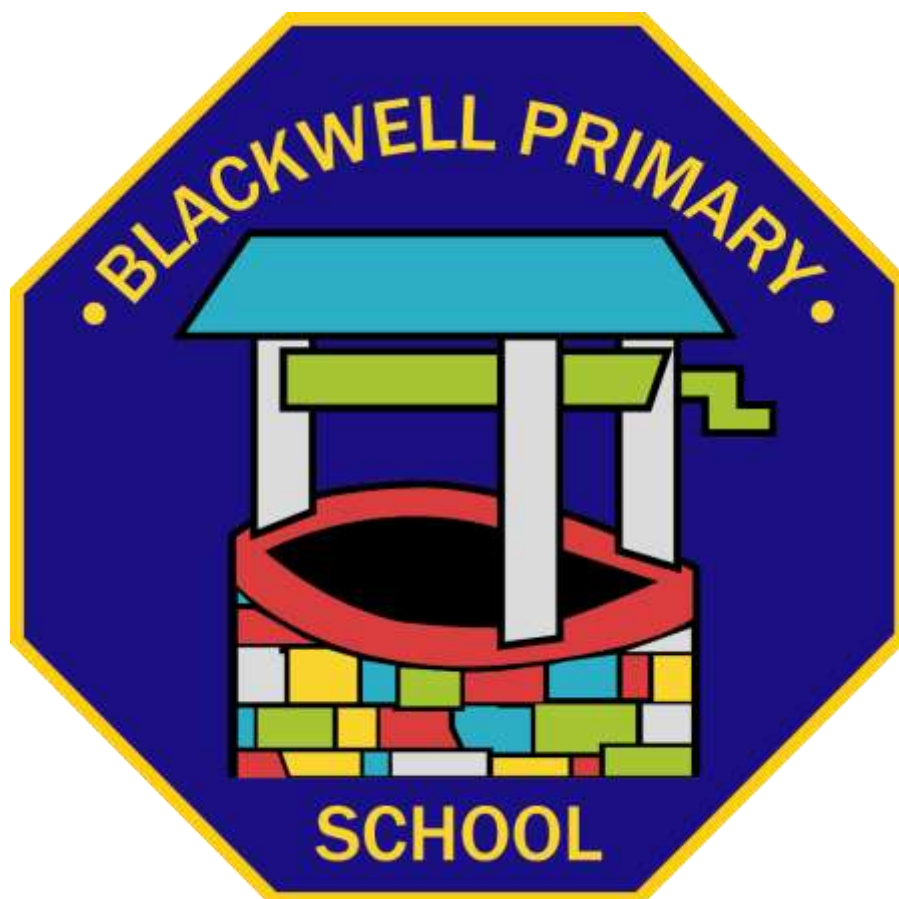




Blackwell Primary School
Science Policy
2025 – 2026



Intent

Through science lessons at Blackwell Primary School our intention is for all children to be **passionate, curious and inquisitive about the world around them**, and understand how the scientific community contributes to the past, present and future. They will be provided with **opportunities to learn, explore and adopt a broad range of skills in working scientifically** and analytically. Our aspirational curriculum aims for pupils to develop a foundation knowledge of **biology, chemistry and physics** in an inclusive and meaningful approach. At the core of our learning, we **encourage critical thinking** and empower pupils to question the world around them.

As a school, we have carefully selected the Kapow scheme that is fit for purpose for our pupils. The Kapow Science scheme of work is followed through EYFS and Key Stages 1 and 2. In EYFS the children learn to work scientifically through hands on experiences which encourage finding the answer to enquiries and learning about the world around them. The Kapow Science scheme of work fulfils the statutory requirements outlined by the National Curriculum for key stage 1 and 2 and ensures that children learn to work scientifically, gain scientific knowledge and understanding and understand science in action.

The scheme encourages:

- A strong focus on developing knowledge alongside scientific skills across biology, chemistry and physics.
- Curiosity and excitement about familiar and unknown observations.
- Challenging misconceptions and demystifying truths.
- Continuous progression by building on practical and investigative skills across all units.
- Critical thinking, with the ability to ask perceptive questions and explain and analyse evidence.
- Development of scientific literacy using wide-ranging, specialist vocabulary.

