

Fazakerley Primary School
Formosa Drive, Liverpool, L10
7LD



Science Policy

Subject Leader: Mrs T Theis



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Our School Mission Statement

In order to achieve success at Fazakerley Primary School, we believe that *everyone* in our community is of equal *worth* and should be given the opportunity to develop their full potential intellectually, emotionally, socially, physically and professionally. We promote in our whole school community, an understanding and respect for everyone's well-being and mental health, valuing and supporting each other as an integral part of our school life.

Rationale

All school policies form a corporate, public and accountable statement of intent. As a primary school it is very important to create an agreed whole school approach of which staff, children, parents, carers, governors and other agencies have a clear understanding. This policy is the formal statement of intent for Science. It reflects the essential part that Science plays in the education of our pupils. It is important that a positive attitude towards Science is encouraged amongst all our pupils in order to foster self-confidence and a sense of achievement. The policy also facilitates how we, as a school, meet the legal requirements of current National Curriculum requirements.

Introduction

At Fazakerley Primary School, working scientifically is at the core of our science lessons. We believe that providing a high-quality science education allows for the greater understanding of the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to our community, country and world's future prosperity, and all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science.

By continually questioning the experimental design, children are able to leave Fazakerley Primary with a high level of critical and evaluative thinking which can be transferred to all areas of the curriculum.

Children are naturally curious and passionate about learning. At Fazakerley Primary School, we provide a stimulating science curriculum that nurtures this curiosity and allows pupils to ask questions and develop the skills they need to answer those questions.

From a young age, children are encouraged to aim high in science and understand how it can be used to explain what is occurring, predict how things will behave, and analyse causes. In Fazakerley, the children are inspired to consider careers linked to STEM (science, technology, engineering & mathematics) so they can be involved in the world's future scientific and technological developments.

Aims:

- To develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.



- To 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.
- That all children are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.
- To provide a curriculum that suits the needs of all children.
- To challenge the ability of all of our children and encourage them to reach their fullest potential.

Subject Delivery

At Fazakerley Primary School, our pupils are provided with a variety of opportunities to develop and extend their Science skills in and across each phase of education. We use a variety of teaching and learning styles in our Science lessons in order to meet the individual needs of all our children. In all classes, pupils have a wide range of abilities and we seek to provide suitable learning opportunities for all pupils by matching the challenge of the task to the ability of the child. Through carefully considered lessons, children will be provided with relevant experiences in a variety of situations including practical, hands-on experiences. In doing so, we hope to increase children’s independence and develop their process skills, concepts and attitude towards learning. At Fazakerley Primary School, we take advantage of links to other schools, outside agencies, organisations and communities to enrich science teaching and learning. Teaching in all our classrooms provide opportunities for:

- Group work
- Guided work
- Paired work
- Whole class teaching
- Individual work

Time Allocation

Within EYFS Science knowledge and understanding is built alongside the developing interests of the children, as part of the understanding the world curriculum. Investigations are undertaken when relevant to the topic about which the children are learning.

EYFS	KS1	KS2
Nursery & Reception – Knowledge, understanding and investigations taught as part of individual topics.	Year 1 and Year 2 Have termly blocks of 8 hrs. 6hrs are given to specific unit with 2hrs of each block used for developing skills of making observations over time. KS1 cover 4 topics per year.	Years 3 -Half termly blocks of 6hrs, covering 5 topics throughout the year. Years 4- 6 – Half termly blocks of 6hrs, covering 6 topics throughout the year



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Children's Work

There are different places where pupils can record their work in Science Lessons:

- Science Book: pupils complete work in the following format. When developmentally able to, we encourage our pupils to use a ruler to underline the date and objective. Date written on the top line, objective written on the second line and a line drawn below. This presentation instils pride in our children's work and consistency in approach throughout our school.
- SEESAW App (Each child has a folder for Science work): pupils can complete work individually or within small group/whole class situations. Photographs/Videos of practical work/investigations are recorded here with the option to record the children's explanations and capture scientific knowledge.

Resources

It is the responsibility of the Science Subject Leader to purchase, store and maintain new Science resources. All staff members will be involved in identifying the needs for new resources and will inform the Science Subject Leader of any areas in which resources need to be improved. Equipment is boxed and labelled either as part of a topic or as general equipment. This is centrally stored along with support materials and readily accessible to staff members.

Environment – Displays, Working Walls and Help Desks

The learning environment is key to supporting our children's learning and a Science working wall is a key part of this. During the teaching of each topic, there is a Science Working Wall, which is a public display of the knowledge and working scientifically processes of the current topic. A plan of what should be included on all Science Working Walls is an appendix within the Classroom Display Policy. Teachers use this display to support their teaching inputs and pupils are encouraged to utilise this display in each lesson as a supportive resource in their work.

Science displays around communal areas of school will showcase both knowledge and working scientifically skills within science. They will demonstrate the processes of a science investigation including: making predictions, planning and carrying out investigations, recording data and drawing conclusions. (Please see Environment Policy for more details)

Planning

The Science subject leader has devised a Long Term Plan for Science from EYFS to Y6. Alongside our Curriculum Intent statement, this forms part of our intent for our curriculum. It is a carefully considered overview plan of the content that has been taken from the National Curriculum and placed strategically in a deliberate order to



allow for coherence, sequencing and progression so that our pupils know more and remember more over time. Included in the Science Long Term Plan is the Key Knowledge, Skills and Understanding that will be covered in each unit. The vocabulary that is intended to be taught in each unit is also identified here. The Science subject leader has also devised a Medium Term Plan for each unit identified on the Long Term Plan from Years 1 - 6. This is a one-page easy use document that explicitly outlines a series of lessons in a deliberate order. The focus is to develop both substantive and disciplinary knowledge. It is our shared understanding that development of knowledge will underpin each lesson and practical activities are carefully chosen to support this. It also ends with an end of unit assessment task lesson which is designed to allow the pupils to demonstrate and the teachers to establish, how secure the pupils are in the intended KSU as they reach the end of the unit. The Science subject lead has drawn upon the National Curriculum, The Primary Science Teaching Trust and The Association for Science Education as well as resources shared during networking events to support them in this process.

