



INTENT



At Ashley Junior School, we understand that Maths is an integral aspect of everyday life and we want to inspire a love of mathematics. Our curriculum aims to ensure that children develop a positive and enthusiastic attitude towards maths that will stay with them, providing a foundation for their understanding of the world. We believe that the more confident our children are in the subject, the more that opportunities are open to them as they leave us and continue through their education and into the world.

At Ashley Junior School, in line with the national curriculum, we want pupils to:

- Become fluent in the fundamentals of maths so that they develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- To be able to reason and problem solve as these skills support deep and sustainable learning and allow pupils to make connections in maths.
- To use mathematical vocabulary.
- To develop resilience by embracing maths challenges.
- To reflect on their own mistakes which deepens their learning.
- To engage with the subject by having fun.
- Be ready for the next step in their maths journey, whether it's the next academic year group or next key stage

The maths curriculum is carefully sequenced to combine fluency of the fundamentals and procedures of mathematics with conceptual understanding to deepen children's learning. Our aim is to provide a learning where skills and knowledge are taught, revisited and further developed while promoting problem solving and reasoning opportunities to allow for the application of new knowledge and connections made across domains with confidence.

IMPLEMENTATION

Maths is taught following the National Curriculum, and this is supported by resources from the White Rose Maths Scheme. Maths is taught daily in Years 3-6 alongside a daily fluency session and a multiplication session. The White Rose schemes of learning are designed to support a mastery approach to teaching and learning, as well as to support the aims and objectives of the National Curriculum. This is based on 'small steps' progression and yearly frameworks, which provide the foundation for secure learning, confidence and competence in mathematics. By using this high-quality resource, we are ensuring a consistent approach to the teaching of mathematics across the school, providing children the opportunity to see the same models, images and representations as they move through Y3-Y6. Teachers are encouraged to adapt their lessons, giving more time to teaching a specific skill or concept when, or if, it is needed.

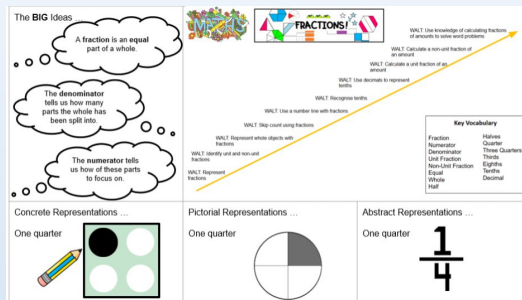
We used mixed-age planning resources in our Year 3&4 classes and we use single-aged planning in our Year 5 and Year 6 classes.

Children are taught mathematical skills and knowledge using the concrete-pictorials-abstract (CPA) approach.

Lessons mostly follow 'I do', 'We do', 'You do' phases and at the end, children have the opportunity to review and self-assess their learning. Our teachers assess children in maths through a mix of formative and summative assessment. Assessment for Learning (AfL) opportunities are taken throughout the lesson allowing teachers to be able to see if a child is ready to move deeper into a concept, or whether they need more practice. Formal assessments in maths take place at the end of each term to help teachers make judgements on whether a child is at an age-related expectation or if further learning is needed.

DAILY MATHS LESSONS

Every child's maths book will show a **learning journey** (in line with White Rose curriculum overview), like the one below, which also includes 'Big ideas' and CPA examples. Teachers are encouraged to teach concepts practically, taking photos for evidence.



Daily Lesson Structure:

DAILY FLUENCY SESSION: Fluent in 5 – Fluency work is completed on whiteboards and is a chance for children to revisit important learning. This is also an opportunity to activate prior learning before introducing new learning. Teachers use AfL techniques to assess understanding.

- **Teaching input** – The teacher will introduce a learning concept
- **I do, You do, We do** – Use of manipulatives to explore the concept. Use of mini-whiteboards for teachers to check understanding.
- **Entry ticket** - a short task to check understanding, usually completed on mini-whiteboards. Children who correctly complete are ready to move on to an independent activity. It is an opportunity to identify any misconceptions and to arrange flexible grouping.
- **Independent and supported tasks** - ensuring ALL children are challenged and supported where necessary
- **Plenary** – The class come back together. Ensure understanding of learning. Possibly looking at a reasoning task together.

Children self-assess learning by putting their books into one of three trays depending on confidence. The books will then be marked using the current marking policy and teachers will consider clear misconceptions and consolidate fragile learning. Children respond to next steps in green pen.

Children complete arithmetic and reasoning questions on a daily basis. Initially, these questions are taken from the White Rose Fluency scheme, however year groups have the freedom to create additional questions if there is a concept of skill which requires revisiting or more practice.

Children will also take part in a daily 10-minute discrete Times Tables session. These sessions include teaching the conceptual understanding of multiplication and division facts, as well as providing an opportunity to practise automatic recall. Being able to recall and use times table facts is a fundamental skill for a wide range of concepts in the maths curriculum. With a strong and deepened understanding of multiplication and division facts, pupils will be in a much better position to tackle other mathematical concepts and use their knowledge for real-world applications.

Tiny works out $1,234 + 345$

The answer is 4,684



What mistake has Tiny made?
What is the correct answer?

