

# East Boldon Junior School

## Fluency in Mathematics Policy 2020



### Introduction

One of the three aims of the 2014 curriculum states that pupils will:  
*'become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately'.*

### Intent

At East Boldon Junior School, we recognise that basic skills in mathematics are the building blocks which allow the children to become fluent, confident and accurate mathematicians. Without these skills, children cannot solve problems and reason mathematically.

The aim is:

- To allow children to become fluent in the fundamentals of maths so that they are able to recall and apply their knowledge rapidly and accurately to solve problems.
- To provide a consistent and progressive framework across school in the teaching of fluency of skills.
- To foster effective learning in basic skills in mathematics by suggesting appropriate ways of teaching these skills.
- To meet the requirements of the 2014 Primary National Curriculum

## **Implementation**

### **Teaching and Learning**

At East Boldon Junior School children are offered the following opportunities to rehearse, recall and practice their basic skills in mathematics:

- A daily Hi 5 Maths session, away from the mathematics lesson which focuses on five key skills. See Appendix 2 for structure of the session.
- A daily arithmetic session, away from the mathematics lessons which focusses on developing arithmetic proficiency and fluency. See Appendix 3 for the structure of a session.
- Displays in the classroom and around school which promote basic skills.

### **Planning**

Planning of activities to develop children's basic skills and fluency is taken from the Primary National Curriculum 2014. This is mapped out to show progression and to ensure that all areas are covered thoroughly, ensuring that no gaps in children's knowledge appear. See Appendix 1 The expectations are that the majority of children will move through the stages at broadly the same pace. However, decisions about when to progress to the next stage will be taken by the class teacher and will be based on the pupils' security in understanding and application of the skills. Pupils who grasp and apply skills quickly should be challenged by moving to the next level. Those who are not sufficiently secure should be provided with opportunities to consolidate and master their understanding.

### **Resources**

At East Boldon Juniors we have a range of resources to support children in becoming fluent in basic skills. Across all phases of children's learning a range of practical equipment is used to secure children's conceptual understanding including Numicon, dienes, place value counters and real life objects.

## **Impact**

### **Assessment**

At East Boldon Juniors, we continually assess children's progress towards attaining skills from the National Curriculum and from that identify challenges. Class teachers and any trainees use gap analysis to identify next steps in children's learning and to ensure that these are planned for. Alongside the class teacher's assessment for learning, children receive a formal arithmetic test three times a year at the end of each term, and children in y6 and y3 receive a baseline assessment as they enter their year group.

### **Monitoring:**

The monitoring of the teaching and learning of basic skills will be carried out by the school's senior leadership team and will involve:

- Hi 5 maths learning walks
- Analysis of data
- Pupil progress meetings
- Work scrutiny
- Pupil interviews

Any CPD requirements will be identified as part of the monitoring process and staff will be signposted to the relevant CPD either internal or external.

**S Wilson (MEd)**  
**Mathematics Leader**  
**Summer 2019**

## **Appendix: Structure of a Hi-5 Maths: Rapid Recall Session**

Each Hi-5 Maths: Rapid Recall session lasts for 20 minutes and focusses on the practise of 5 basic skills per session alongside arithmetic practise. The session is quick paced, engaging and interactive. Enjoyment and the reinforcement of key mathematical skills should be at the forefront of all sessions.

Teachers organise the class how they wish for the session, some use the carpet others have their class sitting at tables. When recording is needed, the children record in their Maths Basics Books or on whiteboards depending on the nature of the task.

All children should be actively involved in a session and included through differentiated questioning, challenge tasks, choice of entry points to tasks and through support.

The session is structured around a series of 6 slides on the Interactive Whiteboard which is used to display resources to support the children in their mental strategies and conceptual understanding (100 squares and number lines for counting, calendars etc) though some of these activities may be based around playing a game which doesn't involve the whiteboard.

Each session must include:

1. Mad minute: a quick fire activity to engage all, and recall and revisit key facts related to year group expectations (e.g. number bonds to 10, 20, 50, 100, 1000, times tables, missing number calculations)
2. Counting activity where the children count forwards/backwards in steps appropriate to their year group (see progression in fluency of skills document).
3. Time activity where children practise skills such as reading and recording the date and time, calculating the date in X number of days' time, calculating intervals between dates.
4. Data activity where children practise making sense of data and interpreting it related to year group expectations.
5. Measures activity where children practise converting units, reading scales and supplement their understanding of using the correct units of measure.
6. The session ends with a short 5 minute arithmetic activity (based around 5 questions). This focuses solely on arithmetic computation and is intended to build fluency and stamina independently. Once finished, children should be challenged by utilising the same skill but in a different context, and some may be supported by teacher or teaching assistant during this time.

The class teacher sets series of questions which cover all four areas of operation and, where appropriate for the year group, fractions. These match the progression in skills document, though in Key Stage 2, these may come from previous year groups in order to consolidate and practice a skill. The questions may be displayed on the whiteboard, or will most likely be printed. All questions are recorded and children should be encouraged to use the formal written method appropriate to their year group and current stage of learning.

Children's responses should be self-marked or peer-marked, thus giving immediate feedback. It is this deep discussion of approaches, using reasoning skills, which is important. Children should be encouraged to explain their thinking and choices at all times, and consider whether this is the most efficient method to use.