



SCIENCE POLICY

INTRODUCTION

This Science policy is for both Alexandra Infants' School and Alexandra Junior School.

The policy document is reviewed regularly by the Science Leader as well as members of the SLT with respect to inclusion, equality of opportunity, continuity, progression, differentiation and accessibility.

PURPOSE

The Policy is closely linked to the Action Plan. It will provide a framework for the teaching and monitoring of Science. The Policy aims to inform teaching and support staff.

DEFINITION

It is a legal requirement to teach Science. It is a National Curriculum Core Subject which enables and encourages children to develop **scientific knowledge and conceptual understanding** alongside a range of enquiry skills. It offers excellent cross-curricular links and opportunities for co-operative learning.

Staff at Alexandra Infants' School and Alexandra Junior School are fully committed to the belief that every child between the ages of 3 and 11 is entitled to the best education possible. They have met regularly and produced this document for parents, governors, the wider community, new teachers, and the Local Authority.

Through teaching and learning in science, children have the opportunity to learn about the world around them. We aim to help the children appreciate the valuable contribution science makes to society, introducing some of the moral and ethical issues, including the beneficial and harmful aspects of Science.

Alexandra Schools understand that every child has the right to an education (*as in accordance in with UNCRC article 28*). The teaching of science will fulfil the children's rights.

AIMS

At Alexandra Infants and Junior Schools, science teaching and learning aims to:

- stimulate and excite pupil's curiosity about phenomena and events in the world around them
- encourage children to ask their own questions, and also find ways to answer them
- link learning with practical experiences and real-life contexts

- develop scientific enquiry skills e.g. predicting, observing, recording/sharing findings and evaluating
- help children to develop an understand of key scientific vocabulary
- make pupils aware of how major scientists of range of diversities contributed to scientific ideas: medicine and improving the quality of life etc.
- teach essential aspects of the knowledge, methods and uses of science.
- encourage the power of rational explanation
- develop a sense of excitement and curiosity about natural phenomena.
- explain what is occurring and/or predict of how things will behave
- analyse specific applications in society and the economy.

NATIONAL CURRICULUM

Teaching is based on the National Curriculum for KS2, KS1 and Early Years Foundation Stage Curriculum. Science is about asking questions and seeking answers through appropriate enquiry methods i.e. testing, pattern seeking, observation, identifying/classifying or researching secondary sources of information. Therefore, the curriculum is mostly enquiry led, rather than focused solely on the delivery of subject/content knowledge.

ROLE OF THE SCIENCE LEADER

- Responsible for identifying priorities, action planning and driving standards forward.
- Responsible for monitoring Science (as below).
- To update the policy and schemes of work as appropriate.
- Responsible for maintaining and ordering relevant materials to deliver the subject effectively.
- Responsible for keeping well-informed of developments in effective pedagogy
- To update staff and offer CPD as available and/or requested.

MONITORING

The Science Leader, Head Teacher and Deputy Head Teacher will be responsible for the monitoring of Science. This will include observations of teaching and learning, planning scrutiny and moderation, talking to pupils and looking at samples of children's work.

INCLUSION

The starting points for educating all pupils are the same: an acceptance of diversity, pupils' rights, and the knowledge that all pupils can learn if they receive good teaching. All pupils have a right to effective teaching and full participation in the community of a school as set out in international agreements (the UN Convention on the Rights of the Child, 1989) and education law in England (the Equality Act, 2010 and the Children and Families Act, 2014).

At Alexandra Infants' and Junior School it is our belief that all children have an equal right to a broad and balanced curriculum, which enables them to meet their full potential. Through our teaching we provide learning opportunities that are ambitious for all and enable all pupils to make good progress.

Teachers set high expectations for all pupils in design and technology. They will use appropriate assessment to set ambitious targets and plan challenging work for all groups, including:

- More able pupils
- Pupils with low prior attainment
- Pupils from disadvantaged backgrounds
- Pupils with special educational needs (SEN)
- Pupils with English as an additional language (EAL)

(For further details, see separate policies)

Teachers will plan lessons so pupils with SEN and/or disabilities can study design and technology, and ensure that barriers to learning are reduced through adaptations as part of high-quality teaching. Teachers will also take account of the needs of pupils whose first language is not English. Lessons will be planned so that teaching opportunities help pupils to develop their English, and to support pupils to take part in design and technology.

