

Camblesforth Community Primary Academy:

Maths Policy

Camblesforth Primary Aims

Camblesforth Community Primary Academy believes that:

Mathematics is a creative and highly interconnected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

In line with the national curriculum for mathematics, Camblesforth's aims are to ensure that all pupils:

- 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.
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can solve problems by applying their mathematics to a variety of routine and nonroutine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

Our aims for all children are:

- ALL pupils access a broad and balanced maths curriculum
- To present maths as an exciting, challenging, creative and applicable subject
- To ensure that all children can achieve their full potential in mathematics
- Develop strong foundational knowledge of mental strategies to enhance their reasoning and problem solving skills
- Ensure that pupils become resilient and reflective learners

Our Maths aims are supported by our Key Development Priorities on our School Development Plan.

SECTIONS	SUMMARY EVALUATION
KEY DEVELOPMENT PRIORITIES 2023-2024	<ul style="list-style-type: none">● Strategic Priority One: To effectively plan CPD and deliver a bespoke Personal development plan for individual staff which fits inline with systems at school level and across Ebor.● Strategic Priority Two: To refine assessment strategies to fit inline with Pixl and development of therapies to close attainment gaps particularly in Maths.

Summary of Intent

Our goal is to provide a high-quality mathematics education that fosters a deep understanding and love of the subject among our pupils. To achieve this, we:

- **Ensure a Mastery Approach:** We have adopted a mastery approach to teaching mathematics, which means providing all pupils with the opportunity to achieve a deep understanding of mathematical concepts, knowledge, and processes. This will be achieved through careful sequencing of topics, regular assessment, and providing extra support for those who need it.
- **Encourage Mathematical Thinking:** We encourage our pupils to develop a positive attitude towards mathematics and to think flexibly, critically and creatively. We use open-ended questions and activities to stimulate their curiosity and to help them to develop reasoning and problem-solving skills.
- **Use Real-life Contexts:** We ensure that the mathematics taught in our school is rooted in real-life contexts so that our pupils can see the relevance and importance of the subject. We provide opportunities for pupils to apply their mathematical knowledge and skills to real-life situations and to use technology to enhance their understanding. We provide opportunities for pupils to work collaboratively, as well as independently, to develop their communication and team-working skills as well as providing opportunities to use maths across the curriculum.
- **Coherent Curriculum:** Our inclusive, sequential curriculum ensures all pupils can access lessons which are appropriately scaffolded to meet the individual needs of learners through adaptive teaching (including pupils with SEND). This ensures that each child is challenged and supported to achieve their full potential.
- **Develop Fluency:** We develop our pupils' foundational knowledge of mathematics, including number, geometry, measurement and statistics. We ensure that our pupils have a solid understanding in these areas, which will enable them to become fluent, confident mathematicians.
- **Develop Mathematical Talk:** We optimise opportunities for pupils to rehearse and use precise mathematical vocabulary through stem sentences, ABC question and answer techniques and paired/group discussions. This will enable pupils to reason confidently whilst being actively engaged learners.

By following these principles, our primary school's mathematics program will provide our pupils with a rich and rewarding mathematical education, one that prepares them well for the challenges of secondary school and beyond.

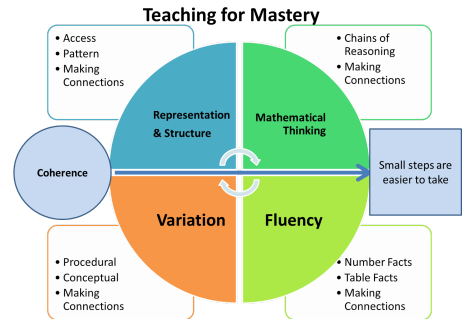
Learning

Lessons follow a flexible, teaching for mastery approach, rooted in the 5 big ideas.

In KS1 and KS2, children are paired together in ‘talk partners’ so they can verbalise, and share their mathematical thinking whilst encouraging each other to learn.

The teaching at Camblesforth provides opportunities for:

- Whole class work
- Group work
- Paired work
- Individual work
- groupings/individual work with a teacher or teaching assistant.



Planning

EYFS

A Long Term Planning Framework has been developed to teach the Early Learning Goals through the [Development Matters Non-Statutory Guidance](#) and the [NCETM 6 Key Areas for Early Mathematics Learning](#). Maths is taught daily with another, 5-10 minute session, 4 times a week of the [NCETM Mastering Number Programme](#). Opportunities to consolidate and further develop mathematical understanding is embedded throughout continuous provision and enhancements.

