



# Maths Policy

## Spring 2023

<b>AIMS</b>	<p>At Christ the King Primary, we recognise that mathematics is essential to everyday life, and necessary for most forms of employment. Our aim is to provide a solid foundation in mathematical understanding, positive habits of mind and a sense of curiosity and enjoyment in the subject and its application. Our vision is for our students not just to become efficient arithmeticians but also mathematicians, who are resilient problem solvers and can verbalise their reasoning using accurate language. We follow White Rose small steps and modify the LTP overviews. We chose this because of small steps to build learning, its mastery approach, identification of misconceptions, suggested sentence stems and the 3 aspects of the NC are addressed.</p> <p>The National Curriculum aims to develop:</p> <ul style="list-style-type: none"><li>• <b>fluency</b> 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;</li><li>• the ability to <b>reason mathematically</b> by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language;</li><li>• <b>the ability to problem solve</b> by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.</li></ul>
<b>APPROACH</b>	<p>In line with the expectations of the National Curriculum and a mastery approach, we believe that that the majority of pupils will move through the programmes of study at broadly the same pace. Pupils who grasp concepts rapidly, will be challenged through being presented with a variety of in- depth or novel problems rather than acceleration through new content.</p>

To help pupils develop a thorough understanding of concepts, we aim to use concrete and pictorial representations alongside abstract number sentences and computation methods. Integral to our curriculum is problem solving and reasoning. Emphasis is also placed upon developing students' mathematical vocabulary and presenting mathematical justification.

Students work in mixed ability classes, learning the curriculum content of their year group through a variety of engaging tasks and questions. Ongoing flashback of prior learning enables content to be revisited and embedded.

An additional fluency lesson is timetabled in years 3-6 to provide dedicated time to the intentional teaching of calculations, mental strategies and numbersense, including multiplication practice.

Mastering Number is used in EYFS as the main curriculum scheme to ensure small steps in composition, counting and calculation. It is supplemented with the EYFS White Rose scheme for additional work on shape, space, pattern and measure which is also evident in provision.

Mastering number is used in Y1 as a warm up to the maths lesson and in Y2 as additional fluency sessions.

**CONTENT AND RESOURCES**

Teachers follow the White Rose long term plan and White Rose small steps guidance to develop varied fluency, problem solving and reasoning tasks. Primary Stars materials, that link to the White Rose small steps are used in years 1 and 2. Further resources include: Classroom Secrets, NRICH, NCETM, and 'I See Reasoning and Problem Solving' (Gareth Metcalfe) as well as materials by Tara Loughran.

The Mastering Numbers Project in conjunction with NCETM and the Wirral Maths Hub aims to develop numbersense in FS2-Y2, using the Rekenrek as a representation. Ten Frames, Numberlines, Part/ Whole models and Numicon are the main representations used across the school.

	<p>Online resources include <i>Mathletics</i> to reinforce and practise skills and concepts and <i>TT Rockstars</i> to practise multiplication. The White Rose One Minute app provides practice at subitising and the four operations for students in KS1 and Lower KS2.</p> <p>Working walls are utilised and updated in accordance with the area of maths being taught. Maths equipment and resources are accessible to pupils during lessons.</p>
<b>ACCESSIBILITY AND SEND</b>	<p>The majority of students are taught as a whole class. Adaptations are made for students with SEN to access their year group curriculum. This may involve differentiated questioning, additional resources, manipulatives, more scaffolding and support. Pre teaching may be used to cue in students to key vocabulary and structures and keep up interventions to provide students with additional support based on AfL in the lesson. Numberstacks is the main intervention used to support students with number relationships and facts, including fractions and decimals. On rare occasions, a student may need personalised targets outside of their year group curriculum and may work 1:1 or in a small group after class input.</p>
<b>EYFS</b>	<p>Through directed lessons involving Mastering Number, small group work and activities in provision, the requirements of the educational programmes in the statutory framework for the Early Years Foundation Stage (EYFS 2021) will be addressed. We aim for children to develop a strong grounding in number so that they have the building blocks for mathematical thinking. Rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures will be built in. At CTK it is important that young children develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, and 'have a go'.</p>
<b>TIME ALLOCATION</b>	<p>Each year group from years 2-6 receives 1 hour of maths instruction five times per week and fluency sessions per week. In Year 1 there is 4.5 hours of maths per week. In FS2 there is a daily whole class maths lesson followed by targeted group work and provision.</p>
<b>HOMEWORK</b>	<p>Students in Years 1-6 receive bi-weekly maths homework. This is usually a written homework but may include a <i>Mathletics</i> task to reinforce learning.</p>

<p><b>ASSESSMENT</b></p>	<p>Maths work is marked in accordance with our marking and feedback policy.</p> <p>Formative assessment, which is carried out informally throughout the year, enables teachers to identify pupils' understanding of subjects and inform their immediate lesson planning.</p> <p>NTS summative assessments are used at the end of each term in Years 1-5 to gain a standardised score against which to track our students against national scores. Past KS2 SATs papers are used for summative assessment and progress against national standards in Year 6. White Rose end of unit assessment questions are used to determine understanding of each unit in Years 1-6.</p> <p>Progress against Development Matters statements 2021 will be used in EYFS to monitor progress and inform practice. An EYFS Profile will be completed for each pupil in the final term of the year in which they reach age five.</p> <p>Parents will be provided with either a written or verbal report (Parents evening) about their child's progress termly. These will include information on attitude to work and attainment.</p> <p>The progress of pupils with SEND will be monitored by the SENCO and Maths Subject leader. The NTS scale produced by NTS assessments is used to monitor smaller steps of progress within maths.</p>
<p><b>MONITORING AND REVIEW</b></p>	<p>This policy will be reviewed on a bi-annual basis by the subject leader.</p> <p>The subject leader will monitor teaching and learning ensuring that the content of the national curriculum is covered across all phases of pupils' education.</p> <p>The Curriculum committee of the governing body is briefed to oversee the teaching of maths, and meets termly with the subject leader to review progress.</p> <p>Any changes made to this policy will be communicated to all teaching staff.</p>

Date policy last reviewed: March 2023

Signed by:  \_\_\_\_\_

Headteacher

Date: 13/03/2023

Signed by:  \_\_\_\_\_

Chair of governors

Date: 13/03/2023