



Science

OUR CORE AIM FOR SCIENCE

At Swiss Gardens our intent is to give every child a broad and balanced Science curriculum which enables them to confidently explore and discover what is around them. We aim for them to be excited, inquisitive and to learn from first-hand experience so that they have a deeper understanding of the world we live in.

What do Science lessons look like at Swiss Gardens Primary School?

Discreet science should be taught weekly, however, teachers may decide that lessons will be blocked according to the year groups topics and learning intentions. Decisions are made for the best impact for children's progress and attainment. Non-statutory topics are taught throughout our topic based learning throughout the year.

In Science lessons, we would expect any observers to see:

- Children seeing themselves as scientists.
- Engaging in discussions using real world examples.
- Excitement for learning
- Inquisitiveness and the desire to question
- Resilience
- Perseverance
- Alternative thinking
- Explicit exposure to new vocabulary
- Awe and wonder
- Independence to explore without adults leading
- Practical opportunities when applicable
- Varied ways to record and display learning.
- Objectives in line with the National Curriculum Science expectations.
- Progression built on previous learning.
- Scientific skills and practise.

What does the children's work look like in Science?

In KS1 and KS2 work is recorded in science books which are then passed up through the year groups. This is for children to show individual independence with the subject and as evidence of their growth of understanding. Sometimes, teachers will provide a written record of the learning that has taken place, in order for children to have information to refer back to in the future. Sometimes work is photographed and included in their topic books to show develop of skills. Pupils and staff can make observational comments about what they have seen or know about topics. Mind maps are used at the beginning, end and throughout topics to display new knowledge and understanding as it develops.

Misconceptions or inaccuracies to be addressed as they arise and are challenged with next steps. Collective verbal feedback is given, by modelling in the subsequent lessons. Therefore, the books will

not provide reams and reams of written feedback (marking) from the staff to the children, as most feedback is provided orally for immediate impact within lessons.

What does Science look like in the Early Years Foundation Stage?

Science in the Early Years Foundation Stage (EYFS) is taught through "Understanding the World," focusing on hands-on exploration, sensory experiences, and nurturing curiosity. It is not a separate subject but is integrated through playful inquiry, encouraging children to observe, ask "why" questions, and explore nature and materials indoors and out.

Key elements of science teaching in EYFS include:

- **Active Learning and Exploration:** Children use their senses to investigate materials, living things, and physical phenomena. They may explore magnets, plant seeds, or observe changes in materials (e.g., ice melting).
- **Themed Topics:** Learning often centres on topics like "All About Me," "Changing Seasons and Weather," "Insects, Caterpillar to Butterfly" .
- **Development of Inquiry Skills:** Activities are designed to encourage prediction, observation, decision-making, and critical thinking. Children learn to ask questions such as, "Why do you think the caterpillar got so fat?".
- **Indoor and Outdoor Environments:** Outdoor learning plays a huge role, allowing children to observe nature and changing seasons, while the classroom environment provides focused sensory and investigative play.
- **Vocabulary Development:** Children are supported to use scientific language to describe what they see, hear, and feel. Through these methods, children develop a foundation of scientific understanding and skills

How do the teachers plan for Science?

First and foremost, the teachers are always striving to deliver effective, progressive Science lessons and for children to achieve the age appropriate expectations, adhering to national curriculum requirements. It is vital that Science is planned as a progressive subject throughout the children's time at the school, building on and making links with previous learning. To ensure this, teachers use mind maps to understand previous knowledge and understanding, before developing new skills and understanding. This also allows teachers' to pick up on misconceptions early on in the topics.

Science is mostly planned discretely, where appropriate, or with links to other topics, where appropriate. Our topic approach ensures that where links can be made to other subjects they are.

Science is always planned in the best way to enable the best learning and these decisions are made by the year team teachers, under the guidance of the Science subject leaders, as necessary.

There is a long-term overview of planned units of learning for the year to ensure full coverage of the learning, with the year team agreeing which Science learning will be taught and when in the term.

Year groups are able to plan their learning using a variety of methods: short term, medium term, individual lesson plans.

How does the school know whether children are making good progress and attaining high standards in Science?

The Science subject leaders (supported by SLT as necessary) monitors provision, progression and attainment e.g. via planning check-ins, lesson check-ins (observations), book looks, pupil interviews. Teachers are responsible for individual children's learning and will use mind maps and discussions to inform future planning.

What happens if a child is finding Science difficult?

We use a “mastery” approach to Science, which means we are always striving for the vast majority of children to attain the same age-expected standards of learning at the same rate as each other. However, some children may find Science learning more challenging than others. For these children, the subject is made accessible in its very nature of varied teaching approaches, with plenty of discussion to which all children may contribute. Adult support and scaffolding is provided to ensure each child’s Science understanding is still effectively shared, in order for adults to properly know each child’s true ability in this subject. Some children follow personalised learning curriculums and the learning is tailored to them.

What happens if a child is achieving very high standards in Science?

Where children are attaining particularly highly in Science teachers extend their knowledge further through higher level questioning and/or task expectation. The teachers deepen these children’s knowledge so that their learning does not “stand still”. Children have extended opportunities to share their knowledge and understanding with their peers.

How do opportunities for Science extend beyond each year group’s lessons?

Trips are encouraged where appropriate – for example: the planetarium. Locality is important and a vital resource for our children and teachers. Developments are happening at regular points throughout the year to enable more Science curriculum areas to be taught in within the school grounds. Trips within Shoreham are encouraged.

Is there anything else parents can do to support the learning in Science?

Parents could discuss the real-world Science around them and develop an eager fascination about the world and how it works. Parents could discuss where science can lead to in the future. Visiting science museums and centres can ignite interest in science, our nearest one is in Herstmonceux East Sussex.

<https://www.sciencemuseum.org.uk/home>

Who to contact

If you have any questions you would like to ask about Science, please do not hesitate to contact your child’s class teacher or the curriculum lead Ms Sharp via the school office:

office@sgprimary.co.uk