



ARK Mathematics Lesson Structure

'Do Now'

The 'Do Now' acts as a 'hook' into children's learning and engulfs children with confidence for the lesson ahead. It engages children with preparation for learning and reinforces foundational knowledge. ...

Transition Point

In KS1 and Lower KS2, all children are chanting/ singing as they move from carpet to tables.

Talk Task/ Let's Explore

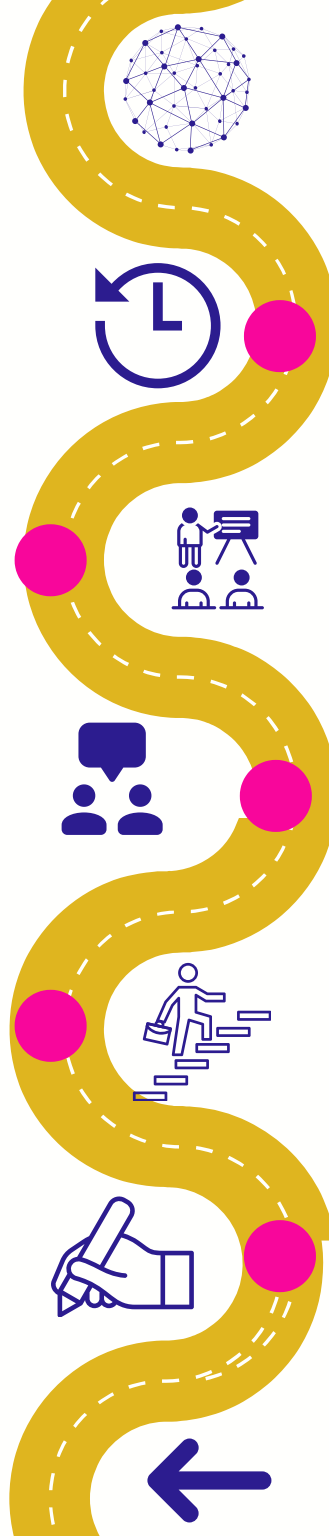
Children are given the opportunity to practise the newly learned skill. Children work in pairs, using the given stem sentences and using manipulatives accurately.

Transition Point

In KS1 and Lower KS2, all children are chanting/ singing as they move from carpet to tables.

Plenary

Review the learning and extra challenge.



Introduction of aim

The aim of the lesson is introduced to the children to allow them to make links to previous taught knowledge and to activate their own schema.

'New Learning'

With a focus on the core learning, we explain the content of the lesson and use strategies to begin to embed this new learning. This includes, by the use of choral response, saying the star words. The teacher models using concrete manipulatives, where applicable, and pupils respond by answering in full sentences.

Transition Point

In KS1 and Lower KS2, all children are chanting/ singing as they move from carpet to tables.

Develop Learning

References are made to previously learnt models/ representations/ skills/ concepts and misconceptions are anticipated and incorporated. The independent task is modelled

Independent Activity

Pupils are provided with a task in which they can apply their learning. Within this, appropriate adaptations are implemented.



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Know & Remember



Scaffold Support



Question



Collaborate



Independence



ARK Mathematics Assessment

EYFS

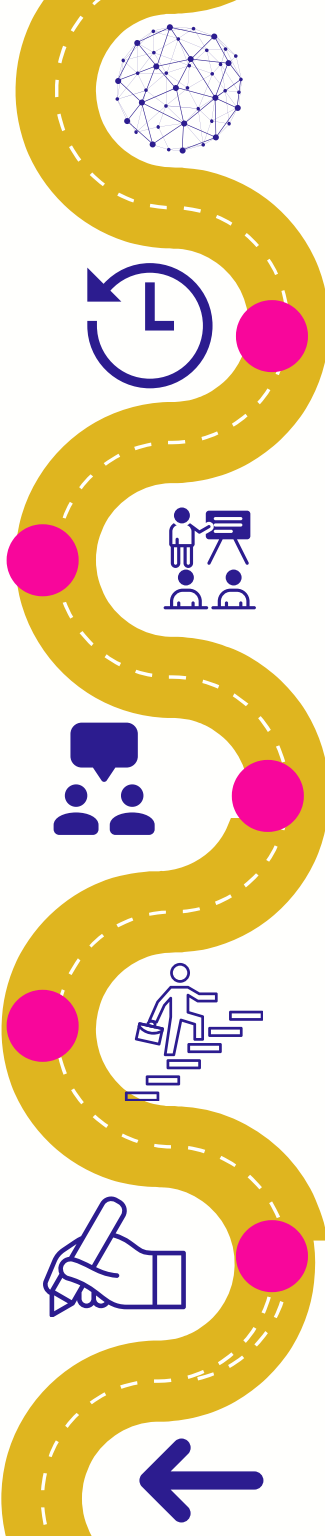
Children use the Ark curriculum to enable children to achieve their ELG's. Children are formatively assessed throughout alongside Mastering Number. Teachers in the Early Years Foundation Stage (EYFS) use assessment for maths to understand children's mathematical development and ensure they are meeting the expected learning outcomes. They employ a combination of formative and summative assessments to gather data on children's progress and identify areas where they may need additional support.

