Brompton and Sawdon Community Primary School

Curriculum Intent Statement for Maths

Maths is a skill that we use on a daily basis and is an essential part of everyday life. ... Our aim is to develop a positive culture of deep understanding, confidence and competence in maths that produces strong, secure learning and a sense of curiosity. This will ultimately prepare the children well for every-day life and the next stage of their education.

Our mathematics curriculum will give pupils the opportunity to:

- become **fluent** in the fundamentals of mathematics, through varied and frequent practice so they develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- **reason** mathematically, developing arguments, justifications or proof using mathematical language.
- **solve problems** by applying their mathematics to a variety of problems, including breaking down problems into a series of simpler steps and persevering in seeking solutions.
- Develop a **deeper understanding** through employing a **mastery approach.**
- communicate, justify, argue and prove using **mathematical vocabulary**.
- better **make sense of the world around them** by **making connections** between mathematics and everyday life
- be **independent, ask questions, investigate**, be **creative** and **imaginative**, **present**, **challenge** and be challenged, as outlined in our **Ready to Fly** Pillar, like Sir George Cayley did on our own village in designing and building the first successful glider.
- **Collaborate, contribute** and **support others** as outlined in our **Family** Pillar
- **Listen** to the methods and ideas of others and **be heard** as outlined in our **Respect** Pillar
- Develop maths skills, wherever possible, **across the curriculum.**

Implementation

Our mathematics lessons:

1) **Begin with a quickfire retrieval session** in order to develop **Automaticity** and **reinforce/revise key skills.**

2) Are **based on White Rose planning, however staff are expected to adapt this** to ensure that all questions and activities are effective. This ensures effective coverage of:
Fluency: to develop the ability to recall and apply knowledge rapidly and accurately
Reason: develop arguments, justifications or proof using mathematical language.
Problem solving: applying mathematics to a variety of problems, including breaking down problems into a series of simpler steps and preserving in seeking solutions.

Staff also draw upon other resources such as : TargetMaths, NCETM, NRich, ISeeReasoning and ThirdSpace

3) **Start with *ping-pong* teacher input**, building up the small steps of knowledge that the pupils will need to tackle the following questions / activities. We adopt a *'go slow to go fast'* approach.
   - A range of Assessment for Learning techniques allow staff to see which pupils require challenge or those that will require more support in following tasks
   - Concrete apparatus is available as required
   - **'Why?' / 'prove it' / 'I know… so…'** are used to demand explanations and deepen understanding. Well phrased explanations and justifications are expected.
   - Discussion is promoted.
   - Mistakes are embraced as opportunities to learn

4) **Require the use of correct mathematical vocabulary by all at all times.**
   - Displayed to help the children use vocabulary well

5) **Develop understanding through concrete to pictorial to abstract learning.**
   - Pupils access concrete apparatus (independently) where possible.

6) **Are supported by up to date working walls and well-resourced maths areas**

7) **As an extension, pupils who finish may be asked to:**
   - **create their own word problems using the particular concept being learnt**
   - **teach others**
   - **make up their own method / problem or question**
   - **complete a more complex task**

Where possible, children should be working towards a common goal and working on the same material which increases in difficulty as the task progresses.

We have the highest expectations for our pupils with SEND. They receive the support and resources that they need to achieve the objectives in line with their peers – see progression document…

If they can't learn the way we teach, we teach the way they learn.

The development of fluency and the rapid recall of key bonds and facts is developed through daily 10/15min 'fluency' teaching sessions – taught separately to the main daily maths lesson. We have subscribed to the NCETM 'Mastering Number' programme to support this. We previously used the Claire Christie daily Fluency scheme in Year 3 and 4, however in order to accelerate the children's exposure to higher multiplication tables, the children now get a daily fluency session following the school's fluency progression map (see website):

Yr	Main daily maths lesson	Additional fluency session
R	**Mastering Number: Reception** **Pattern, measure, shape and space are taught explicitly as these are not included in the Mastering Number programme for EYFS**	**Additional opportunities planned through continuous provision**
1	**White Rose** (supported by other resources)	**Mastering Number: Year 1**
2	**White Rose** (supported by other resources)	**Mastering Number: Year 2**
3	**White Rose** (supported by other resources)	**Claire Christie programme**
4	**White Rose** (supported by other resources)	**Claire Christie programme**
5	**White Rose** (supported by other resources)	**Claire Christie programme**
6	**White Rose** (supported by other resources)	**Claire Christie programme**

Intended impact

All children:

-achieve well in maths

-understand the relevance/importance of what they are learning in relation to the real world

-know that maths is a vital life skill that they will rely on in many areas of their daily life.

-have a positive view of maths due to learning in an environment where maths is promoted as being an exciting and enjoyable subject.

-see themselves as mathematicians.

-know that it is OK to be 'wrong' and that this can strengthen their learning because the journey to finding an answer is most important

-are confident to 'have a go' and choose the equipment needed to help them to learn along with the strategies they think are best suited to each problem.

-take pride in their maths

-receive the feedback and interventions required to be the best mathematicians that they can be