

Science at Ashby Fields Primary School

At Ashby Fields Primary School, we aim to foster a lifelong love of science in our students, equipping them with critical thinking skills, a sense of curiosity, and a deep understanding of the world around them. We aim to inspire the next generation of scientists, innovators, and informed citizens through an engaging, hands-on, and inquiry-based science curriculum.

Curriculum Structure

1 Early Years Foundation Stage (EYFS)

- Focus on exploring the world around them, developing basic scientific vocabulary and concepts through play and exploration.

2 Key Stage 1 (Years 1-2)

- Introduction to basic scientific principles in biology, chemistry, and physics.
- Emphasis on observation, exploration, and simple experiments.

3 Key Stage 2 (Years 3-6)

- Further development of scientific knowledge and skills.
- More complex investigations, use of scientific equipment, and deeper conceptual understanding.

Intent

1. Engagement and Curiosity: To spark interest and curiosity in science through interactive and enjoyable learning experiences.

2. Knowledge and Understanding: To provide a solid foundation of scientific knowledge and understanding across biology, chemistry, physics, and earth sciences.

3. Skills Development: To develop scientific skills including observation, experimentation, data analysis, and critical thinking.

4. Real-World Application: To connect scientific concepts to real-world situations and global issues, fostering relevance and practical understanding.

5. Inclusive Learning Environment: To ensure all students, regardless of background or ability, have access to high-quality science education.

Implementation Strategy

1. Curriculum Design:

- The Kapow Science curriculum is designed to be progressive, building on prior knowledge and skills year on year.
- Lessons are structured around key scientific concepts and include clear learning objectives, engaging activities, and assessment opportunities.

2. Teaching and Learning:

- Lessons are delivered using a variety of teaching methods, including hands-on experiments, multimedia resources, group work, and outdoor learning.
- Emphasis is placed on inquiry-based learning, where students formulate questions, conduct experiments, and draw conclusions based on evidence.

3. Professional Development:

- Ongoing professional development is provided to teachers to ensure they are confident and skilled in delivering the Kapow Science curriculum.

- Training focuses on subject knowledge, pedagogical strategies, and the effective use of resources.

4. Resources and Equipment:

- Classrooms are equipped with the necessary scientific tools and materials to conduct experiments and investigations.
- Digital resources and online platforms are utilized to enhance learning and provide access to up-to-date scientific information.

5. Assessment and Evaluation:

- Use formative and summative assessments to monitor progress and inform teaching.
- Summative assessments are conducted at the end of units to evaluate overall understanding and mastery of scientific concepts.
- Student feedback and assessment data are used to continually improve the curriculum and instruction methods.

6. Adaptive Teaching

- We adapt teaching methods and resources to meet the diverse needs and abilities of all pupils.
- Provide additional support or challenge as necessary to ensure every pupil can achieve their potential.

7. Community and Parental Involvement:

- We actively involve parents and the wider community in the science learning process through workshops, science fairs, and community projects.
- Partnerships with local scientific organizations and businesses are fostered to provide real-world learning opportunities.

Impact

- The implementation of the Kapow Science curriculum is regularly monitored by the science coordinators.
- Feedback from teachers, pupil voice, and parents is collected to identify areas of success and areas for improvement.
- Annual reviews are conducted to ensure the curriculum remains current, effective, and aligned with educational standards and best practices.

By implementing the Kapow Science curriculum, we are committed to providing an outstanding science education that prepares our students for future academic and career success. Through engaging lessons, skilled teaching, and a supportive learning environment, we aim to nurture a generation of scientifically literate individuals who are equipped to tackle the challenges of the future.