

## Science Policy 2020

### Our intent:

*The most important thing about Science is being curious*

*We observe, we question, we hypothesise and investigate*

*And we gain knowledge of the workings of the world around us*

*But the most important thing about Science is being curious*

We recognise that children have a natural curiosity for everything which happens in the world around them. We intend to nurture this curiosity and inspire a love for this area of learning in a purposeful, stimulating environment which promotes challenge, independence and high achievement. From very the start of their school journey we hope to build on and deepen all our children's scientific knowledge, skills and conceptual understanding so that they are prepared for the next stage in their school life.

### Our implementation:

Our school delivers the National Curriculum objectives through a balance of practical and theoretical lessons with 'working scientifically' at its core. We ensure curriculum coverage and progression by teaching the programmes of study as set out in the National Curriculum. More detail can be found in the knowledge and skills and progression maps located in the Science area of the Shine curriculum on our website <http://www.akps.org.uk/about/akps-shine-curriculum/>

Our **Early years pupils** begin to experience science by working towards the Early Learning Goal: The Natural World. Their journey towards achieving this is supported through playing and exploring, active learning, and creating and thinking critically.

In **KS2** a two year rolling programme is used. By the end of Year 4 all children will have been taught the required objectives for Yr 3 and 4 and likewise by the end of Year 6 all objectives for Years 5 and 6 will have been taught. We also aim to revisit and recap previous learning where appropriate.

To support the programmes of study we use practical 'real' resources and our immediate environment where possible. We also use an online resource: <https://www.tigtagworld.co.uk/> and <https://www.tigtagjunior.com> which enhances our experience by, for example, enabling us to see footage of things we cannot see in school. The appropriate use of other relevant ICT resources is promoted.

The use of the **AK star challenge** ensures tasks are completed which are appropriate to ability and prior learning but also ensure progression and encourage challenge.

The opportunity may arise to further develop scientific understanding and knowledge as a result of the content of books used in our Power of Reading resource. We also look to <https://www.stem.org.uk/teaching-science-through-stories> and <https://www.booksfortopics.com/science> for inspiration when looking to link literature with science.

*From September 2021* the children's interest and learning in each topic will get underway with the introduction of a knowledge mat containing key learning and vocabulary. This will be built upon in science lessons and reflected upon at the end of the topic.

**Resources** are purchased and deployed effectively to meet the requirements of the Foundation Stage Curriculum and National Curriculum. Resources are stored centrally and in classrooms. The subject leader is responsible for ordering resources. Responsibility for recognising resource needs lies with both the subject leader and teaching staff. We subscribe to the Learning Resources Hub to loan resources and books to ensure we have all that we need for our topics.

### **Our impact:**

We have a range of ways to find out what the children know. At the beginning of each topic taught, we use COLD tasks to identify and address any misconceptions. At the end of a topic we use HOT tasks to enable both the teacher and the child to see the progress made. We observe children during independent activities to see their understanding of what has been taught and ask questions to further deepen their understanding and thinking skills. Relevant, purposeful discussion and questioning as a whole class, or in groups or pairs, is wholeheartedly encouraged.

Teachers assess using the questions which link to the objectives taken directly from the National Curriculum Programme of Study.

Monitoring in science includes regular book looks, lesson observations and/or learning walks, providing opportunities for pupil voice and analysing data. We do this in order to ensure correct curriculum coverage, share good practise, encourage a high quality of teaching and learning as well as ascertaining children's attitudes to learning science. This information is then used to inform further curriculum developments and provision is adapted accordingly.

**This policy will be reviewed every two years by the Science subject leader and shared with all stakeholders.**

Date: February 2021

To be reviewed: February 2023