



In ensuring high standards of teaching and learning in science, we implement a curriculum that is progressive throughout the whole school, from Reception through to Year 6. Planning for science is a process which is carefully mapped out in our long-term plan to ensure that the school gives full coverage of 'The National Curriculum programmes of study for Science 2014' and 'Understanding of the World' in the Early Years Foundation Stage. Science teaching at the Emmaus Federation means adapting and extending the curriculum to match the needs of all pupils. Where possible, Science is linked to class topics. Where needed, discrete Science units and lessons are taught to ensure the children are getting the coverage of the curriculum they need. For example; in Year B Year 6 participate in a themed day on Evolution and Inheritance. Due to having mixed aged classes, our Curriculum is on a 2-year rolling programme. This enables Emmaus Federation to guarantee all Science topics are covered for all children. Teachers plan Science to suit their children's interests, their own teaching style, the use of any support staff and the resources available.

At the Emmaus Federation we ensure that all children are provided with rich learning experiences that aim to:

- Develop lively, enquiring minds and the ability to question.
- Learn scientific skills and knowledge to support and develop their understanding of the ever-changing world.
- Build on their natural curiosity to enable them to understand and care for the world in which they live.
- Encourage open-mindedness, self-assessment and perseverance.
- Develop the skills of investigation – including observing, measuring, predicting, hypothesising, experimenting, communicating, interpreting, explaining and evaluating.
- Develop potential scientific skills to make links with other areas of the curriculum.

Science is taught consistently, once a week for up to two hours in all classes across Emmaus Federation. Science is also discretely taught in many different contexts throughout all areas of the curriculum. For example, through English, i.e. writing a biography of a famous scientist's life, writing an information text on the life cycle of a butterfly.

At Emmaus Federation we aspire to promote children's independence and for all children to take responsibility in their own learning. Therefore, we have implemented self/peer/teacher assessments to coincide with the lesson's success criteria. Children use these at the end of a session to evaluate their own learning in the lesson. We have also developed Scientific Knowledge Organisers which the children are introduced to at the beginning of each topic. These can be found in the children's books. We use these to assess children's knowledge at the end of a topic in a range of ways suitable to the age and stage of the child. For example, end of topic quiz, concept cartoons and matching vocabulary and explanation activities. These knowledge organisers, along with the end of unit tasks enable and support the children to articulate scientific concepts clearly and precisely, assisting them in making their thinking clear, both to themselves and others.

### Impact

The impact and measure of this is to ensure children not only acquire the appropriate age-related knowledge linked to the science curriculum, but also skills which equip them to progress from their starting points, and within their everyday lives.

All children will have:

- A wider variety of skills linked to both scientific knowledge and understanding, and scientific enquiry/investigative skills.
- A richer vocabulary which will enable to articulate their understanding of taught concepts.
- High aspirations, which will see them through to further study, work and a successful adult life.