



Overview of the Science Curriculum:

Parkside Primary Academy's key learning priorities for every child are:

- High quality teaching and learning experiences which ensure all children are equipped with the qualities and skills to be successful learners
- Instilling values which allow children to be successful, both now and in adult life, so that they participate in making an effective contribute to their communities and society as a whole
- Building cultural capital in all children, regardless of their background, so that they have the knowledge and understanding needed to be successful in the modern society
- Engaging learners in an exciting, challenging and creative approach to learning
- Application of numeracy and literacy skills to continually raise standards
- Making links with the community around us through enterprise and collaborative learning events with parents and the wider community
- Learning from the world around us (using the school grounds and surrounding area as well as regular educational visits and visitors.)

At Parkside, our intention is that all children have the opportunity to gain the knowledge, skills and understanding they need to be successful learners, both during their time at Primary school and in later life. Parkside's curriculum is at the heart of all learning that takes place within our Academy, therefore we believe that it is vital for children to access an enriching, broad and balanced curriculum which links intrinsically to our core values of:

- Courage
- Aspirations
- Resilience
- Excellence

Our whole school curriculum has been developed to ensure that children learn about the world around them and establish life long skills to develop them into well-rounded citizens who are able to contribute to their community and society as a whole.

At Parkside Primary Academy our aim is for all children to explore and discover the world around them so that they have a deeper understanding of the world we live in. Pupils will be given opportunities, through Science, to have practical hands on experiences that encourage curiosity and questioning. These stimulating and challenging experiences help children secure and extend their scientific knowledge and vocabulary. The children are exposed to a wide variety of topics that support the children's curiosity for learning. Our curriculum aims to broaden the children's scientific view of the world around them, whilst promoting a love for enquiry and wanting to explore new things.

The aims of the science curriculum at Parkside Primary Academy are to ensure that all pupils:

- Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics



- Develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them
- Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.

In each Key Stage, children will be taught both knowledge and understanding of Science with a focus on developing their working scientifically skills. The curriculum is designed so that children build on previous skills and knowledge and will revisit topics in greater depth as they move through the school.

Science will be taught through an enquiry led learning curriculum comprised of Thematic topics each half term. At the end of Key Stage 2 our aim is:

- To increase the child's knowledge and understanding of the world.
- To provide children with scientific experiences to inspire and fascinate.
- To enable children to effectively communicate their scientific knowledge, understanding and skills through engaging, meaningful activities.
- To ensure children use appropriate scientific vocabulary.
- To develop children's understanding of the effects of their actions on the environment.

Curriculum Intention:

At Parkside Primary Academy, we recognise the importance of Science in every aspect of daily life. As one of the core subjects taught in Primary Schools, we give the teaching and learning of Science the prominence it requires.

The Scientific area of learning is concerned with increasing pupils' knowledge and understanding of our world, and with developing skills associated with Science as a process of enquiry. It will develop the natural curiosity of the child, encourage respect for living organisms and the physical environment and provide opportunities for critical evaluation of evidence.

Parkside Primary Academy's science teaching offers opportunities for children to:

- Develop scientific knowledge and conceptual understanding through the specific disciplines of Biology, Chemistry and Physics;
- Develop understanding of the nature, processes and methods of Science through different types of science enquiries that help them to answer scientific questions about the world around them;
- Be equipped with the scientific knowledge required to understand the uses and implications of Science, today and for the future.
- Use a range of methods to communicate their scientific information and present it in a systematic, scientific manner, including I.C.T., diagrams, graphs and charts.
- Develop a respect for the materials and equipment they handle with regard to their own, and other children's safety.
- Develop an enthusiasm and enjoyment of scientific learning and discovery.



We endeavour to ensure that the Science curriculum we provide will give children the confidence and motivation to continue to further develop their skills into the next stage of their education and life experiences.

Curriculum Implementation:

At Parkside Primary Academy, science is taught mainly, although not exclusively, through our Thematic curriculum during the whole school themes of **Growth, Exploration and Serious About Science**. Scientific investigations are incorporated into these units of work to actively engage children in their learning. The focused and progressive skills used to plan and teach science, ensure that children are accessing work at age related expectations, with regular opportunities to be stretched and further their knowledge, skills and understanding through the incorporation of ambitious and more challenging objectives.

In Early Years, science is incorporated into the Early Learning Goals that children work towards with a key focus in understanding the world around them. The knowledge, skills and understanding children gain in EYFS sets the foundations for them to become scientists as they progress through school. Children are given the opportunity to explore and make observations through play-based learning.

At Key Stage 1 in Years 1 and 2, the principal focus of science teaching is to experience and observe phenomena, looking more closely at the natural and humanly-constructed world around them. They are encouraged to be curious and ask questions about what they notice. They are helped to develop their understanding of scientific ideas by using different types of scientific enquiry to answer their own questions, including observing changes over a period of time, noticing patterns, grouping and classifying things, carrying out simple comparative tests, and finding things out using secondary sources of information. They are encouraged to use simple scientific language to talk about what they have found out and communicate their ideas to a range of audiences in a variety of ways.

At Lower Key Stage 2 in Years 3 and 4, the principal focus of science teaching is to enable our pupils to broaden their scientific view of the world around them. They do this by exploring, talking about, testing and developing ideas about everyday phenomena and the relationships between living things and familiar environments, and by beginning to develop their ideas about functions relationships and interactions. They will build on the scientific enquiry skills they have developed during Key Stage 1 such as carrying out simple comparative and fair tests. They will learn to draw simple conclusions and use some scientific language to talk about what they have found out.

At Upper Key Stage 2 in years 5 and 6, the principal focus of science teaching is to enable our pupils to develop a deeper understanding of a wide range of scientific ideas. They do this through exploring and talking about their ideas; asking their own questions about scientific phenomena; and analysing functions, relationships and interactions more systematically. They begin to recognise how ideas help them to understand and predict how



the world operates. They will draw conclusions based on their data and observations, using evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings.

As a whole school we are focused on further developing the oracy and literacy skills of all of our children, promoting use of the 'language of the expert'. Subject specific words are a planned focus in all Science topics and taught explicitly in each lesson.

Curriculum Impact:

At Parkside Primary Academy, children's learning and understanding is assessed according to age related expectations which directly link with the 2014 National Curriculum for Science statements. This assessment is both ongoing, to inform future planning, and summative to share with staff, leaders and parents. This ensures that pitch, pace and challenge in lessons is well matched to all children's needs. It also ensures that by the end of each Key Stage, our children are the world's '**Scientists of Tomorrow**' and are well prepared for the next phase of their education. Leaders conduct lesson drop ins, book reviews, Academy reviews, pupil voice surveys and interviews with the children to discuss their learning and establish impact. The results of this feed further improvements and adaptations to the curriculum in order to ensure that we are providing our children with a world class learning experience.

For further information please see our website or speak to any class teacher. Alternatively please make an appointment to discuss this with Ms Ward, the Headteacher.