think Pair Share Talk to your learning partner.	*Asks for children to explain what they have learnt.* *Checks the response of all children.* This strategy gives time and space for all children to think and reduce anxiety whilst also reminding them that they are responsible for their own learning. All children are involved in the discussion. Think Pair Share prevents silences and every child putting their hand up.
Whole class responses e.g. Show Me (whiteboards) Four Corners	*Provides systematic feedback and corrections.* *Checks the response of all children.* These types of strategies allow the teacher to access the understanding of all the children quickly to help maintain the pace of the lesson. The teacher and teaching assistant will engage with the responses and change their teaching accordingly. Four corners allows more probing of the children's understanding to take place.
Pounce and Bounce	*Engages more pupils.* *Develops connected thinking and development of ideas.*

	Teacher establishes movement of ideas and responses around the class. It builds on other pupils' ideas and comments and ensures that the children have to listen to the contributions to others in the class. Along with other strategies, it allows the children to realise that learning is a collaborative process.

Practising, Reviewing and Revisiting Learning

Research has found that students need broad reading and extensive practice to develop well-connected networks of schema in their long-term memory (Rosenshine). At Newdale Primary School and Nursery, we know and understand the more we review and rehearse information the stronger the interconnections between materials becomes. The more we practice, the better the performance. Memory is strengthened when we can generate information from memory – not just restating it but using our own words. Telling someone what we have learned is a powerful tool to improving our memory.

Regular retrieval and review activities check knowledge but also serve as rehearsals for the children to participate in independent practice. Frequent practice, review and revisiting are built into the short, medium and long-term curriculum. If the material is not practised enough and reviewed enough it is easily forgotten. Explicit teaching and explaining of the generating and evaluating process, means that children learn to recognise what they know and what they don't and recognise that they have a number of strategies that they can use to help them remember more. They are motivated to take ownership of their own learning.

Teachers plan for different stages of practice which provide a structure for our teaching (Rosenshine). These may be evident in one lesson or over a number of lessons. They are all as important as each other.

1. High level practice for all
2. Guided practice
3. Independent practice
4. Monitoring of independent practice.

Guided practice.
Guided practice is a crucial stage of practice and it prepares the children for independent practice. This type of practice is a key scaffold for all children especially the less confident and those with lower prior knowledge. Practice strengthens the connections and means that staff can check that strong schema are forming early on and minimising the risk of misconceptions forming. Guided practice includes staff providing time to ask questions, check for understanding and using worked examples. Guided practice includes interactive activities involving explanations, a high frequency of questioning, explicit modelling and corrective and affirming feedback. Quick-fire and whole class response questioning techniques allow the teacher achieve a high frequency of questions. Guided practice helps to ensure that learning is secured, fluent and the children develop confidence. However, it does not mean that the children aren't challenged.

Independent practice.
The differentiation, scaffolds and explicit modelling the children used and had during the guided practice are removed to allow the children to apply their learning and use the resources that they have independently. The children have to recall from their memory building fluency and strengthening the connections. We provide the children with the tools to do this and they are taught explicitly strategies to help check their own work against given success criteria.

Retrieval practice and the regular review of learning means that we increase our long-term memory and level of fluency in recall. Teachers plan to review material on a daily, weekly and monthly basis. The curriculum is designed so that children build upon and have the opportunity to revisit knowledge, skills and concepts on a yearly basis.

Teachers use their professional judgement which knowledge need to be revisited on a daily basis, for example new vocabulary which will enable the children to understand a text more. Activities such as multiple-choice questions and quick-fire questions require the children to justify their choice and explain their thinking. This is more effective than asking the question 'Do you remember what we learned yesterday?'.

Weekly and monthly recall is built in to ensure material is not forgotten. Teachers use their professionalism to recognise and seek other opportunities within the whole school environment where the children can practice and recall previous learning.

Examples of strategies that may be used include:

Frequency	What do we want them to recall?	Strategies that can be used to retrieve and review
Daily	New terminology or vocabulary	Multiple-choice questions – which is the best use of the word.
	Factual recall	Ask me about ….. notes or text messages e.g. ask me what nimble means……. Ask me what the seven continents are.
Weekly Monthly	Factual recall as a baseline for further pieces of work e.g. key dates, individual moves for a dance sequence.	First taught with a completed timeline. A week later, children to complete dates on a shuffled timeline. After that after evaluating the information the children can generate using a blank timeline. This type of review over a number of weeks, each time changing slightly, avoids familiarisation with material and forces the children to think for themselves.
		Tell a story The children narrate their thinking and then questions are posed about it with their partner e.g. the story of a water droplet in the water cycle or the journey of a water droplet in a river. Cops and Robbers Brain dumps Revision clocks
		Home-learning Activities can be used to revisit weekly and daily learning.
		Quizzes The children can complete verbal, written or electronic quizzes, for example, Kahoot! Quiz Quiz Trade.
		Tests They are another part of a varied diet of retrieval techniques to ensure children explore their schemata in a variety of ways and strengthen future recall.
		Demonstrations Children demonstrate and perform learned techniques and skills. These can be evaluated, self and peer assessed against given criteria.
Yearly	Revisiting prior learning and making connections.	Knowledge Organisers/foundation subject books Children are taught to use the knowledge organisers which contain learning from previous year groups. It means they can extend this learning and make links to current learning.

