Kingsway Primary School

Values-Based Education – Curriculum Statement for Science

At Kingsway Primary School, our science curriculum is designed to integrate a reading-inspired approach that aligns with our core values. By fostering a love for reading within the context of scientific exploration, we aim to create a rich, engaging, and inclusive educational experience. Our intent is to develop children's scientific understanding and skills while promoting togetherness, embracing diversity, fostering a passion for learning, and inspiring continuous growth.

Intent Overview

Our science curriculum aims to:

1. **Develop Collaborative Learners:**
    - Encourage group experiments and collaborative scientific investigations where students work together, share ideas, and learn from each other.
    - Implement reading circles focused on science-related books, where students discuss scientific concepts, share insights, and learn from each other's perspectives.
2. **Promote Inclusivity and Appreciation of Diversity:**
    - Use a variety of reading materials that reflect different cultures, backgrounds, and scientific contexts. This includes science storybooks, biographies of diverse scientists, and articles about global scientific contributions.
    - Provide various levels of reading materials and science challenges to meet the diverse needs of students. This ensures that every child can engage with the content at their level and pace, celebrating their unique strengths and perspectives.
3. **Nurture a Passion for Lifelong Learning:**
    - Blend literacy and science by incorporating reading assignments that involve scientific thinking, such as reading science-related stories, informational texts about scientific concepts, and biographies of scientists. This integration helps children see the relevance of science in everyday life and fosters a deeper understanding and appreciation for both subjects.
    - Use engaging reading materials that spark curiosity and excitement about science. Science-themed storybooks, articles about current scientific discoveries, and interactive science e-books can ignite a passion for learning and exploration.
4. **Support Holistic Growth and Personal Development:**
    - Promote a growth mind set by encouraging students to see challenges in science as opportunities for growth. Use reading materials that highlight stories of perseverance and success in science, showing students that effort and persistence lead to improvement and success.
    - Encourage children to reflect on their learning journey by keeping science journals where they write about their experiments, discoveries, challenges, and achievements. This reflective practice helps students become more self-aware and motivated to grow.

Implementation Strategies through our School Values

We Care about Togetherness	We Thrive on Difference
To promote togetherness through science, we encourage the following behaviours: • **Working Respectfully in Scientific Partnerships and Groups**	To promote thriving on difference through science, we encourage the following behaviours: • **Exploring Diverse Scientific Contributions from Around the World**

Pupils share resources, take turns, and listen to each other's ideas during group experiments and investigations.

- **Collaborating to Plan and Carry Out Enquiries**
  Children work together to predict, test, and evaluate, building shared understanding and supporting each other's thinking.
- **Helping Peers Understand Scientific Concepts**
  Pupils explain ideas clearly and kindly, helping classmates grasp new or challenging concepts during investigations or discussions.
- **Respecting Others' Contributions and Observations**
  Children value the input of all group members and include everyone in drawing conclusions and reflecting on results.
- **Celebrating Shared Successes in Science Projects**
  Pupils take pride in group efforts, recognising teamwork as key to scientific discovery and problem-solving.

Pupils learn about scientists from different backgrounds, cultures, and time periods, recognising the global nature of scientific progress.

- **Valuing a Range of Ideas and Hypotheses**
  Children are open to different predictions and approaches, understanding that diverse thinking strengthens scientific enquiry.
- **Respecting Different Perspectives During Scientific Discussions**
  Pupils listen carefully to others' interpretations of results or ideas and respond with kindness and curiosity.
- **Using Scientific Knowledge to Understand and Respect the Natural World**
  Children apply what they learn to appreciate the importance of biodiversity and sustainability in a variety of ecosystems.
- **Connecting Science to Everyday Lives Across Cultures**
  Pupils understand how scientific issues (like health, climate, and materials) impact people differently around the world.

We are Passionate about Learning

To promote being passionate about learning through science, we encourage the following behaviours:

- **Asking Inquisitive and Thoughtful Questions**
  Pupils show genuine curiosity about the natural world, eager to ask "why," "how," and "what if" questions to deepen their understanding.
- **Engaging Enthusiastically in Investigations**
  Children show excitement during practical experiments, actively participating and keen to observe, test, and explore scientific ideas.
- **Sharing Scientific Discoveries and Ideas**
  Pupils enjoy talking about what they've learned, confidently explaining findings and scientific facts to their peers.
- **Exploring Science Beyond the Classroom**
  Children link what they learn in lessons to the wider world, showing interest in science books, programmes, and real-life applications.

We are Inspired to Grow

To promote being inspired to grow through science, we encourage the following behaviours:

- **Reflecting on Scientific Learning and Progress**
  Pupils talk about how their understanding has developed and recognise areas they'd like to explore further.
- **Persevering When Experiments Don't Go to Plan**
  Children stay positive when investigations are challenging, showing resilience and learning from unexpected results.
- **Responding Positively to Feedback and Questions**
  Pupils use teacher and peer feedback to improve the way they record, explain, or investigate scientific ideas.
- **Challenging Themselves to Explore More Complex Scientific Ideas**
  Children take on advanced tasks or pursue scientific questions beyond the curriculum, showing ambition in their learning.
- **Applying Scientific Learning to Make a Difference**

• **Taking Pride in Scientific Work and Recording** Pupils carefully present their observations, results, and explanations, showing pride in the accuracy and presentation of their science work.	Pupils use their science knowledge to suggest ways to care for the planet, improve health, or solve real-world problems.

Impact

By the end of their primary education, children at Kingsway Primary School will:

1. **Exhibit Strong Scientific Skills:**
    - Understand how science can explain what is happening.
    - Predict how things will behave.
    - Analyse causes.
2. **Show Enthusiasm for Science:**
    - Choose to read about and research scientific ideas for pleasure and information.
    - Engage actively in discussions about books.
3. **Demonstrate Cultural Awareness and Empathy:**
    - Appreciate and respect diverse perspectives through science.
    - Connect science to their own lives and the lives of others.
4. **Reflect a Growth Mind-set:**
    - Embrace challenges in science and learn from mistakes.
    - Continuously seek to improve their scientific understanding.

Monitoring and Evaluation

- Regularly assess children's progress through formative and summative assessments.
- Gather feedback from children, parents, and teachers to inform curriculum adjustments.
- Monitor book usage and reading participation rates of scientific literature to ensure engagement and inclusivity.

By embedding these principles and practices into our science curriculum, we aim to nurture well-rounded individuals who are not only proficient scientists but also empathetic, thoughtful, and inspired to grow throughout their lives.