

# **Dawley C of E Primary Academy**



*Enriching Learning, Enriching Life'*

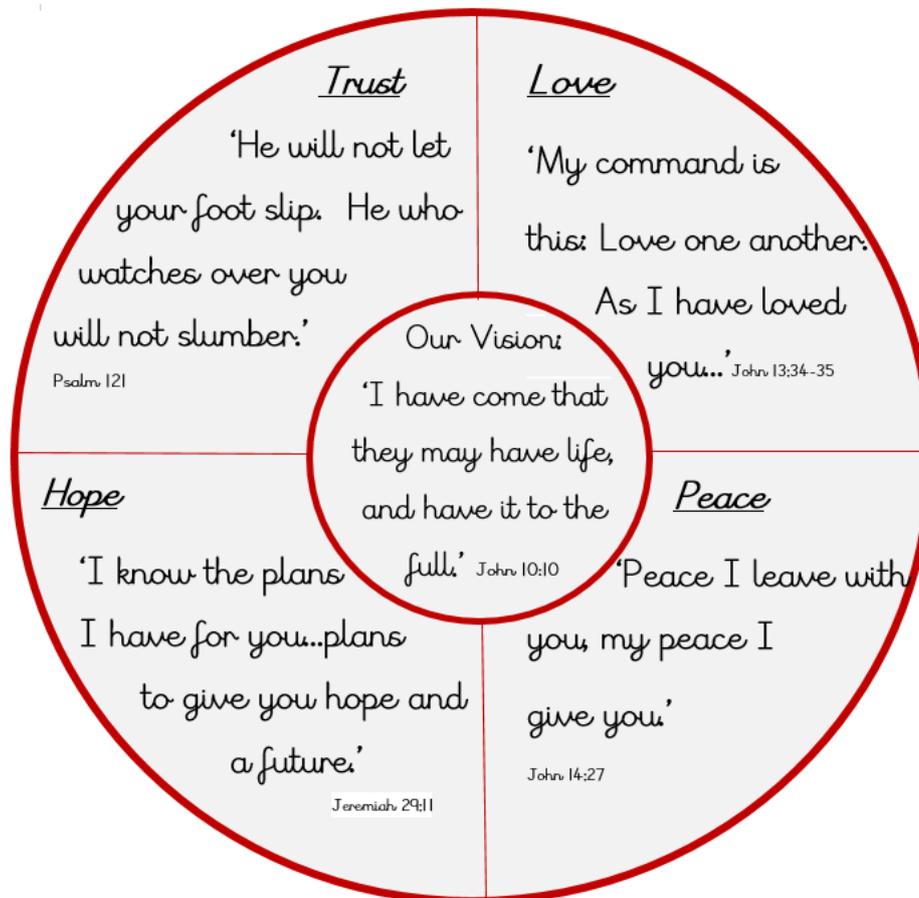
John 10:10 '...I have come that they may have life, and have it to the full.'

## **Science Policy (2021-2022)**

## Vision

*'I have come that they may have life, and have it to the full. John 10:10*

Our vision is to develop flourishing, caring children, equipping them with the skills to reach their potential. We believe in a curriculum that enriches lives, ignites interests, and engages children in real-life experience, as global citizens with an inclusive respect for others, readying them for their future, to live life to the full.



## **DEFINITION**

Science is a way of working that allows children, through practical first hand experiences and secondary sources, to develop their knowledge and understanding of the world in which they live. These experiences should enable children to observe, question, investigate, make sense of and communicate and evaluate their findings.

## **AIMS**

To encourage children to:

- Develop an inquisitive and questioning mind by providing children with the opportunities of an exciting and enjoyable curriculum.
- Provide children with opportunities to ask questions and reflect on the world around them.
- Apply their skills and knowledge to investigative work and to reflect on these experiences.
- Develop a deepening understanding of scientific concepts and explore these with peers.
- Work safely and carefully.

