Teaching and Learning Pedagogy at Manor Field

Aims

At Manor Field Primary School, we implement a Quality First Teaching model, an evidence-informed approach that focuses on inclusive and high quality teaching and learning for every child in our care. This instructional approach to teaching and learning aims to meet the needs of all learners in the classroom by providing children with new learning that is sequential, well-modelled and introduced at the right time. By doing this, we develop learners who have a fully formed, effective schema which allows them to recall and connect learning more fluently. Our quality first teaching approach, driven by key elements of educational research, provides an engaging learning journey that supports and inspires all of our pupils.

Our Pedagogy in Action

The pedagogy that we have implemented at Manor Field is based on educational research and engages our teachers with cognitive science and the wider world of educational research. In order to develop a shared pedagogical approach, we have been using 'Rosenshine's Principles of Instruction' (see Appendix 1)to help inform our instructional teaching practice, as the key principles suggested are all strongly supported by research into the cognition of pupils. The work subsequently done by Tom Sherrington has helped us to condense Rosenshine's key principles into four key strands that make up the core of our approach to teaching and learning:

1. Sequencing Concepts and Modelling

At Manor Field, new material is introduced to pupils in smaller, manageable steps.

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This recognises the limitations of working memory and manages our pupils' cognitive load.	It breaks procedures and concepts down into 'bite-sized' chunks.	Students are given the opportunity to practise at each stage.

Teachers provide clear modelling and scaffolding as a key part of the process of explaining and demonstrating, giving students well-structured support as they build their schema for new concepts.

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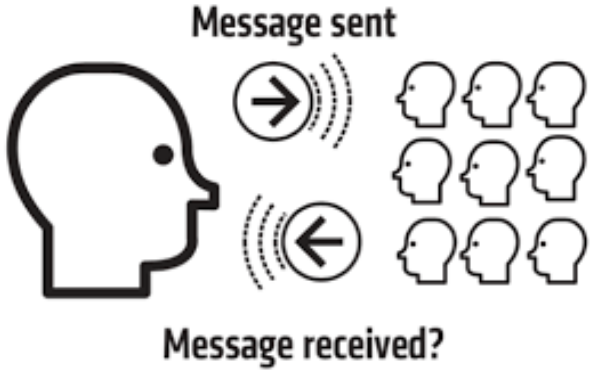
Physical representations of key tasks such as modelled writing.	Conceptual models, such as how food moves through the body's digestive system.	Explicit narration of thought processes, for example when carrying out modelled writing.

Scaffolds are provided to support tasks when necessary to give an extra layer of support while the pupils still work towards a shared learning goal. This is a form of guided practice as a precursor to independent practice. They are used to support the development of a cognitive process but are withdrawn when appropriate, depending on the individual pupil.

2. Questioning

As educational research demonstrates, effective questioning lies at the heart of great instructional teaching. Our teaching staff are very adept at using relevant questioning strategies which;

- Check for **student understanding**;
- Require that students **explain** what they have learned;
- Check the responses of **all students**;
- Provide systematic **feedback** and **corrections**.



[1]

At Manor Field, we recognise that as teachers, it's vital that we are getting as much feedback from our pupils as we can. We believe that in order for us to ascertain how much content the students are remembering, we need to be asking **'what have you understood?'** and not **'have you understood?'**

A key learning point from our continuous professional development using *Rosenshine's Principles,* is that the most effective teachers ask **more questions** that involve **more students**, probing in **more depth** as well as taking **more time** to **explain**, **clarify** and **check for understanding**.

Our teachers use a variety of high quality questioning techniques to engage our students and deepen understanding of the taught material. These techniques include;

- **Think, pair, share**

  Pairs are the most powerful way to involve all students in rehearsing and sharing ideas as part of the flow of responsive teaching. We use **think, pair, share** to give our students the opportunity to share their ideas, and rehearse their whole class responses before answering individually.

[1] Sherrington, T (2019) Rosenshine's Principles in Practice, Learning Sciences International, 30.

- **Say it again, better**

  Our teachers strive for excellence from our pupils, and this includes the depth and quality of spoken responses in class. It's crucial that we acknowledge and praise pupils' first responses, as not doing so would deter them from trying to answer in future. But with the **say it again better** strategy, our teachers support our pupils to develop more detailed responses that are built on with support of the teacher.

- **Probing questions**

  It is crucial that in order to develop our pupils' understanding, we ask questions that make them probe their schema for ideas being discussed. Well-chosen questions can support students to make links between ideas, to rehearse explanations to support long-term memory, to connect abstract and concrete examples and to identify knowledge gaps or misconceptions.

  That's interesting, what makes you think that?
  That's true, but why do you think that is?
  Is there a different way to say the same thing?
  Can you give an example of where that happens?
  Can you explain how you worked that out?
  So, what happens if you make the first number bigger?

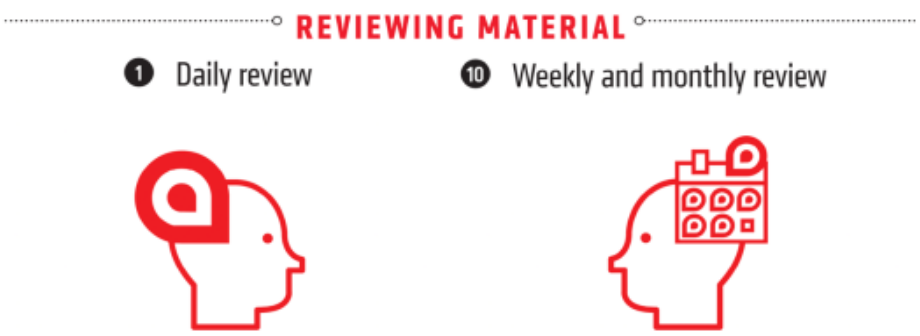
- **Cold calling**

  Cold calling is a technique that uses two key principles: making all students think and take an active role in the lesson, and giving the teacher feedback as to how well the students are learning the taught content. This strategy is highly effective to engage **all** students in thinking and engaging with the learning, whilst allowing the class teacher to further clarify and develop children's responses.

