

# Wenlock CE Academy

## Science Curriculum Intent, Implementation and Impact

### INTENT

- Science teaching at Wenlock aims to give all children a strong understanding of the world around them whilst acquiring specific skills and knowledge to help them to think scientifically, alongside gaining an understanding of scientific processes and the uses and implications of Science, today and for the future, all while developing the love for science. This development and exposure of real life skills gives children the opportunity of becoming a well-rounded, flourishing individual, preparing them for further education and beyond.
- Scientific enquiry skills are embedded in each topic the children study and these topics are revisited and developed throughout their time at Wenlock, whilst ensuring continual progression, which allows children to build upon their prior knowledge and increases their enthusiasm for the topics.
- All children are encouraged to develop and use a range of skills including observations, planning and investigations, as well as being motivated to be scientifically curious by questioning the world around them and become independent learners in exploring possible answers for their scientific based questions.

### IMPLEMENTATION

- At Wenlock children will be accessing a bespoke curriculum that has been tailored and refined to meet the needs of the children currently attending the school.
- Teachers will teach the topics which are designed for their year group, ensuring unit knowledge, outlined within the National Curriculum, is catered to their cohort's needs by adapting the curriculum and adding to it where necessary.
- All topics must be taught before the end of the year, to ensure the progression of skills and Knowledge Organisers will be utilised for each unit to ensure this progression is followed.
- Our topics are taught individually as a specific Science unit or embedded within the driving project for that particular half term if the skills and knowledge fit the unit.

- Following National Curriculum guidance, some of these topics are built upon throughout numerous year groups, for example Electricity is introduced in Year 4 and revisited in more detail in Year 6 to allow for deeper understanding and development of specific knowledge.
- Scientific enquiry types will be explored in every lesson to expose children to a variety of scientific skills and questions. The cyclical progression of science investigation skills begins in year 3 and 4 where these skills are introduced and developed, the skills will then alter within year 5 and 6 allowing children to develop their own enquiry based expertise and deepen their knowledge.

### IMPACT

- The successful approach to the teaching of science at Wenlock will result in a fun, engaging, high quality science education that provides children with the foundations for understanding the world that they can take with them once they complete their primary education
- Assessment at Wenlock is teacher based and formed using formal strategies (e.g. periodic year group assessment tasks, quizzes) and informal strategies (Use of concept maps, verbal/written outcomes, reflection tasks/presentations).
- Formative assessment is used as the main tool for assessing the impact of Science at Wenlock as it allows for misconceptions and gaps to be addressed more immediately rather than building on insecure scientific foundations.
- Children at Wenlock will:
  - demonstrate a love of science work and an interest in further study and work in this field.
  - retain knowledge that is pertinent to Science with a real life context.
  - be able to question ideas and reflect on knowledge.
  - be able to articulate their understanding of scientific concepts and be able to reason scientifically using rich language linked to science.
  - demonstrate a high love of mathematical skills through their work, organising, recording and interpreting results. work collaboratively and practically to investigate and experiment.
- Impact of learning will be assessed through: pupil voice interviews, deep dives, assessing whether or not children can answer their own Scientific based questions and make links to prior learning.