

# Curriculum Intent, Implementation and Impact

Subject: Science KS3

Year group: 8

Periods per fortnight: 8

## **INTENT:**

**Vision: Engagement, Discovery and Success**

### **Mission Statement:**

In the Buckingham School Science Department, lessons are fun and **engaging**. Students are encouraged to develop the curiosity they need to **discover** new concepts for themselves. Lessons are planned with students' **engagement** in mind and, where possible, we will use practical activities. Questioning is encouraged, in particular 'why?' and 'how?'. Students' effort and hard work are rewarded. Students are aware of how their learning is progressing and are proud of their **success**. At the end of the course students are well prepared for a career in science should they wish, and are able to use the scientific skills they have acquired in whatever they choose to do in the future.

**In year 8**, students cover aspects of biology, chemistry and physics. The lessons are taught using a range of different techniques, including practical and written tasks.

**The school virtues** are encouraged throughout the teaching of the topics and embedded into schemes of learning.

**Ambition** – Science careers are discussed as part of the 'big-picture' section of our teaching. Students are taught how what they are doing applies to the outside world.

**Confidence** – Students develop the confidence to carry out practical tasks and written work. Success is rewarded within the department and students are encouraged to learn from their mistakes.

**Respect** – Students are taught to be respectful of each other and of their environment. Students' opinions are given equal weighting and students are given the chance to have their views heard.

**Empathy** – Within science empathy is a very important skill. It is important to be able to put yourself into someone else's shoes in order to see how a particular scientific advancement might affect them. We often refer to other people's beliefs and ethics within the curriculum.

**Resilience** – Resilience is very important within science. Students are encouraged to discover new ideas for themselves, make hypotheses and potentially make mistakes. Mistakes are as important in science as being correct. Students develop these skills by being encouraged to come up with their own ideas and then test them.

**Integrity** – Integrity in science is developed by encouraging key scientific principles of objectivity, clarity and reproducibility. Scientific studies must be carried out without bias and this is a key skill we address in our teaching of the practical aspect of the course.

**Curiosity** – We develop curiosity through the discovery aspect of the lessons. Students are encouraged as much as possible to discover new concepts for themselves through practical tasks. They should make their own conclusions about the world around them.

**We try to meet the need of all learners** within the department by setting our expectations as high as possible, challenging our students with questions and tasks that deepen their understanding of the world around them, at the same time as support is offered to students who need a different path to achieve their full potential.

## IMPLEMENTATION:

Term	Topics studied	Extended Learning opportunities	How parents could support students
Students are taught all topics on a rotation throughout the year	P3 – Energy C3 – Earth’s Structure B3 – Variation and Human Reproduction P4 – Heating and Cooling C4 – Reactions of Metals, Non-metals, Acids and Alkalis P5 – Waves B4 – Breathing and Digestion C5 – Climate and Earth Resources B5 – Respiration and Photosynthesis	Homework is given regularly with tasks posted on Google Classroom.  Homework tasks range from assignments, worksheets, web-based activities and revision tasks.  Assessments: <ul style="list-style-type: none"> <li>- End of unit tests completed at the end of each topic - teacher assessed and re-teach based on results.</li> <li>- Badger Task to be completed within each unit – teacher assessed and improved upon</li> </ul>	Check that students complete any homework set and meet deadlines  Support with learning key scientific vocabulary  Encourage students to revise for End of Unit Tests  Encourage students to explore learning platforms like BBC Bitesize and Seneca Learning

## IMPACT:

By the end of year 8 students will have a broad knowledge of scientific concepts and skills. This will be evident through their in-class assessments and their exercise books. Students will also be displaying the school virtues within their science lessons, as well as being **engaged**, developing a love for **discovery** and showing **success** in their curriculum.

The students will be assessed through a series of written assignments and will be graded according to the emerging, developing, securing and mastering criteria.