The cover of the 'Camblesforth EYFS Mathematics Curriculum Overview Resource' for 2022-2023 features the EBOR Academy Trust logo and five colorful cartoon characters representing the numbers 1 through 5. The title is prominently displayed in the center.

Number				
Suggested Teaching Timetable & Activities				
Session 1 Introduce the Numberblock 1. One class to which number we are meeting (I have this amount of food it is one that you know) Recast the Numberblock house with nobody inside. Children to do one snack on the door. Numberblock one to appear and all of the class to do a one wave. He has a special video to show to the class. Link to Numberblock Video . Pause throughout and discuss what you notice in pairs. Encourage the children to show one within the area.	Session 2 Recast number from yesterday. Represent the number in different ways (jump, clap etc) Introduce stem sentence and vocabulary (I can see one.) Display 'One world' where only one can go inside (picture of one). Display mistakes. Children to identify one and correct mistakes. Introduce one numeral on the door in the world.	Session 3 Children to represent one using a variety of objects (one chair, one pencil etc). Explore how it's still one. Can they see one in our room (furniture or objects) (Adult to introduce a chair why is this one). Child one class object class.	Session 4 Explore different ways we can represent one. Use whiteboard to discuss what we already know about one. Show on fingers, draw, actions, objects. Show the children a fern, and explore it.	Session 5 Recast the number block, we have been looking at this week. Children go to tables with a piece of paper and show off everything they have learnt about the number one. Can they draw one, show one.
Session 1 Four sets of 10 and becomes a 20 shape. Watch the other child. Name four as a house when someone says 'one' three groups. 'one together' when someone says 'four' (repeat) Introduce the language of size and count. 'size' and 'count'. Count the size and count of the different shapes. Size is a language different to a shape? Play counting and adding the size between four sets of shapes. Some shapes have more than four size, can the children name it?	Session 2 Have a short task about the classroom, outdoor area and the school. Recast the names of some of the things we met yesterday in pairs. Show the children some of the shapes (one, two, three) and recast the language of size and count. On the shape wall ask children to spot, name and describe area 20 shapes around the environment. Encourage use of terms: more, all you can do, less, some, pieces of your shape will be okay and when to be found.	Session 3 Have a short task about the classroom, outdoor area and the school. Recast the names of some of the things we met yesterday in pairs. Show the children some of the shapes (one, two, three) and recast the language of size and count. On the shape wall ask children to spot, name and describe area 20 shapes around the environment. Encourage use of terms: more, all you can do, less, some, pieces of your shape will be okay and when to be found.	Session 4 Have some 20 shapes: one, two, three, four and five. Use mathematical vocabulary to describe 20 shapes, size and count.	Session 5 Have some 20 shapes: one, two, three, four and five. Use mathematical vocabulary to describe 20 shapes, size and count.
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KS1 and KS2

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Long Term planning frameworks for Years 1-6 have been adapted from the [NCETM Curriculum Prioritisation](#) learning sequence, which is based upon the [DfE Ready to Progress Criteria](#).



This resource provides coherent sequencing for the primary maths curriculum. It draws together the DfE guidance on curriculum prioritisation, with the high quality professional development and classroom resources provided by the NCETM Primary Mastery PD materials; we have adapted the planning where necessary to suit our mixed-age setting.

Year 1	NCETM Year 1 planning	Year 1 LTP
Year 2	NCETM Year 2 planning	Year 2 LTP
Year 3	NCETM year 3/4 planning on a 2 year rolling programme.	Year 3 / 4 LTP Year A
Year 4		Year 3 / 4 LTP Year B
Year 5	NCETM year 5/6 planning on a 2 year rolling programme.	Year 5 / 6 LTP Year A
Year 6		Year 5 / 6 LTP Year B

