

Gainford CE Primary and Preschool

Gainford CE Primary and Preschool is a semi-rural school set between Darlington and Barnard Castle at the centre of our local community. Education at Gainford is about more than just academic achievement; it is about developing young people who can flourish in all areas of their lives developing the intellectual, spiritual, moral and physical attributes, becoming proud and respectful members of our community. Our deeply Christian ethos and values are central to the experiences our children have each day .

We aim to provide an enriched, creative curriculum which instils a love of learning in all our children and helps them to move onto secondary education with the skills, knowledge and understanding that will enable them to thrive, and become positive citizens of the future within their community and the wider world

As a school, we actively promote the spiritual, moral, cultural, mental and physical qualities of all our children. Governors and staff at school believe the personal development of pupils, spiritually, morally, socially and culturally plays a significant part in their ability to learn and achieve. We therefore aim to provide an education that provides children with opportunities to explore and develop their own values and beliefs, spiritual awareness, high standards of personal behaviour, a positive caring attitude towards other people, an understanding of their social and cultural traditions and an appreciation of the diversity and richness of other cultures. This is embedded throughout all aspects of school life through the use of our eight core Christian values which underpin our school curriculum and are lived out in our daily actions

'Together we love, learn and flourish'

We worked together on our values .Look out of them in everything that we do.

Caring - We care for each other and the world around us .

Supportive - We help each other to be the best we can be .

Inclusive- We value everyone

Respectful-We treat others how we would like to be treated ourselves .

Forgiving - We understand that we can all make mistakes

Honest -We are truthful to ourselves and to other people

Thankful - We are grateful for all of God's gifts

Courageous - We face our fears together and aim high

Our curriculum is geared towards our goal of ensuring that our pupils are ready because the school firstly teaches and embeds the required knowledge and skills at each year group level, and then provides each child with the opportunity to apply what they have been taught.

Our school offers a broad, balanced and differentiated curriculum covering all areas of the National Curriculum and our aim is to provide a curriculum that meets the needs, interests and abilities of all children. We do our utmost to maximise success for all children by giving them the best teaching and learning experiences.

'Mathematics is effectively learned only by experimenting, questioning, reflecting, discovering, inventing and discussing. Thus, for children, mathematics should be a kind of learning which requires a minimum of factual knowledge and a great deal of experience in dealing with situations using particular kinds of thinking skills.' *Better Mathematics (HMSO 1987)*

'How maths links to the ethos and values of Gainford CE Primary and Preschool

Education at Gainford is about more than just academic achievement; it is about developing young people who can flourish in all areas of their lives developing the intellectual, spiritual, moral and physical attributes, becoming proud and respectful members of our community. Our deeply Christian ethos and values are central to the experiences our children have each day. 'Together we Love, Learn and Flourish' encapsulates what we strive to achieve in our daily activities and our maths sessions give every opportunity for this to be lived out.

Our maths curriculum is geared towards our goal of ensuring that our pupils' 'Together we love learn and flourish' because the school firstly teaches and embeds the required knowledge and skills at each year group level, and then provides each child with the opportunity to apply what they have been taught. Studying mathematics at Gainford, stimulates curiosity, fosters creativity and equips children with the skills they need in life beyond school. Staff carefully plan maths activities which nurture individuals in order that they may reach their true potential.

A character education

Through our maths curriculum, we intend to develop pupils' character; children who are motivated to be the best that they can be, and pupils' resilience; children who have the ability to learn from mistakes to improve. Pupils are encouraged to be reflective learners by developing their mathematical vocabulary to explain their thinking, recognising that through making mistakes, deeper learning can take place. Increased confidence through a growth mindset approach enables pupils to 'have a go', to be excited by challenge and persevere to work to learn something new. Staff offer positive verbal encouragement to improve children's resilience and provide regular opportunities to practise skills and work collaboratively in order to develop confidence, tolerance and respect.

Our vision for Maths

Our vision and aims are aligned with the National Curriculum. The **intent** of our mathematics curriculum at Gainford CE Primary is to design a curriculum, which is accessible to all and will maximise the development of every child's ability and academic achievement. Teachers deliver lessons that are creative and engaging. We want our children to make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. We intend for our pupils to be able to apply their mathematical knowledge to science and other subjects. We want them to know that it is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment.

