

## **A Curriculum with HEART....**

Our forest/rural surroundings encourage curiosity and wonder and therefore our curriculum is an adventure that allows our children to explore new things, discover more about themselves and the world around them and create a toolkit of knowledge and skills that mean they are well equipped to face the next stage of their adventure. Our values run through everything we do and mean we face adventures with HEART.

### **Maths Subject Statement 2023-2024**

At the federation of Burley and Sopley Primary Schools, we believe that the skills of mathematics are vital for the life opportunities of our children. Our Mathematics Mastery curriculum has been developed to ensure every child can achieve excellence in mathematics. Children can experience a sense of excitement and wonder as they solve a problem for the first time, discover different solutions and make links between different areas of mathematics. Our curriculum provides pupils with a deep understanding of the subject through a concrete, pictorial and abstract approach that we entwine with rich mathematical vocabulary. This ensures pupils fully understand what they are learning.

#### **Value of our curriculum:**

- Every child can achieve (High expectations for every child)
- Fewer topics, greater depth
- Number sense and place value come first
- Focus on mathematical thinking and language
- Problem solving is central
- Calculate with confidence– understand why it works
- Develop the language of mathematics through modelled explanation and dialogue

As a Federation we follow a mastery approach to Mathematics that places emphasis on the accumulative mastery of essential knowledge and skills in mathematics. It embeds a deeper understanding of maths by utilising a concrete, pictorial, abstract approach so that pupils understand what they are doing rather than just learning to repeat routines without grasping what is happening.

#### **Aims**

-To implement the current legal requirements of the Foundation Stage (FS)and the National Curriculum (NC).

-To foster positive attitudes, fascination ( awe and wonder), and excitement of discovery through the teaching and learning of mathematical concepts.

-To ensure pupils become fluent in the fundamentals of mathematics, developing conceptual knowledge and an ability to recall and apply knowledge rapidly and accurately.

-To ensure that pupils can reason mathematically and solve problems with confidence and methodical approaches.

-For our children to develop a 'can do' attitude and perceive themselves as mathematicians.

-To broaden children's knowledge and understanding of how mathematics is used in the wider world.

-For our children to use and understand mathematical language and recognise its importance as a language for communication and thinking.

### **Organisation of teaching and learning**

#### **Across a sequence of lessons you will see**

1. Review task (Flashback)
2. Explore: New Learning (introduced through the real life problem)
3. Paired Language Development
4. Develop Learning (sharing ideas, methods, and strategies)
5. Independent Task
6. Further opportunities for reasoning and problem solving.

#### **Foundation Stage**

In the Foundation Stage (FS), teaching is planned through adult supported teaching and learning. Daily opportunities to informally develop mathematical understanding through child-initiated activities and routines are capitalised upon.

#### **Key Stage 1 and 2**

In Key Stage 1 (KS1) and 2 (KS2), teaching follows the National Curriculum and White Rose Hub materials to ensure that children develop skills sequentially, building a depth of understanding for each mathematical skill.

Our curriculum supports children with 'bridging the gap' between abstract mathematical concepts and concrete representations that they can manipulate and draw up, accessing concrete, pictorial and abstract mathematical learning alongside rich language.

In addition to this, teachers use the Maths No Problem Text Books, National Centre of Excellence in Teaching of Mathematics, I See Reasoning and the White Rose Maths Hub Mastery documents to ensure that we have both breadth and depth across our maths curriculum.

As a federation we provide pupils with a daily maths lesson, as well as frequent opportunities for pre/ post teaching and daily specific arithmetic (fluency of number) sessions.

#### **Planning**

At the federation of Burley and Sopley Primary Schools, we plan with the national curriculum objectives for current year groups as well as previous year groups in mind. We use White Rose long term maps to map out the units to be covered each term, during each Key Stage. Medium term plans identify learning objectives and outcomes for each unit, as well as indicating the skills being taught. Short term plans prepared by each teacher, highlight the skills and objectives of the lesson, and identify resources and appropriate differentiation.

They also indicate key questions and stem sentences and possible misconception. This final stage of planning will be in the form of a teacher book (from year 2 when appropriate and above) , where a journaled version of the learning journey will be completed.

### **Resources**

- Each class has a range of resources to support learning. These manipulatives are easily accessible for the children so that they can lead their own learning and use them when required.
- Central resource / equipment cupboard.
- Different environments - classrooms, outdoor learning spaces and the hall.
- A range of ICT software to support the teaching of specific concepts including Times Table Rockstars and Numerbots which can be used at home.

### **Times Tables Scheme**

Effective understanding and recall of times tables is the foundation of most of the mathematics children will do at primary school and the mathematics curriculum involves children being fluent in number skills. Our times tables scheme includes inverse operations, a range of representations and problem solving, which are all vital skills in mathematics. Children track their progression against their rapid recall of their times tables using their times table booklets and TTRS.

### **Assessment**

In Mathematics Mastery assessment is continuous. From the beginning of every journey and every lesson, teachers and teaching assistants will be assessing what their pupils are, or are not understanding and use this to scaffold each segment of the lesson. Interventions will be both planned for and 'live', meaning that misconceptions are dealt with immediately and high attaining pupils are challenged appropriately. Pre and post teaching ensures that all children can achieve and are prepared for the following lesson.

### **Foundation Stage**

Reception Class practitioner's ongoing observational assessments made early in Autumn Term 1 ascertain a baseline which then informs subsequent teaching and learning for each child.

- Future attainment is noted using photographs and observational notes.
- Statutory assessments are made on entry and on exit of the FS.

### **KS1 and KS2**

In the daily mathematics lesson, formative assessments are made on a day-to-day basis. Practitioners observe, question and evaluate lesson outcomes to further determine progress made and the next steps in learning.

- Pre/ post assessments take place for each new unit of work.
- Summative assessments are made at the end of each unit to monitor children's knowledge and understanding of concepts taught.
- NFER tests are used in all year groups from 3 – 6.
- Progress is discussed at termly 'Pupil Progress Meetings' and focus children are indicated.
- 'Pupil conferencing' involves 6 'tracker' children from Year groups 1 – 6 who are interviewed during the Autumn, Spring and Summer terms by the maths subject leader.
- Statutory assessments are made at the end of each key stage.

### **Monitoring procedures**

The Headteacher and maths subject leader play a central role in the monitoring and evaluation of the quality of teaching and learning of mathematics in the school.

The monitoring strategy:

1. Children's work and medium-term planning scrutinies are conducted.
2. Pupil progress meetings are held termly.
3. Lesson 'drop ins and observations take place in all classes throughout the year.
4. Pupil conferencing takes place termly.

The subject leader is responsible for monitoring attainment and progress, the outcomes of which are collated in the subject leadership folder and fed back to staff at an appropriate time. Teaching and learning is monitored at a time indicated in the School Improvement Plan: Monitoring and Evaluation timetable.