Implementation

The implementation of the curriculum relates to how the learning is going to be delivered across the school, taking the intent of the learning and translating it into a progressive and effective curriculum. When using a scheme, such as Kapow Primary, much of this aspect is taken care of. To meet the aims of the National curriculum for Science, Kapow has identified the following key strands:

- Scientific knowledge and understanding of:
 - biology: living organisms and vital processes
 - chemistry: matter and its properties
 - physics: how the world we live in 'works'.
- Working scientifically: processes and methods of science to answer questions about the world around us.
- Science in action: uses and implications of science in the past, present and for the future.

Kapow Primary's Science scheme is a **spiral curriculum, with essential knowledge and skills revisited with increasing complexity, allowing pupils to revise and build on their previous learning**. A range of engaging recall activities promotes **frequent pupil reflection on prior learning**, ensuring new learning is approached with confidence. The Science in action strand is interwoven throughout the scheme to make the concepts and skills relevant to pupils and inspiring for future application. Cross-curricular links are included throughout each unit, **allowing pupils to make connections and apply their science skills to other areas of learning**.

The National curriculum content has been grouped into six key areas of science to show progression throughout the school:

- Plants.
- Animals, including humans.
- Living things and habitats.
- Materials.
- Energy.
- Forces, Earth and space.

Pupils explore knowledge and conceptual understanding through engaging activities and an introduction to relevant, specialist vocabulary. The scheme utilises practical activities that aid in **the progression of individual skills and provide opportunities for full investigations**. In EYFS (Reception), **pupils build a solid foundation for science** before transitioning to Key stage 1. Through hands-on exploration and focused observations, lessons spark curiosity and foster an early appreciation for the natural environment, paving the way for more structured scientific learning in Key stage 1.

Each year group has an optional exploratory unit called 'making connections' that delves beyond the statutory curriculum. This unit **assimilates prior knowledge and skills** to evoke excitement and provide an additional method of assessing scientific attainment. Lessons incorporate **various teaching strategies**, from independent tasks to paired and group work, including practical, creative, computer-based and collaborative tasks. This variety means that lessons are engaging and appeal to those with different learning styles. Kapow's Progression of skills and knowledge shows the skills and key knowledge taught within each year group and how these skills develop year on year to ensure attainment targets are securely met by the end of the key stage.

Impact

The impact of Kapow Primary's Science scheme can be constantly monitored through both **formative and summative assessment opportunities**. Each lesson includes guidance to support teachers in assessing pupils against the learning objectives and any relevant scientific enquiry skills. Furthermore, each unit has a unit quiz and a knowledge and skills catcher, which can be used at the beginning or end of the unit to provide a summative assessment. Opportunities for pupils to communicate using scientific vocabulary will also form part of the assessment process in each unit. After implementing Kapow Primary Science, pupils should leave school equipped with the requisite skills and knowledge to succeed in science at Key stage 3. They will have the necessary tools to confidently and meaningfully question and explore

the world around them and pupils will understand the significance and impact of science on society.

The expected impact of following the Kapow Primary Science scheme of work is that pupils will:

- Develop early scientific thinking skills through hands-on exploration and sensory experiences in EYFS (Reception).
- Develop a body of foundational knowledge for the biology topics in the National curriculum: Plants; Animals, including humans; Living things and their habitats; and Evolution and inheritance.
- Develop a body of foundational knowledge for the chemistry topics in the National curriculum: Everyday materials; Uses of everyday materials; Properties and changes of materials; States of matter; and Rocks.
- Develop a body of foundational knowledge for the physics topics in the National curriculum: Seasonal changes; Forces and magnets; Sound; Light; Electricity; and Earth and space.
- Evaluate and identify the methods that 'real world' scientists use to develop and answer scientific questions.
- Identify and use equipment effectively to accurately gather, measure and record data.
- Be able to display and convey data in a variety of ways, including graphs.
- Analyse data to identify, classify, group and find patterns.
- Use evidence to formulate explanations and conclusions.
- Demonstrate scientific literacy through presenting concepts and communicating ideas using scientific vocabulary.
- Understand the importance of resilience and a growth mindset, particularly in reference to scientific enquiry.
- Meet the end of key stage expectations outlined in the National curriculum for science.

Planning

Each unit has an overview where weekly lessons can be found, as well as key vocabulary that is going to be taught within the unit. Teachers download the lesson plans and add any necessary adjustments in the space provided. This includes scaffolding activities that some children might need to support them further in the lesson. We aim to ensure that all children with SEND in science can access the learning being taught. Therefore, resources for these children will remain age appropriate, but will be adapted to their developmental stage of learning and personalised to meet their needs. Higher achieving children will be stretched and challenged through complex questioning and investigating.