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## Policy Connections

The policy should be read in conjunction with the Supplementary Guidance for the Curriculum Policies (covering Philosophy & Ethos; Audience; Monitoring & Evaluation of Curriculum Subjects; Assessment, Recording & Reporting and Supporting Learning Beyond the Classroom) and Schemes of Work for Science which set out in detail what pupils in different Key Stage ability ranges will be taught.

## Aims and Purpose of Study

Science at The Loyne Specialist School is a subject which supports a foundation for understanding the world around us, while developing a sense of excitement and curiosity, in accordance with the Science National Curriculum. The aims are to provide pupils with a range of experiences and activities, which will:

- Enable the pupils to develop an awareness of and interest in, themselves, their immediate environment, knowledge and understanding of the world.
- Encourage the pupils to join in practical activities that link to ideas.
- Foster curiosity and develop an enquiring and analytical mind.
- Widen experiences and develop all senses to explore and investigate.
- Develop an understanding of cause and effect.

These aims are consistent with our school philosophy and take account of LA curriculum policy and National Curriculum Statutory guidance.

Science comprises of different programmes of study for each Key Stage, outlined below. The statutory requirements for each Key Stage are included. The Curriculum Organisation Policy requires staff to modify the programmes of study to give all pupils relevant and appropriately challenging work at each Key Stage.

*‘Staff can modify the science programmes of study for pupils with learning difficulties by:*

- *Choosing material from earlier key stages*
- *Maintaining, reinforcing, considering and generalising previous learning, as well as introducing new knowledge, skills and understanding*
- *Using the programmes of study for science as a resource, or to provide a context, in planning learning appropriate to the age and needs of pupils*
- *Focusing on one aspect, or a limited number of aspects, in depth or in outline, of the age-related programme of study*
- *Including experiences which allow pupils at the early stages of learning to gain knowledge, skills and understanding in science as part of their study of other subjects, or which take place as part of everyday activities, for example, choosing materials, investigations involving food and cooking*
- *Enabling some pupils, at first, to access science by personal exploration using a sensory approach’ (‘Planning, teaching and assessing the curriculum for pupils with learning difficulties’ QCA)*

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### Key Stage 1

‘The principal focus of science teaching in key stage 1 is to enable pupils to experience and observe phenomena, looking more closely at the natural and humanly-constructed world around them.’ (The National Curriculum in England’ September 2013)

- Working Scientifically
- Plants
- Animals, including humans
- Everyday materials
- Seasonal Changes

(The National Curriculum in England’ September 2013 Year 1 Science)

### Key Stage 2

‘The principal focus of science teaching in key stage 2 is to enable pupils to broaden their scientific view of the world around them.’ (The National Curriculum in England’ September 2013, in relation to lower key stage 2)

- Working Scientifically
- Plants
- Living things and their habitats
- Animals, including humans
- Uses of everyday materials

(The National Curriculum in England’ September 2013 Year 2 Science)

### Key Stages 3 and 4

‘The principal focus of science teaching in key stage 3 is to enable pupils to develop a deeper understanding of a wide range of scientific ideas.’ (The National Curriculum in England’ September 2013, in relation to upper key stage 2)

- Working Scientifically
- Plants
- Animals, including humans
- Living Things in their Habitats
- Rocks
- States of Matter
- Properties and changes of Materials
- Light
- Sound
- Electricity
- Forces and Magnets
- Earth and Space
- Evolution and Inheritance

(The National Curriculum in England’ September 2013 Years 3-6 Science)

Each Programme of Study is differentiated to allow all our pupils to access the content in a meaningful and realistic way. Further details of this can be found in the Schemes of Work for each Key Stage. Where appropriate, elements of the science curriculum may be revisited throughout different key stages to contextualise and apply learning.

### **Health and safety**

Pupils should be taught to recognise that there are hazards and dangers in the world around them as well as in the investigations they will carry out. They will be helped to assess and take action to reduce risks to themselves and others. Staff need to be aware of the risks involved and ensure suitable precautions are taken. See scheme for more detail.

### **Method of delivery**

The curriculum organisation and structure is outlined in the policy document entitled "Curriculum and School Organisation." The procedures for planning, teaching and learning strategies, monitoring and evaluation are outlined therein.

### **Early Years Foundation Stage (EYFS)**

Science is planned and delivered as practical and appropriate elements within the EYFS strand 'Understanding the world' and the wider context of the EYFS curriculum. Teachers plan a unit of work, which outlines the learning activities. The short term planning specifies the focus for each lesson.

### **Primary Department**

Science is planned and delivered as outlined in the scheme of work and in the 6 year subject-mapping programme, ensuring progression throughout the department. (2 year mapping programmes for Key Stage 1, Lower Key Stage 2 and Upper Key Stage 2) One theme becomes the focus for Science throughout the term and is taught discretely although this may complement a topic that is being taught simultaneously.

### **Secondary Department**

A modular system is planned and delivered as outlined in the 5-year subject-mapping programme ensuring progression throughout the department. One theme becomes the focus for Science throughout the term and is taught discretely although this may complement a topic that is being taught simultaneously.

### **Further Education Centre**

Scientific concepts are applied (as appropriate) through FE lessons and will focus on the application of knowledge and skills e.g. design and technology, cookery etc.

**Policy Reviewed by:** Helen Gaddas

**Date of policy:** May 2018

**To be reviewed:** May 2022