



Science Curriculum Statements

Science statement - What Is Our Vision for Science?

At North Star 240 the science curriculum focuses a healthy curiosity in students about our human body, the environment and scientific enquiry. We aim to give our students a knowledge in science that will aid them in their future endeavours.

We intend for children to:

- Develop understanding of how science works through different types of science practical experiments.
- Students will be able to answer a range of different scientific questions.
- Students will be able to understand and apply scientific key words and terminology.
- Students will develop a scientific understanding so they can describe and explain the world around them.
- Students to acquire a range of knowledge and apply scientific skills across a board scientific curriculum.
- Students will have a curiosity in learning scientifically that will give some student the opportunity to undertake further studies at post 16.
- Students will be able to discuss, describe and explain how science impacts Social, Moral, Spiritual, Cultural aspects of life.

Implementation - How will we do this?

- A cycle of lessons for each unit, which carefully plans for progression and depth in which science teachers will ensure that they consistently raise's pupils' aspirations and promote pupil engagement.
- Through our planning, we involve problem solving opportunities that allow children to find out for themselves, carry out investigations, look at the evidence and come to a scientific conclusion.
- Working Scientifically skills are embedded into lessons to ensure these skills are being developed throughout the school and new vocabulary and challenging concepts are introduced.
- Tracking of progress through formal and summative assessment.
- A reflection on standards achieved against the planned outcomes (KPI's).
- For more able and gifted and talented students the option to an additional GCSE in Physics will be offered. The aim is that students to access a GCSE qualification in Science or a Functional Skill Qualification if they choose that option in year 10 as one of their option subjects.
- Lessons incorporate SMSC links to discuss, evaluate and learn about different topics that relate to science.
- Regular events such as Science Week, museum trips, and provide broader provision that allow for the acquisition and application of knowledge and skills.
- Science is implemented through a cross curricular approach-For example PE lessons links how the human body works in particular the skeleton, heart and circulation of the blood. Catering lessons link to diet, digestion and healthy food and lifestyle. Forrest school lessons- links to nature, care of the environment and ecosystems.

Curriculum

- **Key stage 3 year 7 and 8 Course Description:** Within Key Stage 3, year 7 and 8 students have 3 Science lessons per week. Years 7 and 8 follow closely the AQA entry level science single award course. Students work scientifically in both practical and theory lessons.
In Year 7 students cover the following units: Cells, particles and solutions, forces and frictions, environment and ecosystems, reproduction, speed and energy
In Year 8 students cover: diet, health, environmental chemistry, space and the body, reaction of acids.
- **Key stage 4 year 9, 10 and 11 Course Description:**
Less able Year 9 students will follow the Entry Level single award science route and if they choose it as one of their options into year 10 and 11.
 - More able Year 9 students will follow the GCSE Biology route into year 10 and 11.
 - Gifted and talented students will have the opportunity to do GCSE physics

Impact - planned potential positive impact on the pupils

Formative (test) and summative (teacher) assessment is used as the main tool for assessing the impact of Science at North Star 240 School as it allows for misconceptions and gaps to be addressed more immediately rather than building on insecure scientific foundations.

- Retain knowledge that relates to Science with a real life context and everyday applications.
- Achieve age related expectations in Science at the end of their cohort year
- Recall information from previous learning, question ideas and reflect that will reinforce learning.
- Articulate their understanding of scientific concepts and use scientific language in their everyday vocabulary.
- Have a knowledge of science or qualification in science take will aid them in their post 16 college courses.