Further information can be found in our statement of equality information and objectives, and in our SEN policy and information report.

As a school we strive to ensure that all children, staff and members of our school community are treated fairly and equally. All children have equal rights to access all areas of the curriculum, regardless of race, gender, religious beliefs, sexual orientation and disability. Within this subject area, the Senior Leadership Team (SLT) and all staff endeavor to provide the appropriate provision for this to occur. This policy follows the guidelines and practices that are stated and outlined in Alexandra Infants' and Junior Schools Equality Scheme. Please see this policy for further detail.'

PLANNING

See Science Curriculum and pedagogy document

ORGANISATION

The most effective way of teaching science is through child-led, first-hand experiences.

- Wherever possible children will be able to make predictions, investigate/experiment in a variety of ways, then observe, record their own findings and record their conclusions and review their findings.
- Children will work independently, in pairs, in groups, as a class and with adults as appropriate.
- Children will be encouraged to evaluate their own work and to communicate their findings and experiences to others.
- Children will record their work in a variety of ways through annotated photographs, drawings, diagrams, models, tables, charts, verbally and in writing where appropriate.
- Teachers should focus on ways of recording pupil-led, experiential learning rather than asking children to produce written work.
- Lessons will be clearly documented and assessed in a class floor book.

CROSS-CURRICULAR LINKS

Where possible, science will be taught in conjunction with other National Curriculum subjects making relevant links to provide a real-world context for learning.

INCLUSION

Inclusion statement for subject policies

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Teachers set high expectations for all pupils in science. They will use appropriate assessment to set ambitious targets and plan challenging work for all groups, including:

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- Pupils with special educational needs (SEN)
- Pupils with English as an additional language (EAL)

(For further details, see separate policies)

Teachers will plan lessons so pupils with SEN and/or disabilities can study science, and ensure that barriers to learning are reduced through adaptations as part of high-quality teaching. Teachers will also take account of the needs of pupils whose first language is not English. Lessons will be planned so that teaching opportunities help pupils to develop their English, and to support pupils to take part in science. Further information can be found in our statement of equality information and objectives, and in our SEN policy and information report.

As a school we strive to ensure that all children, staff and members of our school community are treated fairly and equally. All children have equal rights to access all areas of the curriculum, regardless of race, gender, religious beliefs, sexual orientation and disability. Within this subject area, the Senior Leadership Team (SLT) and all staff endeavour to provide the appropriate provision for this to occur. This policy follows the guidelines and practices that are stated and outlined in Alexandra Infants' and Junior Schools Equality Scheme. Please see this policy for further detail.

ASSESSMENT/RECORDING

The assessment of Science is in line with the school's agreed assessment procedures – see separate Assessment Policy. Assessment for learning is on-going and plays a significant role in measuring pupil progress whilst also identifying targets and next steps. Whilst learning is experiential, written work should not be relied upon as an assessment tool. Teachers should use questioning and observation in order to assess pupils' progress throughout a discussion/investigation.

- Pupils' comments, observations, questions and learning statements will be recorded in class floor books.

- Levels of attainment for enquiry will be recorded at the end of each term, data will be recorded on DCPRO. Each lesson will be assessed and inputted into the class floor books.
- Assessment records are kept of individual pupils who are working below or above ARE.
- In the floor books, staff note reasons for pupils that exceed or struggle to meet the required level of attainment.

RESOURCES

Resources are stored in the Science cupboard at Alexandra Infants and in the Activity Area storage boxes outside the Year 5 classrooms at Alexandra Juniors. These are regularly checked and organised by the science leader and deputy. Teachers, or responsible children, must return resources to the location they found them after use, and also inform the science leader or deputy when items need replacing.

HEALTH AND SAFETY

Pupils are encouraged to work **safely at all times** for the benefit of themselves and other pupils. Staff are aware of the necessary precautions to be taken in all experiments and investigations. They are also aware of teachers' duty of care/pupil health and safety. If in doubt teachers should refer to the CLEAPPS website, the ASE booklet 'Be Safe!' or talk to the science leader/deputy.

Updated April 2024 by Mrs J Ash and Mrs S Wyse; Science Leaders

This policy will be reviewed annually.
Next review due April 2025.

