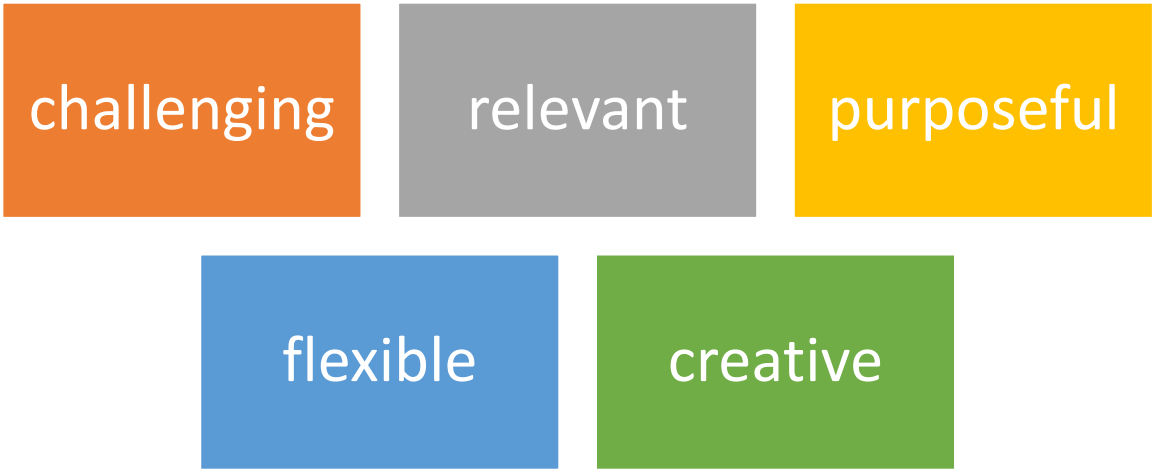
Maths Curriculum Statement

Through our school vision of 'Opening a World of Learning and Opportunity' we intend to deliver a maths curriculum that will be:



In doing this we will develop our values of:

Intention

Children at Vigo will have a love of maths not just as a subject but as a tool to help them succeed in life and make a positive contribution to society. Children will be taught a range of strategies through a Concrete, Pictorial and Abstract (CPA) approach to learning, built on through plenty of practice in engaging, experimental and rich problem-solving tasks: all of which will help children to calculate fluently, to be able to articulate their reasoning and to understand the world of mathematics that is all around them.

Implementation

Vigo Primary School follow the White Rose Maths Curriculum throughout the school. This is influenced and informed by the work of leading mathematicians from around the world and is designed to help children inspire a love of maths.

The learning is organised into units of work, each focusing on developing a specific set of concepts, such as a Place Value, Fractions or Geometry, building on children's prior knowledge through a series of small steps. Every block of work develops children's understanding through using mathematical equipment, which they can handle and manipulate (concrete strategies), pictorial representations such as bar modelling and part-part whole models, moving finally on to abstract and more formal written methods of recording. The CPA strategies children are taught can be found in our school calculation policy. By working in units of work, we are ensuring our children have the time and space to develop a clear understanding of the skills before they are linked to new concepts introduced in future units.

To ensure our children maintain prior learning, and following the Rosenshine Principles[1], every maths lesson begins with a "Flashback" – a set of questions that revisit skills already taught, whether that be from the previous day, the previous week or even year. Children also sit low-stake tests [2] at the end of every unit and at the end of each term so that teachers can ensure every child is making progress in their learning and any gaps in understanding can be planned for and addressed.

The White Rose Maths Curriculum is the backbone to our curriculum but teachers provide children with different types of questions and problems by using tasks from a range of other high-quality resources such as those from the National Centre for the Excellent Teaching of Mathematics [3.] and Gareth Metcalfe's "I SEE REASONING" books[4]. Therefore, the mathematical tasks children are given vary from those designed to develop fluency skills through to more open-ended tasks that provide opportunity to talk and discuss. Wherever possible, children are shown how maths can be applied in real-life situations and see how the skills they are learning at Vigo are transferrable to their lives outside of the classroom now and in the future. For that reason, where applicable, links to maths are made in other areas of the curriculum. For example, children are able to apply their knowledge and skills in measures, geometry and statistics within science, geography and DT. In every maths lesson, children are expected to be motivated, open-minded and resilient and know that it is acceptable to make mistakes in order to develop understanding.

Finally, at Vigo we know how important it is that children are able to recall number bonds and multiplication facts. These are regularly incorporated into lessons and for any child needing additional support, intervention programmes such as 1st Class @ Number and Precision Teaching are used. Children also have access to online materials through Purple Mash [5] and Times Table Rock Stars [6], which can be used to practice skills.

Impact

We know that children are doing well when:

- they feel successful when they are doing maths, working collaboratively or independently
- they are prepared to challenge themselves, showing resilience and creativity
- they can automatically recall and use key number facts such as number bonds and multiplication facts (and associated facts)
- they calculate using efficient informal and formal methods with fluency
- they work well together to solve problems using a range of strategies
- they are able to explain and talk about their maths with understanding
- they are able to use reasoning to derive new and connected knowledge from that which is already known and secured
- their maths books show their good progress
- they do well in assessments relative to their prior attainment

We know that teaching is effective when:

- teachers are confidently planning and teaching a learning journey.

- teachers are secure in their subject knowledge
- teachers many strategies to draw upon, which are actively modelled and taught
- careful scaffolds are used to enable all children to access whole class teaching

References and definitions

1. https://teachinghow2s.com/blog/principles-of-instruction
2. Frequent short recall sessions that aim to revisit and practise key knowledge.
3. https://www.ncetm.org.uk/
4. https://www.iseemaths.com/
5. https://www.purplemash.com/
6. https://ttrockstars.com/