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| Policy for: Mathematics |
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| Ethos |
| "All mathematicians share ... a sense of amazement over the infinite depth and the mysterious beauty and usefulness of mathematics." Martin Gardner. We all use maths every day, even if that's not what we call it. We check our change at the shops, work out how expensive the new carpet will be, and decide when we need to leave the house to get to the airport. And at the other end of the spectrum, brilliant scientists are using maths to build the internet and help us understand the laws of the universe. Our main aims at West Road Primary are to encourage children to enjoy maths, to help children to feel secure enough to have a go at problem solving and, most importantly, help them to see how this learning is applied to real life situations so they will be able to use the things they've learned when they grow up. A lot of emphasis in maths is placed on using mental calculations where possible, using jottings to help support thinking. As children progress through the school and are taught more formal written methods, they are still encouraged to think about mental strategies they could use first. |
| What we teach |
| We use the National Curriculum (2014) as the basis of all teaching and learning throughout KS1 & 2. In Nursery and Reception, we use the Early Years and Foundation Stage (2014). Mathematics is delivered daily. The individual class teachers use a range of material to support delivery of NC statutory requirements, including the use of ICT. |
| How we teach |
| <ul style="list-style-type: none"> • In the Foundation Stage, children are given the opportunity to develop their understanding of number, measurement, pattern and shape and space through a combination of short, formal teaching as well as a range of planned structured play situations, where there is plenty of scope for exploration. • Maths learning builds from a concrete understanding of concepts where children are manipulating objects. When children are able to see concepts this way, they then need to understand the same concepts represented pictorially. Children are then ready for abstract representation before being able to apply their knowledge to different situations. • Children are encouraged to verbally explain their maths thoughts, recalling answers using full mathematical sentences. • Children's mental maths is of great importance, with number bonds, times tables facts and various strategies for calculation taught and practiced at school with support sought from parents through homework activities. • A Calculation Policy has been developed with the aim of embedding efficient written calculations and this is applied consistently in each year-group. • KS1 and KS2 follow the mastery maths approach. The lesson structure involves: explore (problem), structure and model (teach), guided practice, apply and, reflect and assess. • Subject ambassadors have become the pupil's voice and promote the enjoyment and independence of this subject. • We have subscribed to Times Tables Rockstars as a resources tool to support / challenge children's recall of their times tables. |
| How we assess |
| <ul style="list-style-type: none"> • Assessment for learning occurs throughout the entire maths lesson, enabling teachers/teaching assistants to adapt their teaching/input to meet the children's needs. This feedback should be incisive and regular. • On a daily basis children self-assess against the learning objective and success criteria, giving them a sense of success. Children know when they are meeting their targets and be self-assessing against those too. • Pupil's work are marked in line with the Marking Policy and feedback models how corrections should be made, giving children a chance to learn from their misconceptions or incorrect methods. (DIRT/Green Pen time). • Assessment of pupil work and progress is ongoing by the class teacher and informs future planning. • Teachers use Class track on a regular basis to rate children's progress in mathematics against age related expectations, gathering evidence over the course of the year. • Teachers use cold/hot tasks at the start and end of a maths unit to check on the progress of children. • Summative assessments are made at least once per half term and this is recorded on O-track. |
| How we monitor |
| Monitoring of children's progress begins with performance review meetings but continues with the subject leader and phase leaders evaluating further evidence to ensure children are making progress. This monitoring happens through examination of work in books, pupil interviews, analysis of assessment results and the assessments used, and through other means depending on what is information needs to be gleaned. Following monitoring activities feedback is given to staff about how they can strengthen their practice and CPD (professional development) opportunities built in where it would be deemed valuable. These might take the shape of inputs during staff meetings or by a variety of other means. |

Where specific initiatives have been put in place through action planning for school development, these are monitored by the subject leader in order to evaluate their impact. Findings are reported to the headteacher and governors through use of the 'Subject Leader's Action Plan' as well as the Phase Leaders monitoring file. The success of interventions is also monitored by the Inclusion manager and this informs future planning of intervention.

Resources

- In the classrooms there is, either on display or easily accessible to children, level appropriate resources, particularly concrete and pictorial apparatus to support children to grasp concepts. Each classroom has a mathematics working wall which is reflective of the current mathematical topic. It displays key vocabulary, examples of work, strategies, plus helpful resources.
- Mathematical vocabulary is displayed and made use of daily so that children use this in the communication of their understanding.
- Maths work on display in classrooms and in other areas of the school in order to encourage a positive attitude and enthusiasm towards mathematics for all groups of children.
- Once stocks run low or new purchases are to be made, requests are given to the Subject Leaders and they order new resources.

Health & Safety

In line with the schools health and safety policy, children are instructed in the use of all equipment. If children are working outside the classroom they are supervised, especially during cooking and more practical activities. Children will be taught how to use potentially dangerous equipment in a sensible manner e.g. scissors, pair of compasses, weights.

Refer to other policies already written to cover Inclusion, Science, Health and Safety, Teaching and Learning, Assessment and Curriculum Long Term Plan

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