



## Science

### 1) What is the intent?

In the Science curriculum: What is the intent behind the sequence of learning / curriculum?

(Guided by The National Curriculum)

- To deliver **engaging sequences of lessons** which follow the National Curriculum and ensure all Learning Objectives are covered by the end of each Key Stage.
- Children will be taught key **knowledge** through sequences of coherent and connected lessons. Where possible themes of learning will cross curricular.
- To provide children with engaging opportunities to be '**Scientists**' and foster and develop a love of the subject.
- The curriculum in **Key Stage 1 sets the foundations** on key scientific areas of learning. Opportunities to **revisit** and **deepen** understanding of these concepts are then in place throughout the **Key Stage 2** curriculum. For example, Y1- name the basic parts of the human body. Y3- identify the function of the skeleton and muscles. Y6- identify and describe the main parts of the circulatory system.
- Clear progression can be seen across the science curriculum including revisiting and deepening knowledge of prior concepts. Concepts taught in upper Key Stage 2 reflect children's maturity.
- Alongside knowledge, children will be taught **explicit scientific skills** that are transferable across subjects.
- There will be a strong emphasis on the teaching of **Scientific Enquiry**. All children will have opportunities to carry out scientific investigations. This will deepen across Key Stage 2 as children will plan and pursue their own **line of enquiry**.
- Children will be provided with opportunities to explore new concepts using a **child centred, practical approach**. This will enable them to ask **questions** and develop their **curiosity**.
- Children will be **aspirational** and **aim high**.
- Children will use a variety of resources to enhance and embed their learning.

- Children's language will be developed through explicit teaching of **scientific vocabulary** (tier 3 words as highlighted on the school curriculum overview) that links to the specific area of learning E.g. Light. This will support and enrich high quality talk.
- We will use our whole academy environment, as well as the wider environment through trips and visits, to **enrich and enhance** our science curriculum. Links are established and used with PLT particularly for upper Key Stage 2 to aid transition.
- Children are provided with engaging opportunities to practise and show their knowledge and skills presenting their learning in a variety of ways.
- Children will develop their critical thinking as they reflect on and evaluate their own and others learning. They will show **confidence to take risks** and develop **resilience**.
- **British values** will be embedded in the Science curriculum. Children will understand how science has shaped our history and how it will continue to do so in the future.

## 2) Implementation – Science Leaders will use:

- Lesson observations and check in's by Science lead and STEM team.
- Long term and medium term planning- Does it show sequences of engaging lessons, are there opportunities to develop knowledge and skills, is scientific enquiry planned for?
- Class displays- do they show the learning journey?
- Pupil conferencing ~ talking to the children and listening to them about their learning and understanding of science
- Children's book will show what has been taught.
- Talk to teachers and support staff – are they teaching the intended curriculum?
- Teachers will plan using the Curriculum Overviews as a scaffold to ensure the progression of skills is followed. Teachers will assess children's learning using the CBPSA Computing assessment grids to ensure there are excellent outcomes and so that our previously higher or lower attaining pupils are supported and challenged.

## 3) What is the impact?

- Assessment grids should show the majority of the pupils reaching a secure level of **knowledge** and **skills**.
- Book Looks will show topics covered in a variety of ways, vocabulary used correctly and clear knowledge of the subject.
- Pupil conferencing- Can they discuss topics taught knowledgably? Do they use subject specific vocabulary correctly? Can they talk about a line of

enquiry they have explored? Can they describe specific scientific skills?  
All this will be at an age related expectation.

- Displays and photo evidence.

#### **4) What will excellence look like in Science?**

- Teachers know the intent of Science – why we are teaching and what we are teaching.
- Topic planning will show progression of knowledge and skills being taught.
- Children enjoying science lessons and embracing their curiosity.
- Children will speak confidently and enthusiastically about the subject
- Children and adults will have an enthusiasm for the subject and look for cross curricular opportunities to use the skills learnt.
- CBPSA assessment grids being used by teachers to support and challenge previously higher and lower attaining children.