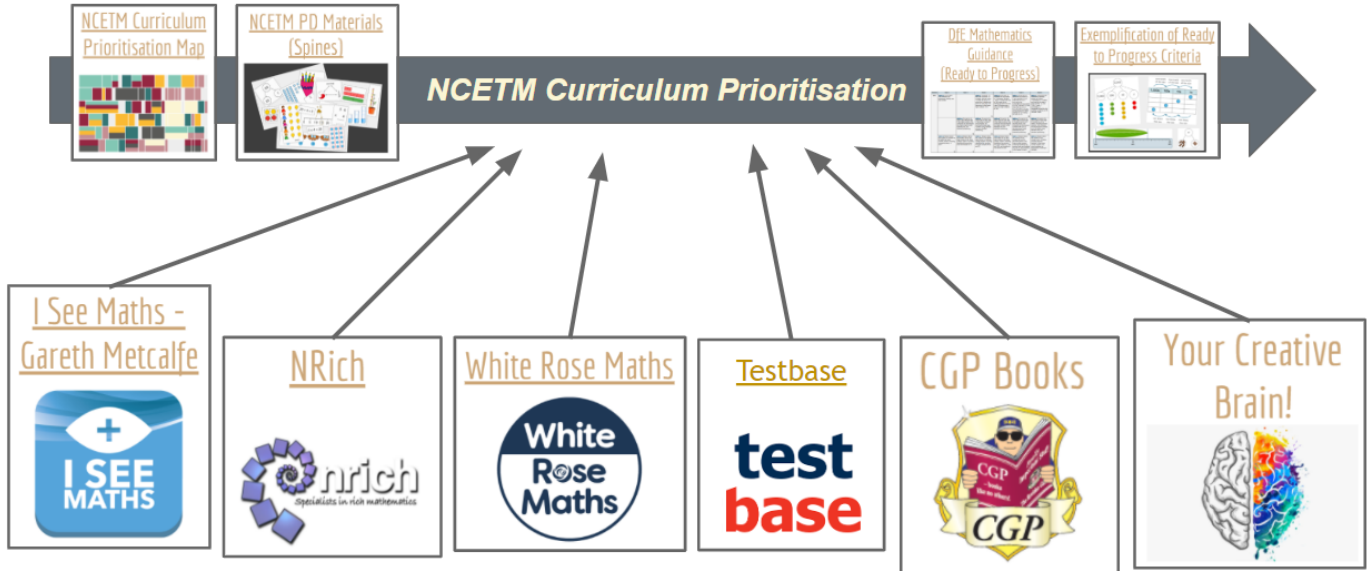
Medium term plans provide strong learning outcomes within each unit and the pace of delivery is dependent on the needs of the children. Each small learning step builds carefully from the previous step, building on pupils' prior knowledge to develop new skills.

Resources

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The NCETM Curriculum resources provide the key small steps, representations and language to be used whilst teaching, further questions and investigations are also be used from various sources.



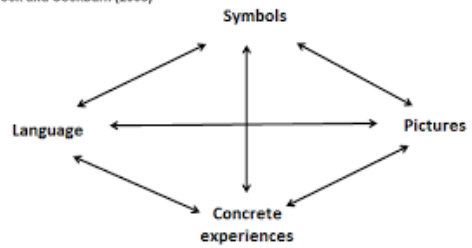
Camblesforth pupils also use online platforms such as:



Features of our maths lessons

Representations are used to reveal the structure of mathematical concepts, linked carefully with precise mathematical vocabulary and the abstract written form.

Haylock and Cockburn (2008)



High order questioning and reasoning questions stems are used throughout lessons to ensure all pupils have the opportunity to think in greater depth around a concept and make mathematical connections.

