**Cambois Primary School**

**Science Teaching and Learning Profi**

**Curriculum Intent**

Here at Cambois Primary School we believe Science provides the foundations for understanding the world around us. Science has changed our lives and is vital to the world’s future prosperity. We teach Science as part of STEM developments in school which allows us to support children in the world around them as well as preparing them for their next steps in the future, whether this being secondary school or future employment. All pupils will be taught the essential aspects of knowledge through concepts, methods, processes and the uses of Science, through dual objective planning and the use of a formative approach to assessment. In our school we teach Science through concepts and as a result we build up memorable knowledge and vocabulary, supporting children with both their learning and long-term recall. Through teaching this way, we are allowing our pupils to develop a sense of excitement and curiosity about natural phenomena and the world around them. They will be encouraged to understand how key knowledge and concepts can be used to explain what is occurring, predict how things will behave and analyse causes.

**Curriculum Implementation**

Science is taught at Cambois Primary School by:

At Cambois Primary School we teach Science twice a week from years 1-6. As a result of mixed year groups, teaching follows a programme of study for each class covering a 2-year cycle to ensure all topics in the National Curriculum are covered and accessible for all year groups. This is coherent with the rest of our school curriculum. Science is also taught as a discrete subject. As the reception class is part of the foundation stage, we relate the scientific aspect of the children’s work to the objectives set out in the Early Learning Goals included in ‘Knowledge and Understanding of the World’. This encourages children to explore, problem solve, observe, predict, think, make decisions and talk about the world around them.

In addition, teachers plan using dual objectives ensuring lessons have a clear and narrow focus as well as developing key scientific skills using the formative assessment board. Dual objective planning is widely recognised as an effective way to teach outstanding Science and works alongside the skills and criteria highlighted on the assessment board. Dual objective planning consists of a content objective (sets the context for learning and ensures the National Curriculum coverage) as well as a skill objective (sets the challenge for learning and reflects the skill focus of the lesson). Children develop scientific knowledge through conceptual understanding. The concepts taught through the topics of the curriculum are also known as ‘science models’, which weave their way throughout the entirety of the science curriculum. We provide children with the opportunity to develop an understanding of science through different types of scientific enquiries and working scientifically, helping them to make sense of the world around them through enquiry, investigation and experimentation. Vocabulary will also be developed alongside the teaching of science models. The use of science word walls in each classroom will highlight should use, must use and could use vocabulary which remain on show and become a key focal point of the classroom. Word walls are designed to be interactive and will therefore be frequently changed and referred to throughout the duration of each science lesson.

**Curriculum Impact**

All children at Cambois Primary School are provided with the opportunity to develop their understanding of science through high-quality science lessons. Science plays a key part of children’s lives within school and children are able to enjoy and progress. We aim to provide for all children so they achieve as highly as they can regardless of their year group or ability. Those pupils who are under-achieving are identified and steps are taken to improve their attainment, whilst those more able are also identified and challenges for their learning are provided. Activities take place both within and outside the classroom and it is ensured all children actively participate in these tasks which are matched to their previous knowledge, understanding and experiences. As a school we have adopted a formative approach to assessment in science which allows pupils to make mistakes, clarify their understanding and act on feedback to develop their skills and knowledge. Furthermore, a pupil’s ability to use ‘science models’ can be picked up through formative assessment and provides a means for measuring how understanding is developing not only within but also between explicit topics. The assessment boardused by teachers matches the National Curriculum for Science and follows a skills development approach and works in conjunction with a model-basedapproach to teaching. Class teachers take this into account to plan lessons with a clear focus so that skills are taught, knowledge is developed and progress can be clearly demonstrated. Science work can be evidenced through children’s individual workbooks and through the use of the online platform Seesaw. Additionally, the Early Years Foundation Stage records a lot of practical lessons on Tapestry. This allows the science lead and class teachers to monitor and evaluate the effectiveness of teaching and learning in science, to identify next steps and targets and provide children with the opportunity to share their views on science and discuss their work through pupil voice.