Science

Our TRUST Curriculum Principles

A Kaleidoscope Schools curriculum has been designed to enable children to develop wide knowledge/ skills and become well rounded and confident individuals who are curious and want to learn. Schools design and develop their own curriculums but encapsulate the following which are linked to the Kaleidoscope 5C's.

Intent

Our science curriculum is designed to ignite curiosity, foster critical thinking, and equip pupils with the knowledge and skills they need to understand and engage with the world around them. We believe that Science is not just a subject—it is a lens through which children can explore real-world phenomena, solve problems, and make informed decisions about their lives and the environment.

Implementation

Science is taught weekly across all year groups using a carefully sequenced curriculum that builds knowledge and skills over time. Lessons follow the National Curriculum and are designed to be engaging, practical, and inclusive.

We implement our science curriculum by:

- **Delivering lessons with clear learning objectives**, ensuring progression in scientific knowledge and enquiry skills.
- **Using practical investigations** to help children explore concepts and develop curiosity.
- **Embedding key vocabulary** to support scientific understanding and communication.
- **Making links across subjects**, especially with maths, English, and computing, to deepen learning.
- **Providing opportunities for outdoor learning**, real-life contexts, and visits to enrich science experiences.
- **Assessing learning regularly**, using questioning, observation, and simple tasks to check understanding and inform teaching.
- **Supporting all learners**, including those with SEND, through adapted resources and targeted support.

Teachers use high-quality resources and CPD to stay confident and up-to-date with science teaching. Our approach ensures that all pupils develop a strong foundation in science and are well-prepared for future learning.

Impact

Assessment Sheets

Science National Curriculum Milestones (Trust Milestones)

All pupils within the MAT will have an opportunity to research, create and exhibit at the annual Stem fair.

Key Theme	Reception	KS1 (Y1–Y2)	KS2 (Y3–Y4)	KS2 (Y5-Y6)
Plants	Children explore their immediate environment and learn about the natural world. Observing Plant Growth	Identifying and classifying plants Exploring what plants need to survive, such as water, food, and light.	Securing knowledge of plant parts and functions including pollination Exploring what plants need to survive, such as water, food, and light. Living things: Summer lane / local pond/ woods/ school habitats	Be able to reason choices for classification
Animals including humans	Looking at animal behaviours	Identifying and classifying plants Exploring what animals need to survive, such as water, food, and light.	Learning about different body systems, such as the digestive and respiratory systems. Explore and use classification keys We are Curious Trip?	Studying the heart, blood vessels, and the importance of a healthy lifestyle. Understanding Lifecycles of different animal classifications
Materials	Encouraging children to ask questions and make observations about their surroundings.	Investigating materials like wood, plastic, and metal, and understanding their uses and properties.	Studying different types of rocks and soils and learning about how fossils are formed. Understand and observe different states of matter.	Exploring how materials change state, such as melting, freezing, and dissolving.

Forces			Understanding how forces like push and pull work and exploring magnetic attraction and repulsion. Look in detail Clifton Suspension bridge	Understand the effects of gravity, air resistance and friction. Explore the effect of levers and pulleys on forces
Earth and Space				Learning about the solar system, the movement of planets, and the phases of the moon.
Light and Sound			Understand the need for light and the performance of shadows and patterns. Understand the dangers of the sun. Identify and find patterns in sounds including pitch and volume. Exploradome	Understand the movement of light
Electricity			Construct circuits and problem solve	Compare and reason the construction of circuits