**Implementation**

We follow Science Bug (Active Learning – Pearson) to deliver weekly Science lessons. Each unit follows a 6-7 lesson sequence which builds on prior knowledge and deepens understanding across the unit. Our lesson structure is based on a 45- minute model which can be lengthened if enquiry demands this.

The lesson sequence incorporates the following overall structure

1. Introduction and knowledge capture.
2. Develop understanding.
3. Apply understanding.
4. Reflect and review.

Science lessons are as practical as possible.

Practical Science lessons follow the 5 Part Science lesson format:

* Engage – a “free-play” without fair-test boundaries
* Explore – a scientific video or concept that inspires a “Big Question" to be investigated hypothetically
* Explain – the children create a prediction and design an experiment to answer the “Big Question.” Variables, outcomes and fair testing is identified
* Elaborate – the children take part in the experiment, applying scientific knowledge and using appropriate terms and vocabulary
* Evaluate – Data is interpreted, and conclusions are encouraged to be drawn. The children analyse whether their prediction was correct

Experiments and investigations are written up with appropriate scientific vocabulary. Classrooms show the relevant scientific vocabulary needed for that unit.

We embed scientific vocabulary and processes in practical lessons and other scientific opportunities (museum trips, visitors, STEAM week). This is to focus on the consolidation of ideas and application of skills in a more project-based scenario.

**Science Curriculum**



**Intent**

At Sir Martin Frobisher Academy, our intention is for all children to develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.

They will develop an understanding of the nature, processes and methods of science through different types of scientific enquiries that help them to answer scientific questions about the world around them.

They will be equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.

**Impact**

Our Science curriculum is planned so that pupils achieve age related attainment at the end of each Key Stage.

Upon completion of each unit, children will complete a short quiz and produce a knowledge capture document.  Teachers will then use this to assess children against the progression of skills document.

Termly assessment will take place to track children’s progress against age related expectations for Science. Teachers will make a judgement using KPIs.

Once a term, teachers engage in a whole-school moderation process with exemplars.