



Mathematics Policy

Review Cycle;	Annual
Responsible group:	Head teacher, Maths Subject Leader
Implementation date:	September 2023
Next Review Date:	September 2024

Small steps to big dreams

Mark 4: 30-32

Vision

We aim to provide educational excellence inspired by the world around us. To grow curious, responsible and confident learners within a caring community, in partnership with our families, upholding our Christian Values.

Clearwater Mathematics Policy

Mathematics is integral to all aspects of life and with this in mind, all the staff at Clearwater C of E Primary Academy endeavor to ensure that children develop a positive and enthusiastic “can-do” attitude towards mathematics that will stay with them long after they have finished at Clearwater Academy. Mathematics equips pupils with a uniquely powerful set of tools allowing them to explain a real understanding of everything they do. We are committed to ensuring that all pupils achieve mastery in the key concepts of mathematics, appropriate for their age group. A mastery approach “means a deep, long-term, secure and adaptable understanding of the subject” (Ofsted) avoiding gaps in their understanding that could provide barriers to learning as they move through education.

Lesson Design

At Clearwater, we have developed a “mastery in mathematics” curriculum according to recommendations made by The GlowMaths Hub, the NCTEM. The aim of a mastery curriculum is that all children acquire a deep, long-term, secure and adaptable understanding of the subject. Teachers create long term plans and daily electronic resources influenced by the “can-do maths” online materials. Maths is taught every day across Key stage 1 and Key Stage 2, each lesson is a maximum of 45 minutes long, there are four keys terms which appear in all plans and lessons, these are: Teach it, do it, twist it and solve it.

- **“Teach it”** – time spent as a whole class practically introducing the lessons learning objective, this may be at tables or on the carpet, with or without manipulatives.
- **“Do it”** – All children complete a maximum of 6 simple examples showing that they understand the learning objective.
- **“Twist it”** – Those who showed understanding during the “do it” now complete one, or more, activity/questions to show secure understanding e.g. a misconception to correct, showing what it isn’t. Children are expected to explain their understanding using full sentences and appropriate mathematical language
- **“Solve it”** – Those who again showed understanding during the “twist it” now complete one, or more, problem solving activities/questions which support application of the learning from the lesson and encourages children to use appropriate mathematical language and reasoning. This element of the lesson is to challenge learning and therefore deepen understanding.

Children across the school are familiar with these terms and are able to use them to discuss their learning.

Class teachers and teaching partners play the role of a ‘helicopter’ during the main part of the lessons, meaning they are able to move around more children in the classroom, supporting and stretching children where necessary or forming ‘scoop groups’ to give further input to children who need it.

All children’s work will feature the short date, either written by the child or printed depending on the layout of that particular lesson and age group of the children. All lessons have clear and succinct WALT (we are learning to) which will also appear at the top of children’s work. It is the expectation that all children will work through the “do it” section of the lesson, either independently or as part of a scoop group. Therefore, children’s depth of understanding is shown through the amount of elements completed in that lesson. In addition to this, a manipulatives sticker is used in all Key Stage 1 maths

books to indicate how children have approached different activities and how much support they have required. At Clearwater we appreciate that mathematics also includes elements of exploration, if the aim of the lesson means these four terms are not appropriate there will be an “exploration” lesson planned which may follow a looser format allowing the children to access new ideas in a less structured way.

MOT (Maths On Track) happen daily across throughout the school. These are a 20 minute additional mathematics focus, focusing on deliberate mathematical practice to support children achieving fluency in their mathematics.

Differentiation

At Clearwater Academy we want all children to be appropriately challenged, we give a new opportunity in each lesson for children to demonstrate their understanding and reach their full potential. We therefore begin each mathematics lesson with no pre-conceived ideas as to how much or how little the children will achieve. As stated above all children will take part in both the “teach it” and “do it” sections of the lesson, those who complete these sections will move onto the twist it whilst other children may be supported by the class teacher to focus on the original concept. This method ensures that all children succeed in the lesson and that the teacher is aware of the depth of children’s understanding. A variation sticker is included on each piece of work demonstrating the level of independence shown by the children and what manipulatives, if any, they chose to support them.

We know that making mistakes is an essential part of learning and ensure we provide challenge through rich and sophisticated problems before acceleration through new content.

Assessment

At Clearwater our assessment values knowing ‘why’ as well as knowing ‘what’ and knowing ‘how’. Teachers will regularly assess children’s progress in Mathematics using both formative and summative assessment. At the end of each half term Key Stage One teachers use “remember-it” assessments from the “can-do maths club” to support their teacher knowledge and on-going assessments. As with all core subjects the children’s data for mathematics is recorded on Target Tracker at regular intervals throughout the year.

Early Years Foundation Stage (EYFS)

Mathematics within the EYFS is developed through purposeful, play based experiences and is prioritised throughout the indoor and outdoor provision. Children are involved in two “maths mornings” a week, featuring focused activities, either whole class or group work, allowing children to use the terms “do it, twist it, solve it”. This allows them to develop mathematical language and fully understand the curriculum design and purpose before beginning year one.

Group activities ensure children are exposed to the terms “do it, twist it, solve it” allowing them to fully understand the curriculum design and purpose before beginning year one.