



## Curriculum summary

### Subject: Maths

#### **Intent:**

##### **Why we teach maths**

We aim to develop motivated, creative and resilient mathematicians who can confidently apply what they learn. As part of a well balance curriculum and in line with the National Curriculum (2014) we aim to promote learning and develop children's understanding of the world and the ability to reason mathematically. As an Arts Mark school, it is part of a creative curriculum and it is our aim that the subject will inspire children to:

- to be fluent in the representations of mathematical ideas
- be able to apply their mathematical knowledge to science and other subjects
- to have a sense of enjoyment and curiosity about the subject

#### **Implementation:**

##### **How we teach maths**

The main aim of all lessons is to develop children's knowledge, understanding and skills, applying these to a variety of contexts. One of the key elements in lessons throughout the school should be on developing the children's mental calculation strategies alongside developing the children's written calculation strategies as laid out in the Written Calculation Policies for addition, subtraction, multiplication and division

- Using concrete, pictorial and abstract activities in turn to support understanding
- Building on previous concepts through carefully structured and progressive learning units
- Emphasising the structure and connections within the mathematics, so that pupils develop deep learning that can be sustained
- Providing the 'tools' needed to be a 'problem solver' both in maths and in other areas of the curriculum
- Pitch lessons to challenge all to reach the highest standard
- Promoting the relevance of maths in real life scenarios
- Provide opportunities for the use of information technology
- Allocated time in KS1 3 hours 45 minutes weekly and KS2 4 – 5 hours weekly

##### **How we plan for learning**

ESSENTIALmaths is used to plan and deliver a progressive, ambitious and cyclical maths curriculum. Our approach to the teaching of mathematics focuses upon high quality teaching in order to introduce, and then secure and embed key concepts. Teachers use the adopted ESSENTIALmaths Scheme of work which systematically builds maths knowledge, skills and understanding.

Teaching covers each of the following areas of mathematics

- Number Calculations Fractions
- decimals and percentages
- Measurement
- Geometry Statistics
- Reasoning



- Problem solving

(National Curriculum, 2014)

Regularly, a number bond and times Tables focus is planned to give children the opportunity to practise and improve their rapid recall skills with facts up to  $12 \times 12$ . Children are encouraged to strive to improve their time and score each week. All children also have access to their own personal account of 'Times Tables Rockstar' where they can compete against other pupils and classes in school to develop this fluency.

Teachers plan a series of weekly lessons on a given unit building children's prior knowledge of maths. Teachers are required to complete weekly planning on the school template identifying which parts of the National curriculum in Mathematics are being covered and questions should be used with the lesson plans, in the form of 'chill challenge'. Within short term planning, clear success criteria for each learning objective taught should be created – and clearly showing the progression needed to reach and exceed the objective. Medium and Long term frameworks have been adopted from ESSENTIALmaths scheme of work.

### **How we assess learning**

Evidence of feedback to children either written or verbal should be evident, and children should be expected to respond to this and given time to do so, enabling them to learn from their misconceptions or incorrect methods.

- Assessment for learning during lessons
- Tracking progress using internal termly data
- Problem Solving
- Year 2 SATs
- Year 4 Times Table
- Summative Assessment
- End of unit assessments using ESSENTIALmaths materials
- Peer assessment
- Pupil progress meeting
- KS1 and KS2 teacher's moderation
- Remote learning – online assessment tracking system, quizzes

### **Impact:**

#### **Our expectations for all**

Pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. Most pupils will move through the programmes of study at broadly the same pace.

#### **Our expectations for Year 4**

By the end of year 4, we expect our pupils to become fluent in the fundamentals of mathematics, be secure with reasoning mathematically by following a line of enquiry, conjecturing relationships and generalisations. We expect pupils to solve problems by applying their mathematical knowledge to science and to a variety of problems that are useful for daily life, with increasing confidence.

#### **How we measure impact**



# Dunstable Icknield Lower School



Subject leader collects pupil voice termly to ensure high quality progressive teaching and tracks learning is consistent across the school. Daily, children should self-assess against the learning objective and success criteria. Subject leader will monitor through a variety of strategies including work scrutiny, lesson observations and feedback. In addition to learning walks, planning and book checks, moderation within each key stage to ensure ESSENTIALmaths scheme of work is followed consistently across each Key Stage. The Subject leader may liaise with governors and SLT on matters relating to transition opportunities for Year 4 pupils. All teachers contribute to a termly Pupil Progress Meeting where the data is analysed and targets are made by highlighting pupils not making expected progress towards targets and focusing on next steps.

## **How we monitor maths**

Teacher completes progress half termly on Target Tracker. Subject leader completes book scrutiny and planning checks. Short, medium and long term curriculum plans and overviews. Learning walks, pupil interviews, lesson observation with opportunity for feedback and support. Staff inset and training.

## **How we report**

Teacher reports progress face to face during parent teacher meetings and in a written report. Subject leader to meet with link governor in order to examine the effectiveness of policy, actions or impacts of the school improvement plan as detailed in the Maths action plan. End of year results analysis, curriculum mapping and action plans.