Termly Arithmetic and Reasoning Assessments

Termly diagnostic assessments are used to identify what children do and do not know and understand. These are paper and pencil assessments and contain the same written format from year to year.

Pupil Analysis

Post assessment and Smartgrade analysis, papers are returned to children to reflect upon and address errors with the support of teachers.



Ongoing Formative

The Do Now acts as a hook for all children, but also informs teachers of attainment of prior knowledge.

Pre and Post Unit Assessments

This is an essential assessment tool for all teachers. Pre - unit assessments support teachers understand the prerequisite that children need before moving on to new content, allowing them to address any gaps in learning. By using pre and post assessments, teachers can engage children in their learning process, making them more likely to participate and learn effectively; they provide a knowledge - based education that supports children's understanding and memory.

Half Termly Arithmetic Assessments

these provide teachers with valuable insights in the understanding and progress of children. They track fluency, recall and accuracy across all operations and identify gaps in understanding. This supports teachers to close gaps through targeted intervention.

Data Analysis

Smartgrade is used to enter marks and benchmark our school's performance to other schools at the same point in time. Smartgrade provides topic and question - level analysis with real time standardised scores of WTS, EXP and HS.



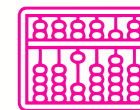
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Pre Unit



Post Unit



Half Termly Arithmetic



Termly Arithmetic and Reasoning



Analysis



Reflect



4 - A - Day

Focus On Core Facts

Sessions target key number facts: number bonds, times tables, place value fluency, and mental strategies. Each day of the week can focus on a different area of mathematics, ensuring that pupils don't go extended periods of time without revisiting content.

Adaptive Challenge

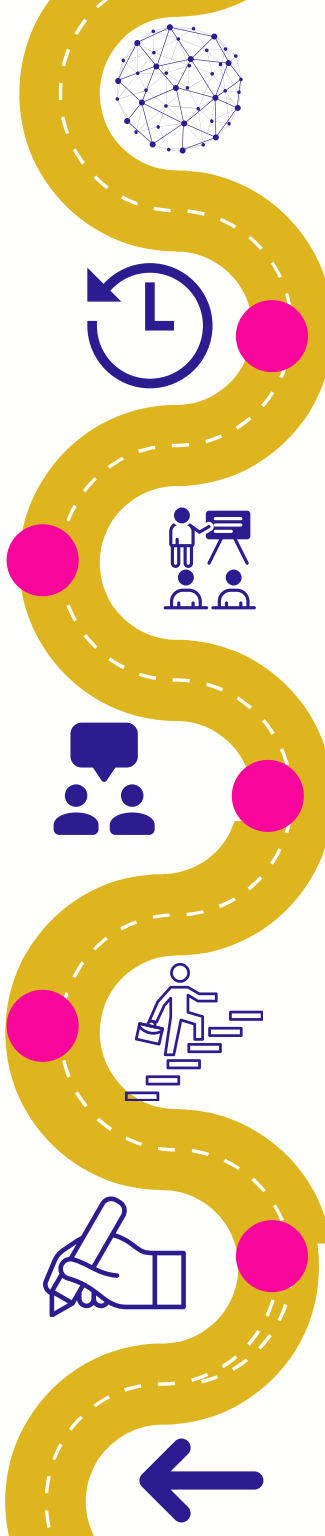
Activities are pitched to stretch each pupil appropriately, supporting both fluency and progression. However, where possible it is important for all pupils to have access to the same materials

Building Long Term Memory

Cognitive science tells us that information is more likely to be stored in long-term memory when it is recalled regularly over time. Retrieval practice strengthens neural connections, reducing the risk of forgetting.

Enhancing Mathematical Confidence

Quick and successful recall boosts pupils' confidence, which in turn, fosters greater engagement and persistence with mathematical tasks.



Introduction

4 - A - Day provides children with an additional maths session that lasts for 15 minutes. This takes place daily after lunch and is independent to their Maths lesson. The session focuses on recall and mental agility in mathematics.

Cumulative and Interleaved

Sessions revisit previously taught facts alongside new ones, strengthening long-term retention.

Retrieval, Not Just Rehearsal

Activities require pupils to recall facts from memory, not simply re-read or repeat them.

Reducing Cognitive Load

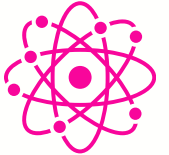
If pupils must work out basic facts each time they are needed, valuable working memory space is consumed. Automatic recall frees up cognitive capacity for higher-order reasoning and problem -

Supporting Equality and Inclusion

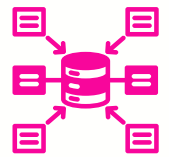
A consistent, daily approach helps ensure that all pupils - regardless of background - receive repeated, structured opportunities to master essential number facts, reducing the attainment gap. Addressed early enough, this regular practice may reduce barriers that pupils might encounter further on in their education.



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Core Facts



Cumulative



Cognitive Load



Long Term Memory



Confidence