



# Maths Statement of Intent

## Intent

At Willow Tree Academy, our maths curriculum is designed to be accessible to all and help children reach at least age expectations, taking advantage of reasoning, problem solving, practical and cross curricular opportunities. The curriculum is planned with the support of White Rose Maths materials to emphasise mathematical language, as well as the concrete, pictorial and abstract aspects of maths.

- We promote daily reasoning opportunities for all as part of ‘daily reasoning and problem solving’.
- Practical maths opportunities from Foundation Stage through to year 6, for example, within ‘Away from Maths Learning’.
- Using SURF (Secure Understanding Revisit for Fluency) to prepare children to be more fluent in mental calculations and written methods.
- Recalling tables facts by counting daily and using interactive methods such as Time Tables Rockstars.

## Statement of Implementation

Maths at Willow Tree Academy prepares children to achieve at least age related expectations within their Maths learning and to provide opportunities for those who are greater depth to reach their full potential. Our maths lessons include a mix of calculations, open ended problem-solving and reasoning opportunities (both written and verbal).

## **Teaching and Learning**

**Our whole school approach to the teaching and learning of Mathematics involves the following:**

- Long term planning has been adapted from White Rose to build up progression of learning year upon year and link key skills within maths
- Medium term planning is developed from the learning sequence within White Rose Maths which then feeds into short term planning
- Daily count and SURF are used to develop fluency in maths
- Lessons have the use of images and physical apparatus to allow children to visualise maths activities
- Our calculation policy is followed by all teachers and bar modelling has been introduced as another means of solving problems visually
- Children are given the opportunity to take part in ‘Away from Desk’ maths sessions which allows them the opportunity to take part in practical activities



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- Linking maths into the curriculum to see real life opportunities in maths e.g. History Timelines, ICT data handling, Maths orienteering.
- Greater Depth learners are challenged within lessons through questioning, accurate differentiation and problem solving. Greater depth children are also targeted for a Maths residential.
- Learning stops within lessons are used to address misconceptions or provide reasoning opportunities
- Plenaries are used for daily reasoning opportunities using 'Blue Square Reasoning' and for moving learning on so children can see how learning progresses
- Children are given the opportunity to self assess by using reflection slips so they assess their next steps in learning
- Targets for children are set within learning journeys so children can see what they need to do to improve
- Arithmetic tests are used every two weeks to develop fluency in mental and written calculations and for teachers to assess children's understanding.
- Daily times table opportunities are given within morning maths to develop fluency and recall
- Times tables rockstars online platform is used within school and as part of home learning to allow children opportunities to learn tables in different ways. Competitions have taken place across the academy to highlight their importance.
- Home learning to support in class learning is given weekly
- Maths videos have been put onto schools website to allow children the opportunity to see how to carry out calculations and for parents to have some support with home learning
- We encourage a love of Maths in every classroom with interactive table top displays which can be used for further understanding in maths understanding.

## **Statement of Impact**

### **Assessment**

At Willow Tree Academy we use a variety of assessment processes and materials to help children make progress and to make sure that learning meets the needs of all individual pupils.

Daily Assessments are carried out at the end of planning to allow teachers to make changes and to plan for same day interventions which may need to be put in place. Timely use of interventions is effective in helping children to close the gaps in learning so that children do not fall behind.

Weekly times table assessments are used so that children meet and recall a mixed times table before moving onto the next one. This is so learning of the tables builds on within year groups. This data is then used to target children for further intervention or support with times tables. Heatmaps from Rockstars are



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also used for parents and children to see their own progress and for ways forward to improve.

Fortnightly arithmetic assessments are carried out to develop fluency. In year data shows how children have improved their scores on average. Children self assess their skills in calculation and gaps feed into the planning of SURF to revisit areas which are needed.

White Rose end of unit analysis are carried out at the end of a unit of learning to aid children's self assessment and self reflection. This has allowed children to become more confident in identifying their own steps in learning and what they need to do to improve further.

PUMA Tests and End of Key stage assessments are used for summative assessments termly. Progress is measured and pupil progress meetings are carried out to look at ways of supporting interventions for those who require it. All groups of learners are discussed within the meeting and future targets are set.

## **Engagement**

Engagement with Maths is promoted through engaging, practical lessons, providing learners with the opportunity to succeed in active lessons with real life contexts. More able mathematicians are targeted with open ended problem solving and reasoning challenges to deepen their understanding and develop Mastery. Children engage with Mathematics across the curriculum, with particularly strong links between Science and the use of orienteering in PE. Residential visits support the wider use of Mathematics away from the classroom, providing learners with a meaningful and memorable learning experience where they can apply their knowledge and skills.