  At Manor Field, cold calling is used in the following way:

  1. Ask the class a question
  2. Give thinking time
  3. Select **one child** to respond
  4. Respond to the child's responses, clarifying and probing
  5. Select another pupil and respond again

3. Reviewing Material



[2]

Unfortunately, as we are all well aware, there is a limit to our working memory. Simply teaching new information and knowledge without reviewing prior learning would lead to our pupils remembering fewer details, making fewer connections and finding it much harder to retrieve information that they'd previously learnt. At Manor Field, our teachers incorporate daily review into lessons to support our pupils to make links and connections between new learning and prior knowledge, and to deepen the understanding of concepts that have already been covered. Most lessons:

- Begin with a short review of previous learning
- Re-teach material when necessary

Daily Review: We use daily review to support the development of fluency. By reviewing yesterday's key learning, let's say in a writing lesson, we can re-activate recently required knowledge which then reduces the cognitive load at the beginning of a new lesson.

Weekly or monthly review: We use weekly or monthly review most commonly in 'Theme' lessons, such as Geography, Science, Art or History. By reviewing what our pupils have learnt, for example last year, they can make stronger links and connections to new knowledge to build more detailed learning schemas. If a child in Year 2 is learning about the continents in a Geography lesson, it's vital that they first get the opportunity to review the learning of the British Isles and the location of England first from their Year 1 learning, so that they can build a more detailed understanding of the location of continents.

Our teachers use our Curriculum Coverage and Progression documents to check back on what children have already learned in other year groups.

[2] Grimes C, Sherrington, T (2020) Rosenshine's Principles in Action, The Workbook. John Catt Educational Ltd, 57.

4. Stages of practice

At Manor Field, in order to allow our pupils the opportunity to become fully confident learners who learn new knowledge more deeply and can apply this to more contexts, we:

- Provide a high level of practice for all our pupils
- Guide students as they begin to practise
- Prepare students for independent practice
- Monitor students when they begin independent practice

Guiding student practice: Rosenshine suggests that the most effective teachers gave more time for guided practice, which is directly linked to them spending more time asking questions and more time checking for understanding and using more worked examples.

When our teachers introduce new learning content, they spend more time asking questions that clarify and deepen understanding, modelling new concepts clearly and checking for student understanding, before expecting pupils to carry out independent practice.

All students need to practise, but that practice must be guided so that the chances of forming misconceptions is minimised.

Independent practice: Once our teachers have used high quality modelling and asked meaningful questions that deepen knowledge and assess pupils' understanding, then pupils are ready to do challenging learning, by themselves, without help.

'The more successful teachers provide extensive and successful practice, both in the classroom and after class.'[3]

At Manor Field, we provide our pupils with the opportunity for extensive independent practice at each stage of learning during a lesson. This is crucial in order for skills and knowledge to become automatic.

[3] Rosenshine B (2012) Principles of Instruction: Research-based strategies that all teachers should know. American Educator, 36, 19.

Appendix 1

THE PRINCIPLES OF INSTRUCTION

TAKEN FROM THE INTERNATIONAL ACADEMY OF EDUCATION

This poster is from the work of Barak Rosenshine who based these ten principles of instruction and suggested classroom practices on:

- research on how the brain acquires and uses new information
- research on the classroom practices of those teachers whose students show the highest gains
- findings from studies that taught learning strategies to students.

01 DAILY REVIEW

Daily review is an important component of instruction. It helps strengthen the connections of the material learned. Automatic recall frees working memory for problem solving and creativity.

02 NEW MATERIAL IN SMALL STEPS

Our working memory is small, only handling a few bits of information at once. Avoid its overload — present new material in small steps and proceed only when first steps are mastered.

03 ASK QUESTIONS

The most successful teachers spend more than half the class time teaching, demonstrating and asking questions. Questions allow the teacher to determine how well the material is learned.

04 PROVIDE MODELS

Students need cognitive support to help them learn how to solve problems. Modelling, worked examples and teacher thinking out loud help clarify the specific steps involved.

05 GUIDE STUDENT PRACTICE

Students need additional time to rephrase, elaborate and summarise new material in order to store it in their long-term memory. More successful teachers built in more time for this.

06 CHECK STUDENT UNDERSTANDING

Less successful teachers merely ask "Are there any questions?" No questions are taken to mean no problems. False.
By contrast, more successful teachers check on all students.

07 OBTAIN HIGH SUCCESS RATE

A success rate of around 80% has been found to be optimal, showing students are learning and also being challenged. Better teachers taught in small steps followed by practice.

08 SCAFFOLDS FOR DIFFICULT TASKS

Scaffolds are temporary supports to assist learning. They can include modelling, teacher thinking aloud, cue cards and checklists. Scaffolds are part of cognitive apprenticeship.

09 INDEPENDENT PRACTICE

Independent practice produces 'overlearning' — a necessary process for new material to be recalled automatically. This ensures no overloading of students' working memory.

10 WEEKLY & MONTHLY REVIEW

The effort involved in recalling recently-learned material embeds it in long-term memory. And the more this happens, the easier it is to connect new material to such prior knowledge.