Selattyn C.E. Primary School

Statement of Intent for Science

Our School Vision

As a loving community, our vision is to nurture each individual in our care, giving them the skills, resilience and hope to succeed and flourish, both academically and spiritually, in God's ever-changing world.

Intent

At Selattyn C.E. Primary School, we believe that science forms a vital part of every child's educational journey, and that scientific knowledge and understanding is an essential skill for life. Our intent is to inspire an enjoyment of science through provoking our pupils' curiosity and offering all children opportunities to develop their observational, questioning and reasoning skills, whilst at the same time developing their appreciation, knowledge and understanding of the world around them. We want our children to develop secure foundations in Biology, Chemistry and Physics, and to develop a broad range of skills that will enable them to work scientifically and make associations between their science learning and their lives outside the classroom. We aim to provide a Science Curriculum, which will enable each child, including those with special educational needs and or disabilities, to reach their full potential in their science learning. Our intention is to enable each child to value and to respect God's ever-changing world, and to build the foundations of knowledge and skills that may be fundamental to solving global challenges.

Implementation

At Selattyn C.E. Primary School, we use the Kapow Science Scheme as a basis for science teaching. The curriculum aims to encourage critical thinking and to empower pupils to question the hows and whys of the world around them. It is designed with core scientific knowledge identified and explained throughout.

Kapow's Primary Science Scheme is a spiral curriculum where revisits are planned for, knowledge is embedded over time, and children have opportunities to return to and deepen their understanding as they reflect and build on prior learning.

The scheme is organised into half-termly units, typically comprising of 6 lessons. Each unit is based upon one of the key science disciplines; Biology, Chemistry or Physics and cross curricular links are included, thus allowing pupils to make connections and apply their science skills to other areas of learning. National Curriculum content is grouped into six key areas of science:

Plants
Animals, including humans
Living things and their habitats
Materials
Energy
Forces, Earth and Space

Pupils explore knowledge and conceptual understanding through engaging activities and relevant specialist vocabulary. There are frequent opportunities for developing scientific enquiry skills and the 'working scientifically' skills are integrated with conceptual understanding rather than being taught discreetly. The scheme utilises practical activities that aid the progression of individual skills and it also provides opportunities for full investigations. Knowledge organisers are used to help identify prior and future curriculum links, make learning meaningful and reinforce key learning and technical vocabulary.

Impact

At Selattyn C.E. Primary School we measure the impact of our science curriculum in a variety of ways:

The impact of Kapow Primary's Science scheme is monitored through both formative and summative assessment opportunities. Each lesson includes guidance to support teachers in assessing pupils against the learning objectives and any relevant scientific enquiry skills. In addition, each unit has a unit quiz and a knowledge and skills catcher, which is delivered at the beginning and/or end of the unit to provide a summative assessment. Opportunities for children to communicate using scientific vocabulary will also form part of the assessment process in each unit.

The expected impact of following the Kapow Primary Science scheme is that children will progressively:

- Develop a body of foundational knowledge for the Biology, Chemistry and Physics topics in the National curriculum.
- Be able to evaluate and identify the methods that 'real world' scientists use to develop and answer scientific questions.
- Identify and use equipment effectively to accurately gather, measure and record data.
- Be able to display and convey data in a variety of ways, including graphs.
- Develop the ability to analyse data to identify, classify, group, and find patterns.
- Use evidence to formulate explanations and conclusions.
- Demonstrate scientific literacy through presenting concepts and communicating ideas using scientific vocabulary.
- Meet the end of key stage expectations outlined in the National Curriculum for Science.

At Selattyn C.E. School, time will be allocated for the subject lead to carry out lesson monitoring and learning walks and the subject lead will collaborate with the link governor to monitor science provision.

Book trawls help to inform all staff about progression and can provoke teacher discussions around good practice and improvement.

There is involvement with local schools to develop teaching and to take part in local curriculum initiatives, e.g. Science days.

Moderation – internal and moderation with cluster schools.

Teachers regularly report children's progress to parents through termly Parents' Evenings and a written report in the summer term.