**Maths Policy**

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###### Delegate Function: Headteacher

###### Approved by Governors: March 2023

**Updated: Autumn 2022**

###### Review date: Autumn 2024

**Dee Point Primary School Maths Policy**

**Our Aims:**

At Dee Point Primary School, we hope to develop logical reasoning and problem-solving skills, as well as a love of mathematics in our children. Our Maths Curriculum is based on national expectations and uses key resources and guidance from White Rose and the National Centre for Excellence in the Teaching of Mathematics (NCETM). We want each child to apply their mathematical skills into everyday situations and strive to promote these skills through other curriculum areas. In our school, children should feel confident and excited by maths and appreciate that it exists in all areas of life and learning.

**Our Curriculm Intent:**

* To equip children with the skills to become fluent in the foundations of number
* To develop conceptual understanding and the ability to recall key information quickly and accurately
* To provide opportunities to reason and problem-solve in mathematical situations
* To take children on a logical journey through maths concepts by building upon prior learning and encouraging them to spot patterns, links, and connections

**Our Curriculum Implementation:**

* Have inspiring curriculum leadership and ownership, that coaches and supports all members of our teaching team to improve practise and ensure high-quality teaching and learning
* Have a clear progression of knowledge and skill throughout all key stages that supports full curriculum coverage and prepares children to move on with their learning each academic year
* Ensure that there is a balance between group, paired, and independent work for all children, regardless of their ability
* Reinforce key concepts through concrete, pictorial, and abstract challenges in all areas of the maths curriculum
* Use skillful and targeted questioning to encourage children to deepen their understanding of what they are learning
* Focus on fluency, with regular opportunities to revisit and apply these skills to broader problems and challenges
* Deliver inspiring and engaging lessons to promote a love of maths and confidence in their own abilities
* Ensure rigorous assessment (summative and formative) to inform interventions and planning

**Our Curriculum Impact:**

* Children speak positively about their experiences in maths lessons and can explain how they have improved with the support they have been given
* Children of all abilities achieve well given their starting points
* Children are well-prepared for their next steps in life
* Children's trajectory continues to be positive year-on-year
* Children feel confident in tackling a wide-range of problems and are keen to contribute in lessons to demonstrate their understanding
* Parents know exactly what their children are learning through conversations with their children and teachers
* Teachers can pinpoint areas of strength and weakness in each lesson and work on ways to ensure lessons have maximum impact on progress
* Teachers speak positively about their experiences with subject leaders and can explain how they have improved with the support they have been given
* Teachers are inspired to deliver engaging maths lessons and are willing to take risks to enrich children's mathematical experiences

**Units of Work**

Staff should plan each unit of work for maths based on the School Yearly Overview, which was designed to support the recovery curriculum after the Covid-19 pandemic. White Rose Schemes of Learning and NCETM Spines should be used to supplement this. This ensures that different areas of mathematical teaching and learning build up and link together in logical steps across the year. Where necessary, teachers can deviate from the School Yearly Overview if they feel children need more/less time on a particular concept.

All teachers will use the school calculation policy to support children’s learning of four number operations and mental strategies. This can be found in the Maths file under ‘Calculation Policy’.

**Structure of lessons**

**The 5-part lesson structure:**

There are 5 main components to most mathematics lessons (in order):

1. **The Anchor Task**- a problem linked to the key concept of the day, which requires mathematical talk

2. **Journaling**- a response to the problem, which can be verbal, pictorial or written

3. **Reflection and Teacher Modelling**- explicit teaching of the new concept

4. **Guided Practice**- whole class carpet/whiteboard work during which children practise skills

5. **Independent Practice / Guided Groups**- a chance to have a go and apply the concept in different ways

**NB:** *Anchor tasks in KS1 are more flexible. Teachers can use games and group tasks to introduce new concepts rather than formal anchor tasks and journaling. Children can complete verbal journaling, or teachers can scribe for the whole class where they feel it is useful. Whole class journaling will be more of a focus in year 2, leading onto some scaffolded individual journals in summer term.*

**Key fundamentals that should be included in every Maths lesson:**

* Exploration (making connections)
* Mathematical vocabulary (Children are given the opportunity to hear and use key vocabulary)
* Directed questions and thinking time (Guided by the teacher as a way to address misconceptions and make mathematical connections between concepts)
* Practice (Not to be confused with ‘drills’ or learning by rote repetition)
* Carefully designed variation of tasks

**The Maths Classroom**

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| **What you will see:** |
| * A collaborative classroom where pupils are not afraid to make mistakes or provide their thinking * Use of concrete materials, pictorial representations and strong vocabulary * Short-burst teacher input * Pupils agreeing with, building upon, or challenging the thinking of their peers in a structured way * Assessment for learning in lessons * Marking live in lessons (where possible) * Careful conceptual and/or procedural variation in questioning and activities * Teachers and children exploring problems together * Sufficient time given to delve into problems and methods in detail |

**Assessment**

Summative assessment takes place every term for years 1-6. All classes will use NFER tests, apart from Year 6, who will use previous SATs papers. Data will be inputted on Insight and analysed by subject leads and senior leaders. Pupil progress meetings will take place each term, and intervention groups will be developed from these.

Formative assessment should take place on a daily basis, throughout each lesson. How a teacher chooses to record this is up to them. Where possible, marking will take place in lesson, and will be responded to in lesson so that misconceptions can be addressed immediately with children.

**Arithmetic**

Because a significant aspect of the National Curriculum is focussed around children’s acquisition of key arithmetic skills, these must be taught discretely at regular points each half term. In addition to this, children will be given the opportunity to apply arithmetic skills to their learning across different mathematical areas throughout the year.

Teachers can choose to teach one arithmetic skill or a range of skills during an arithmetic lesson, depending upon their assessment of children’s needs. During the arithmetic lesson, children must be given the opportunity to explore the method/s in detail, through both practical resources and written work if applicable. This does not need to be evidenced in books.

Regular assessment of children’s arithmetic skills should be completed through timed tests when teachers feel this is appropriate. It is important to recognise that too much focus on testing takes away time from children’s learning, so arithmetic assessments do not have to be completed weekly. We recommend at least 1 arithmetic assessment per half term. In KS1, teachers can use their own judgement and introduce these where they feel most appropriate.

**Presentation of children’s work and editing**

Children will need to present their work neatly, so that it is legible, using the squares of their maths book.

Children will be given the opportunity to journal their responses to problems independently.

Children will use a ruler where appropriate.

Purple Polishing Pen used in response to assessment for learning.

See Teaching and Learning Policy for the marking process.