



Branton Community Primary School and Breamish Valley Community Nursery

Science Policy

At Branton Community Primary School, it is our intent to offer a broad yet structured science curriculum throughout the school. In our science lessons we want to foster an enthusiastic attitude in our children whereby they want to explore and learn about the world around them. The curriculum plan ensures that children are taught key stage appropriate content and allow consolidation of previous learning before progressing to ensure sequential learning. Whenever possible concepts are taught in a manner whereby children gain first-hand experience; if this is not possible, research from reliable secondary sources such books, videos, and from the internet allow the children to report and apply skills such as reading, writing and data interpretation. We use our fantastic outdoor environment as a learning resource as often as possible in both discrete science lessons and when making cross curricular links in forest school.

Aims/ Intent

At Branton Community Primary School, we aim to ensure that we:

- Develop pupils' enjoyment and interest in science and an appreciation of its contribution to all aspects of everyday life
- Build on pupils' curiosity and sense of awe of the natural world
- Use practical activities to give pupils a greater understanding of the concepts and knowledge of science
- Provide a range of relevant experiences allowing pupils to acquire knowledge, skills and understanding in the key areas of: Scientific Enquiry, Life Processes and Living Things, Materials and their Properties, and Physical Processes through a variety of teaching and learning strategies;

- Introduce pupils to the language and vocabulary of science
- Develop pupils' basic practical skills and their ability to make accurate and appropriate measurements
- Promote children's ability to reason and make connection to real life situations and other curriculum areas through opportunities to apply their knowledge as well as discuss their thinking and understanding
- Extend the learning environment for our pupils via outdoor learning and the locality
- Promote a 'healthy lifestyle' in our pupils.

Planning/ Implementation

At Branton Community Primary School, long term planning is detailed within our curriculum maps. Science is taught in weekly discrete lessons as well as, when relevant, alongside other subjects such as in Forest School and PSHCE. Additionally, due to the mixed age range of each class and depending upon the needs of the children, it may be that specific 'Science Days' or 'Weeks' are planned to ensure that all areas are covered for all children.

Using the curriculum map to ensure coverage, teachers plan half termly objectives for each child. These objectives are then further developed into lesson plans, which may be supported by resources obtained from reputable sources such as Twinkl. Links with other curriculum areas are made when meaningfully appropriate.

Work undertaken within the Foundation Stage is guided by the requirements and recommendations set out in the EYFS Framework and staff follow the Development Matters statements to plan a progressive curriculum under the education programme: "Understanding the World". As we follow 'In The Moment Planning' we follow the children's interests to encourage development of observation skills, compare similarities and differences, using discussion and appropriate continuous provision or short adult-led tasks within the classroom to build on their knowledge.

Teaching and Learning

In the **Early Years**, we recognise that creativity plays a significant role in scientific thinking and understanding. Some scientific based activities are available for children to access independently in order to practise, develop and explore scientific skills, or through an adult led activity, in order for the children's understanding of the world around them to be extended, challenged or strengthened.

Learning in the Early Years is based on pupils' interests and current themes. As children progress, greater emphasis is then placed on representing their scientific knowledge through more formal experiences and they are encouraged to start recording their scientific thinking and knowledge.

As we progress into **key stage 1 and 2**, we use a variety of age appropriate teaching strategies to cater for the varied learning styles of our children. Although the science curriculum consists of blocks of knowledge the children must understand, these concepts should be taught and applied by 'working scientifically' on investigations. Whenever possible, we aspire to include aspects of investigative work.

The way we structure our science lessons varies depending upon the needs of the children. It may be through a series of weekly lessons or through a day of science activities. Staff aim to provide support to each individual child, whether it be to deepen their thinking and make connections to other concepts and curriculum areas or working with those children identified as having SEND and requiring additional guidance.

At Branton Community Primary School, we also believe that the use of the outdoor environment is important in supporting the teaching and learning of science. The world beyond the classroom is not only an essential part of our children's personal development, but it facilitates authentic, experiential learning where opportunities for deep, sustained learning can again be facilitated. Staff are encouraged to routinely plan for outdoor learning activities.

ICT is used in various ways to support the teaching and learning of science as well as to motivate children's learning. Each classroom has a PC connected to an interactive whiteboard and children are allocated a Chromebook on which they are able to access a variety of appropriate resources, including EducationCity, to consolidate and further their knowledge.

Assessment/ Impact

It is believed that formative and summative assessments are both important in fully understanding the depth of a child's scientific knowledge and understanding, and that a balance of both quantitative and qualitative sources should be used when making such judgements.

At Branton Community Primary School, the key sources of assessment in science are:

- Informal teacher notes which inform future planning
- Discussions with individual / groups of children
- Assessment for learning strategies: peer and self-assessments
- Verbal feedback or written marking in children's books where verbal feedback has not been given
- End of unit or term assessments obtained by EducationCity, Twinkl or Assertive mentoring

Resources

At Branton Community Primary School, teachers are expected to support the teaching and learning process by carefully selecting high quality, concrete and pictorial resources which best promote the learning of specific topics. Areas of need are monitored and equipment required can be requested via the Headteacher.

Continuous Professional Development

All staff are encouraged to develop, assess and improve their teaching of science. Where a member of staff feels a need for particular CPD, discussions should take place with their line manager as part of their Performance Management.

At Branton Community Primary School, we encourage staff to attend school based CPD as well as external training courses advertised via E-courier. We also

involve staff with policy and decision making as well as provide opportunities for in-school coaching where staff can both work with, and observe other colleagues.

Monitoring and Evaluation

It is the responsibility of the class teacher to:

- Review changes to the National Curriculum requirements and ensure on their implementation.
- Attend relevant CPD courses for Science as appropriate.
- Carry out monitoring of Science resources and request new resources as and when required.
- Endeavour to involve parents/ carers in their children's learning in and through science.

It is the responsibility of the headteacher to:

- Within the classroom, monitor the standards of children's science work. This could involve lesson observations, work scrutiny, learning walks, pupil interviews, data analysis and planning reviews.
- When appropriate, working with the science lead, arrange staff meetings to discuss the scientific aspects of the themes contained in the school's current scheme of work and how these might be presented in the classroom.

V Birdsall

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