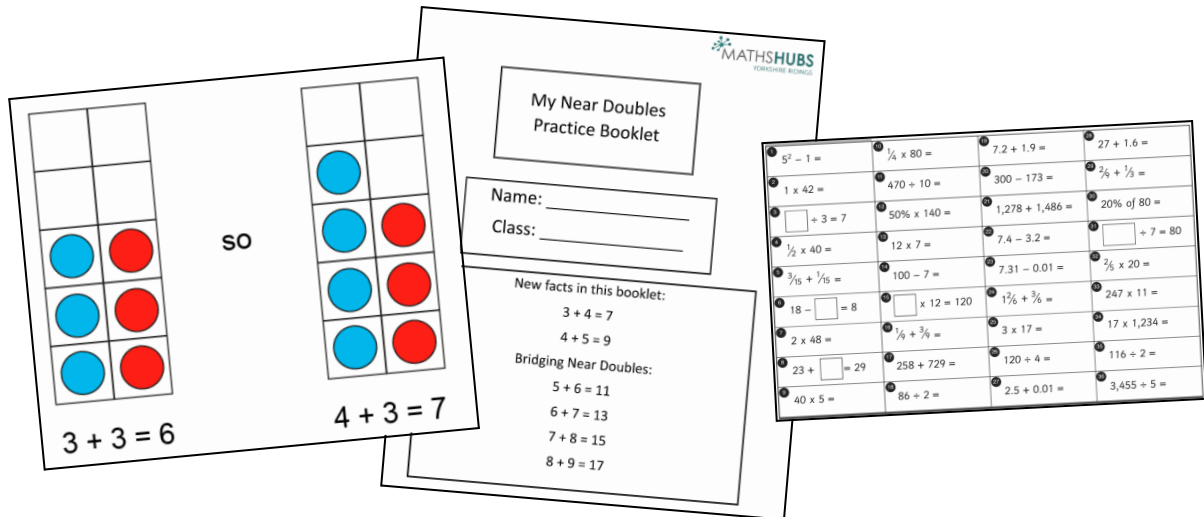
Foundational Fluency

Foundational Fluency Sessions

- These are 10 minute sessions taught separately to the main Mathematics lesson.
- Daily foundational fluency sessions give pupils the opportunity to learn foundational knowledge to automaticity and practise prior knowledge.
- [Camblesforth Primary Academy: RTP and Foundational Fluency Facts: Y1-6](#)

EYFS	Mastering Number (4x a week)	In EYFS, children learn the composition of numbers within 10.
KS1	Mastering Number (4x a week)	In KS1, children learn the composition of numbers within 20 and the structures of addition and subtraction, to develop a good 'sense of number' through the NCETM Mastering Number Programme.
LKS2	Additive Facts and Times Tables	In LKS2, children learn times tables to automaticity. <i>(The conceptual understanding of knowledge practised in these sessions has been taught previously in main maths lessons, with the aim in these sessions to learn declarative facts to reduce cognitive overload whilst accessing further concepts.)</i>
UPKS2	Targeted procedural fluency practice and revision of prior knowledge.	In UPKS2 children learn derived additive and multiplicative facts, and apply these within procedures to build automaticity.

- Planning for long term memory also includes regular spaced, interleaved retrieval tasks such as 'Fluent in 5' – a series of questions taken from previous learning, and NCETM 'Ready to Progress Criteria' to embed strategies or link learning from previous year groups to the new learning.



Assessment

Assessment is regarded as an integral part of teaching and learning at Camblesforth Primary Academy. We believe that assessment is a continuous process, used to identify gaps in pupils' understanding to ensure that no child is left behind.

Formative Assessment and Marking

Formative Assessment will take place before, during and after the point of learning through various different methods. During lessons, teachers and TAs will work together to assess the individual pupils to ascertain who has grasped the intended learning and who requires further support, instruction or intervention. This is done in a number of ways:

- Live marking - Teachers and Support Staff will be able to identify correct answers and misconceptions during the 'Independent Work' phase of the lesson with a green pen and address errors with a purple pen.
- Peer marking - Pupils are given the opportunities to work with each other to find solutions and offer alternative methods to an answer with a purple pen.
- Reasoning bubbles to deepen thinking - the use of reasoning bubbles allows pupils to reflect on their own thinking, understanding how their knowledge can be applied to a range of situations and contexts. This allows pupils opportunities to develop their conditional knowledge through reasoning.
- Marking and feedback - Staff have the opportunity to provide children with low-stake assessments at the end of each unit. The ready to progress criteria have been mapped out for each year group and teachers can assess against the appropriate ready to progress criteria at the end of each unit to gauge understanding.

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Ready to Progress Criteria

Throughout the teaching sequence, the [DfE Ready to Progress Criteria](#) are used to assess pupil's understanding of taught content. We combine the RTP with key Foundational Fluency Facts to ensure pupils are secure in key knowledge within each year group.