For retrieval and review to be effective it has to; involve everyone, be easy for the children to assess and check their own knowledge, have children exploring their own memory, it has to be time efficient- it shouldn't take over the entire lesson and it has to be workload efficient.

Quality of learning in books.

At Newdale Primary School and Nursery, there is a high emphasis on excellence and enabling all of its members to be the person they can be. We have high standards and expectations in all that we do and this includes our books. The children are taught to take the utmost pride and care in their books, therefore, any type of graffiti is not permitted at any time.

This is to be read in conjunction with our Book non- negotiables (located in the Assessment policy) and our Handwriting Policy. Modelling and reinforcing the appropriate presentation and expectation is a powerful tool that the teachers use in every lesson. All staff use neat handwriting in the children's books which is in line with the Handwriting Policy. The children use a single line to cross out a mistake. Rubbers will be used at the discretion of the teacher. Worksheets are minimal and are only used if it is something that the children couldn't do themselves and it provides an opportunity to revisit previously taught skills. Any sheets that are stuck into books must be trimmed and stuck in neatly with no lifting corners.

Learning Environment

The learning environment is wider than the children's classroom. It is the whole school and therefore all staff have a responsibility to ensure that the school's vision and ethos are evident throughout. At Newdale Primary School and Nursery there is an atmosphere of mutual respect between adults and adults, adults and children and children and children. There is a high value based on the self-esteem of children where they can take risks in their learning and learn from their mistakes.

The classrooms are well-organised and decluttered and routines are well established so that the children can focus on their learning. Resources are clearly labelled and easily accessible. In the room and around the school, children will demonstrate behaviours for learning e.g. taking pride in their uniform, sitting up straight, facing forward and moving around calmly. This positive behaviour will be reinforced through praise and encouragement in line with our Behaviour Policy.

Displays will not be put up for decoration but will celebrate or support learning. Working walls are used to display the learning journey, making the final outcome clear to the learner and supporting the learning of new and technical vocabulary. Pictures, workings out, mistakes and photographs can all be sued to main a record of the learning journey. The learning environment will be actively used by the children in the room and explicitly used by the adults in the room. The explicit use of the classroom and the display of the metacognitive strategies will enable the children to internalise them and use them more independently.

Further Reading:

Education Endowment Fund: Metacognition and Self-regulated Learning

G. Nuthall: Secret Lives of learners

B. Rosenshine: Principles of Instruction

T. Sherrington: Rosenshine's Principles in Action

T. Sherrington: The Learning Rainforest

A. Shimamura: MARGE – A Whole-Brain Learning Approach for Students and Teachers

J. Sweller: Cognitive load during problem solving: Effects on learning.

D. Wiliam: Embedded Formative Assessment

Glossary

Cognition: the mental action or process of acquiring knowledge through thought, experiences and the senses.

Cognitive Load Theory: the way we process information from the working memory into the long-term memory.

Cognitive Strategies: Skills like memorisation techniques or subject-specific techniques. They are fundamental to acquiring knowledge and completing learning tasks, it is impossible to be metacognitive without having different cognitive strategies to hand.

Formative Assessment: a range of assessment procedures completed by teachers during the learning process in order to modify teaching and learning activities in order to improve the children's attainment.

Long Term Memory: it is the memory that involves the storage and recall of information over a long period of time.

Metacognition: and understanding of how we learn and our thought processes. The way learners monitor and purposefully direct their learning. Learning about learning.

Motivation: the willingness to engage our metacognitive and cognitive skills and apply them to learning

Retrieval: In this context the process of getting information back form the long-term memory.

Schemata: how our brain organises and processes information.

Self-regulated learning: are learners who are proactive in their efforts to learn, they are aware of their strengths and limitation because they are guided by personally set goals and task related strategies. They monitor their behaviour which enhances their motivation to continue to improve their methods of learning.

Summative Assessment: assessment that evaluates the children's learning at the end of a period of time.

Working Memory: the part of short-term memory which is concerned with the immediate conscious perceptual and linguistic processing.

"Education is a powerful engine for personal development. It is through education that the daughter of a peasant can become a doctor, that the son of a mine worker can become the manager of the mine, and that the child of farm workers can become president of a proud nation"

Nelson Mandela