

Subject: Science

Golden Concept: Science in our World

Purpose: At Maplefields Academy, efforts are made to make science relevant to students by incorporating real-world contexts, practical applications, and engaging learning experiences. The curriculum aims to foster students' curiosity and provide them with opportunities to see the relevance of science in their everyday lives. Here are some strategies used to make science relevant to students.

Assessment:

Teachers may observe students during class discussions, group activities, or practical exercises to assess their ability to ask questions, think critically, and solve problems. A student's participation in class discussions, asking relevant questions, and engaging in group activities can provide insights into students' inquiry and critical thinking skills.

Formal written exams often include questions that require critical thinking, problem-solving, and the application of knowledge. These questions may assess the ability to analyse information, draw conclusions, and solve problems.

In science subjects, practical assessments, including laboratory experiments, assess students' ability to ask scientific questions, design experiments, and analyse results.

Cross curricular: The opportunities for cross curricular learning are vast. The teacher will aim to make the knowledge relevant to the students experiences and aspirations.

- **Describing the weather in different parts of the world (humanities)**
- **Describing the properties of different materials and suggested the reasons for their uses (DT)**
- **Understanding the consequences of the growing population (human geography)**
- **Use of equations to describe the motion of cars accelerating (Maths)**
- **Describing the features of fast cars/ natural forms which allow them to be more aerodynamic (DT)**

Science in our world should be sophisticatedly integrated into all subjects and all lessons. Here are some example of how this could look at any key stage;

- **Relevance to Daily Activities:** Science lessons emphasize the connection between scientific principles and everyday activities. For example, studying nutrition in biology can be linked to making healthy food choices, or learning about forces in physics can be related to sports and motion.
- **Hands-On Investigations:** The curriculum promotes inquiry-based learning, encouraging students to engage in hands-on investigations and experiments. This approach allows students to explore scientific concepts directly, making the learning experience more tangible and relevant.
- **Problem-Based Learning:** Students are presented with contextual challenges or problems that require the application of scientific principles to find solutions. This approach demonstrates the relevance of science in addressing real-world issues.
- **Exploration of Contemporary Topics:** The curriculum may include the exploration of current and societal issues related to science, such as climate change, environmental sustainability, or public health. This allows students to connect scientific concepts to global challenges.
- **Real-World Experiences:** Field trips to science-related locations or guest speakers from scientific fields provide students with real-world experiences and insights. These experiences help bridge the gap between theoretical knowledge and practical applications.
- **Use of Technology:** Incorporating digital technologies and multimedia resources, such as videos, simulations, and interactive tools, enhances the learning experience. These resources make complex concepts more accessible and relatable to students.
- **Highlighting STEM Careers:** Introducing students to potential careers in science, technology, engineering, and mathematics (STEM) fields helps them see the practical applications and future opportunities associated with studying science.