Equal Opportunities

- All pupils irrespective of gender, race, religion or disability, are entitled to a broad and balanced science curriculum. We have high expectations of all our pupils
- Attainment of boys and girls as well as the achievement of other groups (e.g. SEND, EAL, Pupil Premium) is carefully monitored.
- Teachers plan careful differentiation and provide resources that enable pupils to access their year group objectives at some level wherever possible.
- Suitable resources and learning environments will be made available to enable pupils to access the learning required.

Special Needs

We believe that quality first teaching is essential in identifying and catering for the specific needs of all of our children. Teachers differentiate their questioning and level of support provided in order to ensure that all needs are met. Teachers monitor the progress of our pupils very carefully and if it is deemed that a child is not making expected progress, then the teacher identifies this to the SENDCo as a 'teacher concern' and additional provision is then planned. The provision is then monitored using the 'assess, plan, do, review' cycle. If at this point, it is still deemed that the child is not making sufficient progress, then we would seek additional advice from external agencies. This is classed as 'SEN support' and pupils and parents are invited to contribute towards the child's one-page profile, which considers the views of the child, the school and the parents. This profile suggests recommended outcomes, which are reviewed termly. The child's input is integral to the



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success of this profile as it allows the child to freely express how they feel about their learning and how school can support them.

EAL

We are aware that pupils with English as an additional language may have specific challenges and may require tailored support in order to access the curriculum.

More Able Children

We ensure that our more able pupils are constantly challenged through differentiated tasks, more challenging success criteria as well as the requirement for our more able to constantly evidence the application of science knowledge and skills within a breath of activities and across the curriculum.

Monitoring

Monitoring is undertaken in various ways:

- Observing lessons – usually with a specific focus of interest □ Monitoring pupils' work in English books and on Seesaw app.
- Learning Walks – usually with a specific focus of interest. This includes evaluating the quality of the learning environment and use of working walls/help desks etc. □ Staff, parent/carer and pupil voice

Assessment

Please read our school's 'Assessment' and 'Marking and Feedback' policies, which this policy runs alongside. Assessment is regarded as an integral part of teaching and learning and is a continuous process. It is the responsibility of the class teacher to assess all pupils in their class. It is both formative and summative. In our school, we are continually assessing our pupils and recording their progress. We see assessment as an integral part of the teaching process and strive to make our assessment purposeful, allowing us to match the correct level of work to the needs of the pupils, thus benefiting the pupils and ensuring progress.

Information for assessment will be gathered in various ways: by talking to the children, observing their work, marking their work, etc. Teachers will use these assessments to plan further work and inform the design of future lessons.

See 'Assessment Policy' for our timetable of assessment throughout the year, which indicates that assessment records are updated bi-annually using a variety of methods.

Teachers take part in moderation sessions within school and attend LA Moderations with other schools. These moderation meetings enable teachers to moderate each other's judgements against agreed criteria to ensure parity.



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Role of Subject Leader

The Science Subject Leader is responsible for co-ordinating Science through the school. This includes:

- devising an Action Plan at the beginning of each academic year based on the needs of the pupils, staff and whole school. To action, monitor and evaluate the progress of this throughout the year including writing an impact report at the end of the academic year.
- Ensuring continuity and progression from year group to year group
- Providing all members of staff with guidelines and planning frameworks to show how aims are to be achieved and how the variety of all aspects of Science are to be taught
- Advising on in-service training to staff where appropriate. This will be in line with the needs identified in the Development Plan and within the confines of the school budget.
- To provide, where necessary, in-house training.
- Advising and supporting colleagues in the implementation and assessment of Science throughout the school
- Assisting with requisition and maintenance of resources required for the teaching of Science. Again this will be within the confines of the school budget
- Complete monitoring of children's books (termly). If it is deemed necessary – scrutiny of planning to answer questions raised in book monitoring.
- Carry out staff & pupil voice interviews.
- Classroom Observations and Learning Walks
- Attend Subject Leader Briefings led by the local authority.

Role of Class Teacher

- To ensure progression in the acquisition of Science skills in line with this policy, our school Science Vision and the National Curriculum for Science
- To develop and update skills, knowledge and understanding of Science
- To identify CPD needs in Science and take advantage of training opportunities, sharing these with the subject leader.
- To keep appropriate on-going records and assessments (in line with assessment policy)
- To plan effectively for Science (with year group partners), liaising with subject leader when necessary.
- To inform parents of pupils' progress, achievements and attainment



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Health and Safety

The schools has the most recent edition of 'Be Safe' published by the ASE. At all times teachers must be aware of any potential risks and take action to avoid them. Pupils must also develop an awareness of risks and a responsibility towards themselves and their classmates.

Website Information

It is the responsibility of the Science Subject Leader to keep up to date with the statutory requirements of Science and to ensure that all information is provided to the website manager for upload onto the school's website.

Parents

Parents are important influences on pupils' attitude and attainment. We actively encourage and involve them in school life through:

- Homework – Spelling practice
- Parent Workshop mornings
- Stay & Play sessions
- Information-giving sessions
- Newsletters
- Parents' Evenings
- Annual written reports

Signed: T Theis

