Carnagill Community Primary School

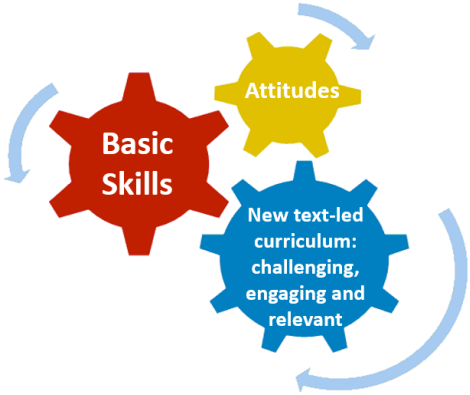
Science Policy Document

At Carnagill School, our curriculum is built around the attitudes and values of independence, curiosity, aspiration, commitment, kindness and pride. Our school motto of 'Inspiring Bright Futures Together' demonstrates our commitment to developing the whole child so that they can succeed in life. Mental health and well-being is a key driver in restoring our school community after the disruption of the pandemic.

Curriculum Intent

At Carnagill School, we believe that the curriculum we offer our children will:

- Respond to the shifting needs of our changing and diverse community
- Have high quality and engaging learning opportunities
- Be practical, flexible and provide real life experiences
- Develop the whole child – social, emotional, moral and spiritual development
- Promote positive well-being and develop resilience and emotional regulation
- Develop an understanding of their place in their community and in the world
- Be knowledge and skills based which will prepare the children for life
- Create a lifelong love of learning



Through our Science curriculum we aim to deliver a curriculum which is accessible to all and that will maximise the outcomes for every child so that they develop lifelong skills and knowledge.

We believe that our Science curriculum encourages our pupils to increase their enjoyment and enthusiasm of Science while showing their independence, curiosity and commitment to working scientifically.

Our children will also develop the skills of observing, predicting, investigating and communicating through practical, hands on, real life experiences which will prepare our students for the world.

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Basic Skills and Attitudes across the Curriculum

The quality of education is underpinned by:

Basic Skills	Attitudes
Talk Vocabulary Handwriting Spelling and grammar Arithmetic (as appropriate)	Independence Curiosity Pride Aspiration Commitment Kindness

Intent

We want our children to be happy, independent and curious Scientists who make connections with the world around them and develop as inquisitive, respectful and aspirational individuals.

Our Science curriculum aims to embed key knowledge and skills and enables children to develop the skills of prediction, hypothesising, experimentation, investigation, observation and interpretation.

Over time we want our children to develop their knowledge of Science and working scientifically, so that they know more, remember more and understand more as they move through school.

We aim to use Science as a key driver to develop pupils' skills as readers, writers, mathematicians and higher order thinkers.

Implementation

Curriculum design:

The Science National Curriculum is taught through practical experiences, which are carried out in a respectful and safe manner.
Our children will access one and a half hours of discrete Science teaching each week as well as linking their scientific work with other subjects.

Key Questions: Science lessons are taught through exciting and engaging lessons driven by a 'Key question' as part of each lessons learning objective. Key Questions are recorded in the children's Science books as the learning objective

Knowledge:

Key skills and knowledge is a high priority at Carnagill. We have selected the key skills and knowledge from the National Curriculum and the children are assessed on these using Science books and formative and summative teacher assessments.
Our children will be inspired to develop their own curiosities about the world.
Our children will be equipped with the scientific knowledge to develop an appreciation of scientific contributions to all aspects of everyday life, by looking at other STEM subjects and careers in Science.
Children at Carnagill are encouraged to link their science work with our school half termly attitudes.

Children will develop their essential working scientific enquiry skills, which will deepen their scientific knowledge. These are:
Observing over time
Pattern seeking
Identifying, classifying and grouping
Comparative and Fair testing
Researching
Exploring

Teaching:

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Our children will progress through the year by following the North Yorkshire planned scheme or work, which will provide children with a greater understanding of the concepts and knowledge of Science. Through following this scheme, progression will be evident throughout each year and Key Stage.
Children at Carnagill will be exposed to scientific visits, visitors and half termly events to support the development of their knowledge and aspirations.
Children will study the features of our school and local environment to aid them with their scientific enquiry.
Staff have consistently high expectations of what each child can achieve.

In our lessons you will see:

- Engaged students, that ask and answer appropriate scientific questions using their scientific vocabulary
- Practical investigations
- Cross curricular learning
- Progression through a lesson and unit of work
- Children talking about and using a range of working scientifically skills
- Children understanding scientific concepts and being exposed to challenge as well as challenging themselves

In our books you will see:

- A range of evidence of their scientific work including, video links, photographs of practical work, post it notes, questions…
- Differentiation
- Challenge
- Neatly presented work with clear learning objectives (Key Questions)

In our environment you will see:

- Progression on working walls
- Links to the working scientifically superheroes
- Key knowledge and terminology
- Lessons taking place inside and outside the classroom
- Happy, resilient, curious and independent learners
- Science work that makes links with everyday life
- Strong aspirations from staff and children

Vocabulary Development:
Vocabulary and the development of vocabulary is at the heart of our curriculum and is key to our Science curriculum. Each unit of work and lesson will provide children with the new vocabulary that will be used and embedded over time. Staff use vocabulary matched to their scientific enquiry and topic each half term.
Our children will be introduced to, and learn the different types of enquiry for working scientifically, and be able to use these and talk about them. Children will be confident in using this vocabulary and apply this in other curriculum areas where possible. Teachers have high expectations and encourage the use of this vocabulary at every opportunity.

Impact
Children will:
Know more, remember more and understand more.
Make progress through a sequence of learning.
Reflect on their progress through Science and be proud of their scientific achievements.
Be able to use relevant vocabulary to ask and answer specific scientific questions with confidence.
Children will be independent and motivated thinkers who are inspired to find out more about the world and they way things work.
As scientists our children will learn lessons from Science to influence the decisions they make in their lives now and in the future.

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Expectations

EYFS

I am curious about the world around me.	
I can ask simple questions.	I share my observations about the world around me and I can share what I have found out.
I show care for the world and the people and animals in it.	

Year 1

I can explore scientifically to find the answer to a question.	
I can make simple predictions.	I can talk about fair and unfair.
I can talk about what I have found out.	

Year 2

I can carry out simple investigations to find the answer to a question.	
I can make simple predictions and give a reason why.	I am beginning to recognise what makes a fair test.
I can talk about my findings giving reasons why using because.	

LKS2

I can make a prediction with a reasonable reason.	
I can set up a fair test with only one variable.	I can give evidence when writing a simple conclusion
I can securely classify animals. I can name plants and parts of plant confidently.	

UKS2

I can make educated predictions based on previous knowledge.	
I can plan and conduct my own experiments.	I can decide how I can represent my findings.
I can give a range of evidence when writing a conclusion.	