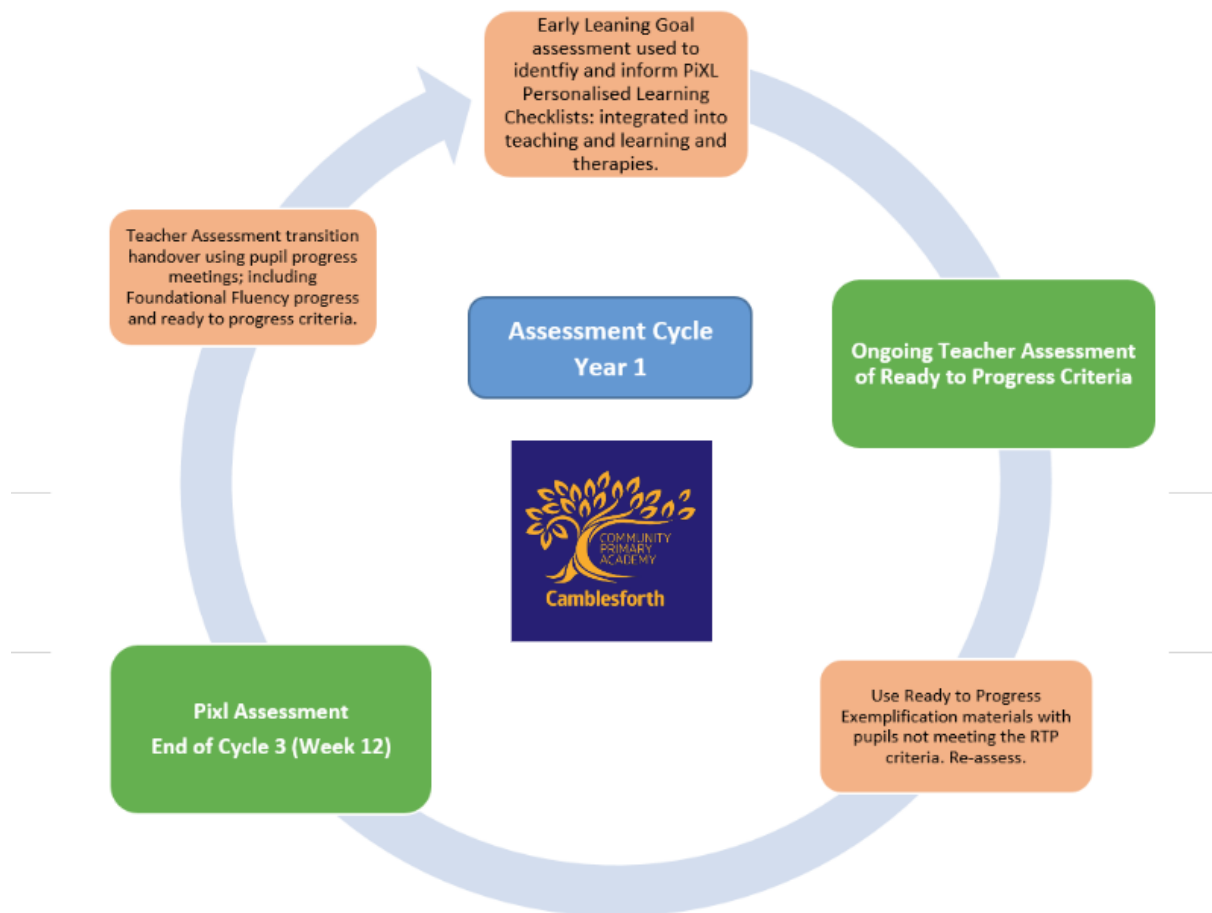
[Camblesforth Primary Academy: RTP and Foundational Fluency Facts: Y1-6](#)

Summative Assessment

Pupils are assessed at the end of each teaching cycle. Question Level Analysis and formative assessments are used carefully to ensure each child progresses towards end of year expectations. If pupils need further support, [RTP Exemplification materials](#) and PixL Therapies are identified and delivered in a timely manner.

