Science at Gaskell Primary School

Intent:
To give children a Science curriculum which enables them to confidently explore and discover the world around them so that they have a deeper understanding of the world they live in through pupil led investigations.

Why do at children at Gaskell Primary School need to study Science?

By experiencing Science, our children will understand how things and systems work. Wider life experiences are limited in our school context and Science will give the children the chance to be adventurous. By understanding how systems and processes work, they will gain the knowledge and skills to see how our world works. Children will have the opportunity to gain confidence through pupil led investigations and experiences. They will learn about some of the current global issues effecting the world and the part they play in this to make the world a better place in the future.

What are the aims for the Science Curriculum?

- To be able to use the language of Science to describe processes and systems within our world.
- To be able to use a range of Science resources confidently to answer, investigate and evaluate scientific questions.
- To be given plenty opportunities to apply the skills and knowledge learnt through Science topics into the real world

The National Curriculum for Science aims to ensure that all pupils:

- Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.
- Develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them.
- Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.

What values and drivers underpin the current curriculum content?
At Gaskell we have key values and drivers which support our children ***'to become successful citizens in today and tomorrow's world'.*** In Science we show:

Happiness: We show great enjoyment when carrying out different investigations.
Empathy: We have an understanding of current local, national and global issues and how it affects us and others.
Ambition: We aspire to investigate scientific hypotheses through pupil lead investigations.
Respect: We respect our local community, wider community and the world around us.
Resilience: We appreciate that some aspects of Science can be challenging but we continue to work hard to improve our skills and understanding.
Tolerance: We respect that other people might have different views to ourselves as we live in a diverse community.
Self-confidence: We are brave and take risks to explore and investigate the world around us.

In Science we are:

Healthy Pioneers: The great outdoors helps us to develop physically and mentally. Science helps us and teaches us about how the world works and the systems with in it.

World Citizens: Our children will develop an understanding about the world they live in. Through scientific investigations, they will understand their role in today and tomorrow's world by developing respect and tolerance towards scientific processes and how our world works.

Avid Adventurers: We are passionate that children are excited to learn about how things work in the world they live in. We believe that a curriculum rich in real life experiences develops confidence and resilience. We want them to know that Science exists outside school, their home and local community. There is a world waiting to be explored. We will allow them to manage risk-taking by having lots of fun and experiencing a little danger. These learning experiences will ignite the imagination and advance their knowledge and understanding, taking into account their diverse starting points and enrich their experiences of life.

Confident Communicators: In Science, children will be immersed in the vocabulary relevant to each topic. We will encourage the children to record, express and present findings and conclusions through lots of different ways and approaches.
Creative Minds: Individuality and self-expression is promoted through Science whilst developing resilience, resourcefulness and risk taking when faced with more challenging tasks. Creativity is encouraged in all areas especially when presenting and concluding findings from investigations and experiments.

How are British Values taught through Science?

British values, including those of mutual respect and tolerance of those with different faiths and beliefs are embedded in the Science curriculum. We promote tolerance through different people's ideas, creative responses and understanding of different cultures within Science. Pupils are encouraged to question and explore Scientific concepts and investigations. Science in Britain is studied through the curriculum. Pupils have the opportunity to work independently and as a team to build resilience and self-belief through tasks, sharing ideas and resources, peer assessment and supporting each other.

Science Intent, Implementation and Impact

Why has the specific content knowledge been selected? Why is it taught in the order that it is?
The National Curriculum gives a broad coverage for Science. This allows us to be selective as to when the units of work are taught. We have designed the Science curriculum to ensure it is well-sequenced, has a clear progression and end point. Reading and vocabulary is at the heart of the Science curriculum with a further focus on pupil lead investigations.

How are Science lessons taught at Gaskell Primary School? What is the impact?
After the implementation of this robust Science curriculum, children at Gaskell will be able to talk about Science and be able to competently plan and carry out investigations. Science is sequenced in a way that allows the children to build on their prior understanding and knowledge so they are able to confidently take charge and extend their own learning independently. This prepares and inspires our children to further explore a passion for science and the world around them.