## **INTENT**

Science at Dawley C of E Primary Academy encourages children to develop a questioning and inquisitive mind. They develop deep understanding of the world around them, the impact they have on the environment and the importance of influences on our own personal lives. Our children are encouraged to be inquisitive, ask questions and use a range of resources to research, investigate and explore the potential answers. Children will gain a life-long interest in Science.

Children are encouraged to become independent and responsible learners, developing their investigative skills through practical enquires in a safe environment. A key focus of our curriculum offer is to encourage children to explore their own ideas within each curriculum area and within Science to investigate and evaluate their own questions. We believe that this provides children with a deeper understanding of the key concepts and allows opportunities correct misconceptions.

## **TEACHING AND LEARNING**

At Dawley C of E Primary Academy all children have access to the Early Years Foundation Stage Curriculum and Science National Curriculum. Our plans detail how children's knowledge develops and is built-upon through-out their time at Dawley C of E Primary Academy. The long-term Science curriculum plan also documents how 'Working Scientifically' is embedded within each unit. Teachers are supported with unit-specific scientific vocabulary which is taught through-out the unit to encourage children to be able to articulate their knowledge and understanding effectively. Children in the EYFS will be accessing learning opportunities through experience and investigative activities, this will be supported by their topics linked to their EYFS statements.

## **CURRICULUM ENRICHMENT**

Engagement and passion are the values that underpin our science curriculum at Dawley C of E Primary Academy. We support children's learning of the science curriculum with access to a wide range of educational experiences both in and outside of the school. Children spend time at local outreach and education centres which support embedding children's knowledge and skills and gives opportunities for application. We celebrate National Science Week in March and take part in whole-school learning journeys and present our scientific creations and explorations.

## **WORKING SCIENTIFICALLY**

Working scientifically is embedded through-out our Science curriculum.

Pupils at Dawley C of E Primary Academy learn to use a variety of approaches to answer relevant scientific questions by collecting, analysing and presenting their findings. These link closely to the unit of work that the children are focusing on and support the use and application of their knowledge and skills

Children will use different types of enquiry throughout each year:

- Observe over time
- Classifying and grouping
- Pattern seeking
- Comparative and fair test
- Research and secondary sources

Through this approach we aim to develop the following skills:

observing, raising questions, predicting, hypothesising, planning, controlling factors (fair testing), measuring, collecting and interpreting data, constructing tables and graphs, explaining, communicating and evaluating findings, researching information.

## **PROGRESSION**

It is of vital importance at Dawley C of E Primary Academy that our planning of the curriculum allows children to build-upon their knowledge, understanding and skills as they progress through the school. Our Science plans support this progressive approach and provides opportunities for adjustments to support the needs of individuals, groups or classes. As children revisit certain topics, they will be recapping their prior knowledge to embed previous learning and provide opportunities for new subject knowledge and skills. Teachers use the 'Science Progression Grid' to identify next steps and key concepts to teach through-out each year group.

## **INFORMATION COMMUNICATION TECHNOLOGY**

We see ICT as an important tool in Science. Children research, communicate, collect and interrogate data in a variety of ways. This is detailed in teachers' medium term planning. We feel that the use of ICT supports learners to present their findings in a different way, which may eliminate and reduce certain barriers to learning.

## **RECORDS AND ASSESSMENT**

Assessment of children's development is made through a combination of end of unit assessments, ongoing teacher assessment and formal tasks. From Year 1 to Year 6, children have individual tracking sheets to monitor their progress of 'Working Scientifically'. These are updated regularly and support teacher assessment.

## **SAFETY**

It is important that children are taught the rules of safety when undertaking experiments and investigations. Materials and equipment need to be handled sensibly and we try to ensure that children do this. It is the teacher's responsibility to make sure that all helpers (TAs, parents etc.) are aware of safety implications connected with any Science activity they are undertaking.

Following the recent outbreak of COVID-19, all staff have been provided with how to carry out safe-handling of all equipment used during scientific experiments and enquiries. Staff are aware of the cleaning procedure that must be carried out on all equipment before and after use.

## **MONITORING**

The Science curriculum is monitored by the science co-ordinator through staff meetings, observation of teaching, monitoring of medium term plans, children's work and pupil voice.