$542 + 133 = 675$	$475 - 231 = 244$
$6 \times 2 = 12$ $60 \times 2 = 120$	$8 \div 2 = 4$ $80 \div 2 = 40$

How can you check your answer to the addition calculation?

White Rose EDUCATION

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TIMES TABLES



Within curriculum lessons, all children are taught times tables which progresses when they reach UKS2. In addition, children will also be exposed to:

Discrete Multiplication Lessons to take place on the first two lessons of each half term:

Lesson objectives (over 2 days)

- Use of manipulatives to demonstrate multiplication facts (e.g. through arrays)
- Teaching mathematical language and understanding (e.g. groups of, lots of)
- Investigating patterns and connections between tables
- Understanding the relationship between multiplication and division
- Assessment for Learning and use of low-stake quizzes to evaluate levels of understanding.

Multiplication Recall Opportunities - 5 mins times tables practice every afternoon:

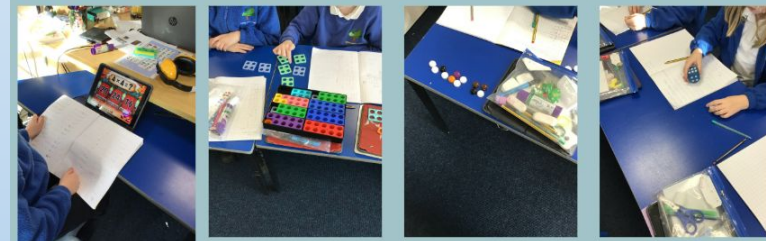
Mon- Song Chanting stick then (3/4- SuperMovers 5/6- Pop song)

Tues- Chanting with stick then Bingo

Wed- Song Chanting Stick then (3/4- SuperMovers 5/6- Pop song)

Thurs- Chanting with stick then 'Hit the Button'

Fri- Assessment booklet from TTS Rockstars



Y4 example

We chanted x2 and x4

The children learnt the multiplication sentences they did not know using resources such as numicon and counters.

Some children practised their multiplication knowledge on Ipad.



SEND LEARNING



In our mainstream setting, the majority of children will move through the National Curriculum for their year group at broadly the same pace, however we understand that there are children who cannot access the objectives of their current year group. In this instance, the children will be assessed and learning will be adapted so that they can be successful. Intervention groups are set up to allow children with prior learning and 'catch-up' opportunities. Teachers are encouraged to adapt their teaching to meet the needs of all children and scaffolds are available for those who need it.

In our Resource Provision, maths lessons are designed to be practical, engaging and accessible, with a strong focus on developing understanding through hands-on experiences. A range of visual resources, concrete materials, games and real-life activities are used to make mathematical concepts fun, meaningful and easier to understand. Lessons focus on simple, achievable concepts which are carefully broken down into manageable steps and revisited regularly. Repetition and overlearning are an important part of the provision, allowing pupils frequent opportunities to practise and consolidate skills in order to support retention and recall. The use of practical resources and visual representations helps pupils to make connections between mathematical ideas and develop confidence in applying their learning independently.

ASSESSMENT

Our teachers assess children in maths through a mix of formative and summative assessment.

Assessment for Learning (AfL) opportunities are taken throughout the lesson, allowing teachers to be able to see if a child is ready to move deeper into a concept, or whether they need more practice.

Formal assessments in maths take place at the end of each term to help teachers make judgements on whether a child is at an age-related expectation or if further learning is needed.

Children have opportunities to self-assess learning by putting their books into one of three trays depending on confidence. The books will then be marked using the current marking policy and teachers will consider clear misconceptions and consolidate fragile learning. Children respond to next steps in green pen.

There are also opportunities for children to 'live mark' their work alongside the teacher. The teacher will use their visualiser to explain and model marking, whilst the children follow using their green pens. This allows children to understand any misconceptions in the moment and also enables metacognitive growth - allowing them to evaluate their own thinking, recognise their strengths and spot any gaps.

The impact of our mathematics curriculum is that children will enjoy maths and understand the relevance and importance of what they are learning in relation to real world concepts. Children will know that maths is a vital life skill that they will rely on in many areas of their daily life. Children have a positive view of maths due to learning in an environment where maths is promoted as being an exciting and enjoyable subject. Pupils will feel confident to investigate and know that it is reasonable to make mistakes. When children leave our school, it is our aim that they will see mathematics as both useful, and worthwhile, having developed resilience enough to tackle challenging and increasingly sophisticated problems. They will think of competency in mathematics as a 'life- skill,' necessary for financial stability and an entry requirement for many careers.



MATHS RESOURCES



RESOURCES FOR PLANNING & TEACHING:

Supporting Resources:

- **Maths.co.uk** - excellent reasoning activities and assessment
- **NRich** - Reasoning and problem solving activities linked to National Curriculum objectives
- **Top Marks** - Online games including Hit the button and Banana Angles
- **Problems and Puzzles** - A perennial favourite, quality reasoning and puzzling (Award Winning Reasoning)
- **Corbett Maths Primary** - Great for Teacher subject Knowledge too with walkthroughs and good progressive activities
- **BBC Bitesize** - quirky videos the children enjoy
- **Past paper questions** - good for plenary
- **TTS Rockstars** – times tables