As our pupils' progress, we intend for our pupils to be able to understand the world, have the ability to reason mathematically, have an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

The **aims** of our Mathematics curriculum at Gainford CE Primary are that all learners:

- 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 non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

Curriculum design

How do we teach Maths at Gainford?

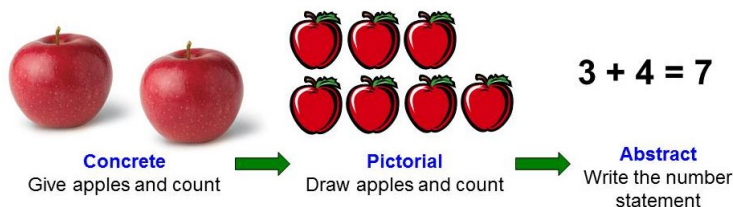
Mathematics is dependent on pupils being able to find, organise and analyse relevant information. Explicitly teaching reading skills to do this helps pupils to process information more effectively. Many able readers find reading tasks in mathematics demanding because of the complexity of the reading that they are required to do. Teachers use a range of teaching strategies to help develop pupils' reading skills in mathematics at Gainford Primary. Reinforcing the idea that a piece of mathematics text needs to make sense (and that it can make sense) is exceedingly important. One useful teaching strategy is modelling the process of reading in mathematics: teachers model their thinking out loud as they read, explaining vocabulary to be able to figure out what a question is asking them to do, connecting the text to their prior knowledge and building on such knowledge.

At Gainford Primary, we use the White Rose Maths to support teaching and learning. EYFS use Ten Town to help support their learning – a unique early year's numeracy scheme designed to improve number recognition and formation of numbers to 20. Teaching and learning in maths follows a CPA approach. Following these three vital steps (Concrete, Pictorial, Abstract) helps pupils to develop their understanding of a concept. Access to concrete resources where appropriate to scaffold learning, helps to deepen conceptual understanding.

'Real things and structured images enables pupils to understand the abstract.' (D. Morgan 2016)

CPA approach	
Stage	Characteristics
Concrete	Refers to the use of manipulatives, measuring tools or objects that the student handles.
Pictorial	Refers to the use of drawings, diagrams, charts or graphs that the student draws.
Abstract	Refers to abstract representations such as numbers and letters that the student writes.

E.g. Tom had 3 apples. His mother gave him 4 more apples. How many apples did he have altogether?



Maths skills and knowledge taught for each year group

The NCETM National Curriculum Progression Maps set out the objectives to be covered in each year group.

- | | |
|---|-----------|
| 1) Number : Number and place value | Years 1-6 |
| 2) Number: Addition and subtraction | Years 1-6 |
| 3) Number: Multiplication and division | Years 1-6 |
| 4) Number: Fractions (including decimals and percentages) | Years 1-6 |
| 5) Ratio and proportion | Year 6 |

6) Algebra	Years 1-6
7) Measurement	Years 1-6
8) Geometry: Properties of shapes	Years 1-6
9) Geometry: Position and direction	Years 1-6
10) Statistics	Years 2-6

Teachers at Green Lane use a variety of resources to support the teaching and learning of maths.:

- ❖ Numicon
- ❖ Ten Town
- ❖ White Rose Maths
- ❖ My Maths
- ❖ Twinkl
- ❖ Maths Shed
- ❖ NRich

Measuring impact

The **impact** of our Mathematics curriculum at Gainford CE Primary is that by the end of each learning journey, the vast majority of pupils have sustained mastery of the content, that is, they show a good recall and fluency for their appropriate stage. This means that they are able to use what they have learnt across other learning areas. Some pupils will have a greater depth of understanding. We track progress carefully to ensure pupils are on track to reach the required expectations. Individual pupil progress is monitored through the use of the school's internal assessment for each of the stages We also believe that pupil voice is a very useful tool for assessment. By asking pupils questions such as what they enjoyed and what they learnt, we are able to view the impact of their learning experiences. Progress and attainment are tracked and monitored and discussed in staff meetings with interventions put in place when required.