



Alsager Highfields Primary School

Mighty oaks from small acorns grow

Fairview Avenue, Alsager, ST7 2NW
Tel: 01270 882472
admin@alsagerhighfields.cheshire.sch.uk
www.alsagerhighfields.com
Headteacher: Mrs Rachel Woollam



Lesson Structure

Each lesson should follow this structure:

- **Explore:** present the whole class with a problem to explore. Children can work in groups or pairs (or individually, but should then share ideas), exploring the task, which can include concrete resources. Using previous knowledge, they can draw, model, or use a range of different strategies from prior learning.
 - *Share of ideas and approaches used to solve or attempt to solve the problem*
 - *activate prior knowledge, explore how children have approached the task, look at each method, then encourage the children to note down other methods used. Teachers can observe and assess, question, and encourage.*
 - *Journal their initial ideas.*
- **Master:** a structured discussion of their exploration. This is teacher-led, where targeted questions are used to draw out different methods, discussing these and any misconceptions. What are you doing in this strategy, and why are you doing it? Lead discussion on the most efficient method.
- **Read and reflect:** This can be at any point in the lesson; however, the children should be allowed to read through the textbook. The Master section is presented as though it were someone's journal, which allows the children to compare, discuss and reflect on methods.
- **Guided Practice:** The teacher can be modelling how to solve a given problem step-by-step or children can be working together in pairs to solve the questions, using the methods discussed.
- **Independent Practice:** Children answer workbook questions independently where possible.
- **Greater Depth Task/Journalling:** this involves children taking a question and extending their ideas - Prove it; Investigate Patterns or Pose a problem.
- **Feedback:** the plenary may focus on addressing a misconception, self, or peer review.

Explore - instead of 'Let me teach you...' as a starting point, children are encouraged to explore a problem themselves to see what they already know. At the beginning of each lesson the teacher reads through the problem and then encourages children with questions and prompts which probe their thinking and understanding. It is also an opportunity for children to use concrete materials. The question is completed in their exercise books using jottings, drawings, sentences, and / or equations, journalling their ideas.

Master- involves a structured discussion - the teacher leads a discussion with the children to organise the findings of the exploration; compare/contrast at least two strategies and guide toward the most efficient strategy (or the one being learnt that day).

Read and reflect - as you go through the Master section

Guided Practice - this can be either practical or involve the use of whiteboards in KS1; in KS2, it involves the children practising the methods and writing solutions in their exercise books. Some children may be able to attempt these questions independently or work in pairs; other children may be following the guided practice led by the teacher. In EYFS, children work with an adult and are guided through their individual workbook, working independently to complete questions - assessment of this is then ongoing.

Independent Practice - children answer questions in their workbooks independently. During observations of the first 3 parts of the lesson, it becomes clear who can access the workbook independently and who will require extra support.

Greater Depth Tasks - Journaling - for those who are quicker at solving the Exploration and/or for those who finish their workbook, there are different approaches which involve expanding, extending, and stretching their thinking. These are completed in their exercise books through journaling.

The 3 P's approach recommended by Andy Ash:

- Prove it - show in diagrams, symbols, pictures, write down examples which work and those which do not. Is there more than one solution?
- Patterns - develop their own investigation - eg Is this always, sometimes, or never true? Do they notice any patterns? Can they find any? Have they thought of all the possibilities? How can they be sure?
- Pose a problem - can children create and solve a similar problem?

Teachers use questions to challenge thinking throughout every lesson to check understanding. Children are also encouraged to question each other frequently throughout the lesson, deepening their understanding. Children are expected to listen to each other's responses and may be asked to explain someone else's ideas in their own words.

Discussion and feedback - pupils have opportunities to talk to their partners and explain/clarify their thinking throughout the lesson but are expected to complete written work independently (unless working in a guided group with the teacher). The plenary may focus on addressing a misconception, self or peer review, or further assessment, depending on where the lesson sits in the cycle of teaching and learning.

There will be times when this lesson structure does not suit the learning taking place. When longer investigations, games or other activities are taking place, the structure will be that which best suits the learning process.

Children use concrete, pictorial, and abstract models for each topic as appropriate to the learning context. Research conducted by the EEF underpins our expectation that both manipulatives and representations will be used in all year groups and across all ability groups to support learning before procedural methods are used. This will allow children to select from a range of strategies for both efficiency and to support success.

- Concrete - using concrete objects and manipulatives to help them understand what they are doing.
- Pictorial - use pictorial representations to help reason and solve problems.
- Abstract - both concrete and pictorial representations are prerequisites to support children's understanding of the abstract methods, reasoning and problem-solving.

When considering the planning of, during lessons and in the assessment of learning, misconceptions are pre-empted or addressed to prevent any misunderstanding or missed opportunities for learning.

Knowledge and understanding of Mathematical language is also an essential part of each lesson, and within MNP, suitable mathematical terms are recognised for use within each lesson. MNP also includes the use of stem sentences or sentence starters, which assists teachers in using the correct or appropriate terminology and also the children when writing their journals, to explain their thinking and reasoning.