



The intention, implementation and impact of Science at Alton Infant School.

Intent.

At Alton Infant School we believe Science is inclusive and fosters curiosity in our children. We strongly believe that children need to feel safe and valued at school. We want children to experience and observe natural phenomena as well as look more closely at the natural and humanly constructed world around them. We strive to enable children to build on their natural curiosity and to shape it into scientific enquiry. Science is a hands on subject where each lesson provides new avenues for children to explore as well as using some appropriate secondary sources such as books and videos. Through our Science topics our children observe and ask questions with intrigue and excitement. We encourage children to develop their understanding of the world around them with a critical eye, as well as building the confidence needed to carry out their own experiments. Science includes observing changes over a period of time, noticing patterns, making links as well as grouping and classifying things. Children explore, collect evidence and test their own hypotheses. Science is about asking good questions, suggesting possible explanations, and then testing them to see if they make sense, and there is no one more naturally equipped to do this than children. We believe our curriculum must be accessible to all and should ensure pupils at all levels are helped to achieve their next steps. We help to build happy scientists who leave our school ready to take on their next challenge in year 3.

Implementation.

At AIS the Science curriculum consists of teaching the scientific areas of learning from the National Curriculum. These are spread out over the two years of Key Stage 1. Our Science progression maps notes how learning is built upon from the previous year group, ensuring progression from Year R to Year 2.

Through our commitment to children's rights, we have developed a provision to meet the needs of all children whatever their age, gender, faith, ethnicity, sexual orientation or disability.

Most lessons have a practical, hands on element, providing the children with authentic experiences, context and relevance for their key ideas they have been learning. We also ensure the development of speech and language allowing children to embed scientific vocabulary within their lessons and daily observations.

For pupils to achieve the requirements in Science, teachers at our school will help, support and encourage them to;

- Acquire, develop and extend significant knowledge and understanding of scientific concepts.
- Prepare for life in an increasingly scientific and technological world.
- Ask and answer scientific questions about the world around them.
- Initiate investigations and develop scientific and investigative skills including observing, measuring, predicting, hypothesising, experimenting, communicating, interpreting, explaining and evaluating.
- Develop an inquiring mind using critical and creative thinking.
- Develop the use of scientific language, recording and techniques.
- Become effective communicators of scientific ideas, facts and data.
- Acquire first-hand experiences of scientific activities, both as an individual and as part of a group.
- Foster concern about and actively care for our environment.
- **Build on children's prior scientific knowledge and encourage** a deeper understanding.

The following rights are particularly fostered through our Science curriculum:

- *Article 12: Every child has the right to give their opinion and for adults to listen and take it seriously.*
- *Article 19: Every child has the right to be protected from being hurt and mistreated, in body or mind.*
- *Article 28: Every child has the right to a good quality education. They should be encouraged to go to school to the highest level they can.*
- *Article 29: Every child's education should help use and develop their talents and abilities. It should help them to live peacefully, protect the environment and respect other people.*

Impact.

The majority of our pupils in Early Years Foundation achieve expected level of scientific understanding which then lays a foundation of understanding for further scientific learning. The majority of Year two pupils achieve the expected standard in Science at the end of Key Stage One.

Pupils develop a secure understanding of each key block of scientific knowledge and concepts in order to progress to the next stage of their education. Evidence is collated through assessment checklist statements for each topic within Year 1 and 2, and through learning within topic books.

Pupil conferencing shows that children enjoy Science and are able to articulate what they have learnt.

Learning walks, books scrutiny and lesson observations show evidence of our intent in action.

Data shows that children at Alton Infant School perform better than National Average for meeting end of Key Stage 1 Science expectations.

2017/18

Key stage 1 science attainment by pupil group

Key stage 1 science attainment by pupil group			
Breakdown	Cohort	At least the expected standard in science	
		School %	National benchmark
All pupils	53	89	83

2018/19

Science attainment by pupil group

Key stage 1 science attainment by pupil group			
Breakdown	Cohort	At least expected standard in science	
		Sch %	Nat %
All pupils	60	83	82

Alton Infant School is a Silver Rights Respecting School and an Eco-School. Children are encouraged to reduce, reuse and recycle with all the compost made from our snack waste composted for our own allotments.