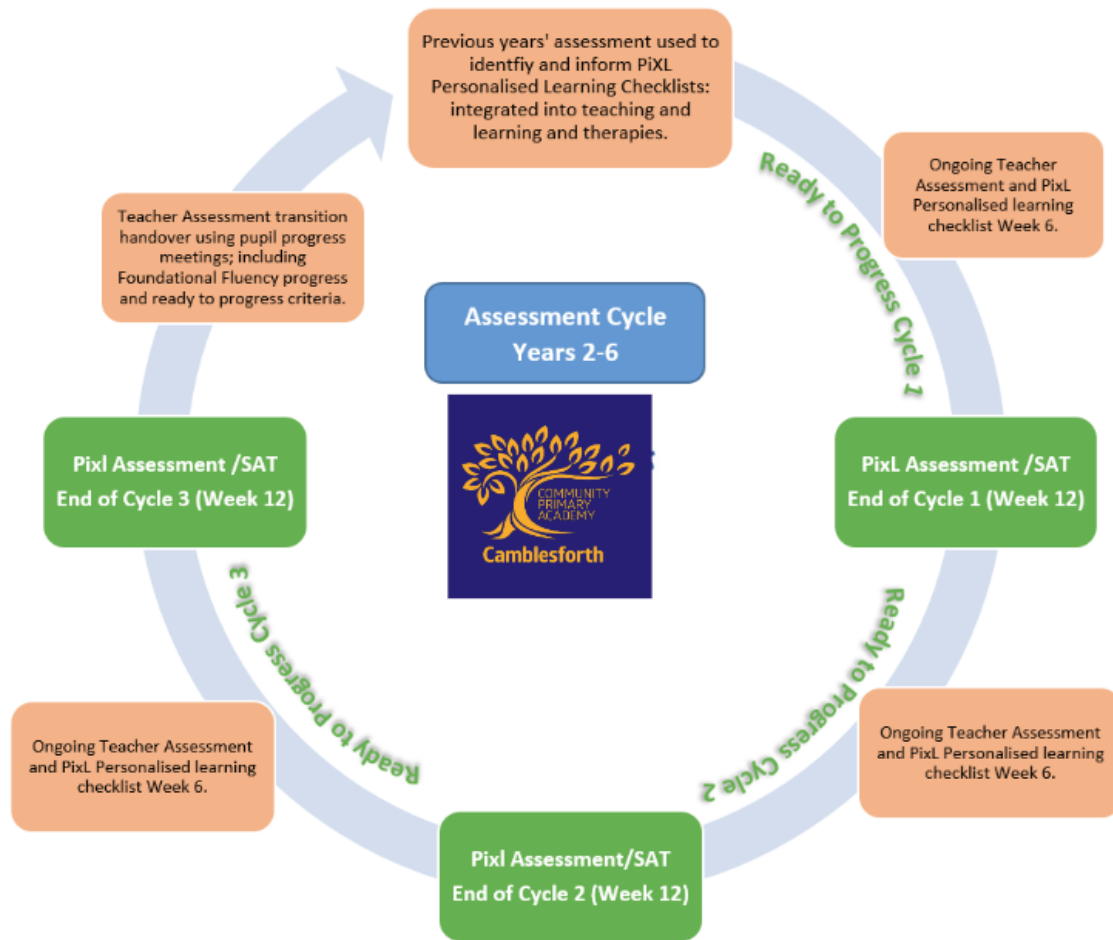
Early Years	Y2 and Y6	Y1,3,4,5
ELG's assessed at the end of each year (drawn on formative assessments taken place throughout the year).	3x SATs papers using PixL QLA	3x PIXL papers using QLA

Summative Assessment Cycle



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Homework

At Camblesforth Community Primary Academy, homework is actively encouraged to be completed in small, manageable steps.

EYFS	Parents receive a weekly update with what is being covered in the Maths lesson that week to help consolidate at home.
Key Stage 1	Number Gym 5 x a week
Years 3 & 4	Number Gym and timestables.co.uk 5 x a week
Years 5 & 6	Number Gym 5 x a week Some children may be set additional work on occasion

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CPD

Continuous professional development is highly regarded as essential at Camblesforth Community Primary Academy. We seek opportunities to progress our teaching and learning team by enrolling leaders and facilitators on regular external professional development opportunities, as well as in-house training delivered by Maths lead. The NCETM Yorkshire Ridings Maths Hub provides a plethora of ongoing, sustained CPD opportunities for staff and the school fully supports the development requirements of our team. In addition to this, professional development materials are available for staff via The National College to access so that they can evolve their teaching practice continuously.

Resources

Pupils are actively encouraged to access resources during Maths lessons with each classroom containing a designated 'Maths Area'. Teachers model to pupils how to use these resources effectively to solve problems and deepen their understanding. By Year 6, pupils should be independently self-reflecting on their learning to decide if they require the use of practical resources to aid their learning.

SEND/ Inclusion

Camblesforth Community Primary Academy is an inclusive school that allows pupils of all learning styles and needs to access the curriculum. Teachers carefully plan lessons to accommodate pupils with special educational needs or disabilities so that the pupil(s) develop confidence in Mathematics and foster a love of learning. Support staff are deployed effectively to assist pupils who require additional support and our range of representative structures cater to a variety of learning styles.