

**St Ippolyts C.E. (VA) Primary School**



**Science  
Policy**

**January 2018**

## Science Policy January 2018

At St Ippolyts School, we aim to develop pupil's understanding of the world through a cohesive programme of biology, chemistry and physics. We recognise that science has changed the world we live in and will continue to do so, therefore, all children will be taught essential aspects of the knowledge, methods, processes and uses of science within a broad and balanced curriculum.

### Statutory Requirements

Statutory requirements for the teaching and learning of Science are laid out in the **National Curriculum in England: Science programmes of study - key stages 1 and 2 (2013)** and in the **Understanding the World sections of the Statutory Framework for the Early Years Foundation Stage (2012)**.

### Aims

The national curriculum for science aims to ensure that all pupils:

- Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.
- 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.
- Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.

At St Ippolyts School, we also aim to ensure:

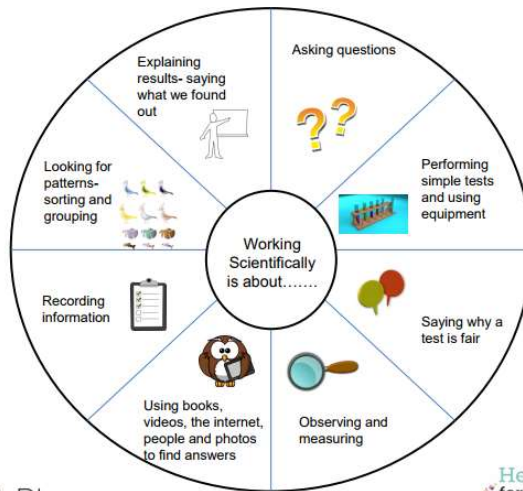
- Appropriate and stimulating scientific experiences are planned to encourage natural curiosity.
- Children develop a positive attitude to scientific enquiry, where they can use their learning powers to independently deepen their knowledge.
- Children develop their investigations skills and have opportunities to complete child-led enquiries.
- Children have regular opportunities to develop their explanatory and communicative skills within science lessons and a wider context.
- Children experience working both collaboratively and independently on scientific tasks.
- Children develop their understanding of working safely and take increased responsibility for their enquiries as they move through the school.
- Activities are planned that support other curriculum areas such as English, Maths and Computing.

### Teaching and Learning

- Children will be provided with a range of learning experiences based on an overarching theme of working scientifically. Within this, there are specific skills which pupils need to develop in each phase, these deepen throughout the key stages.

## Key Stage 1

KS1



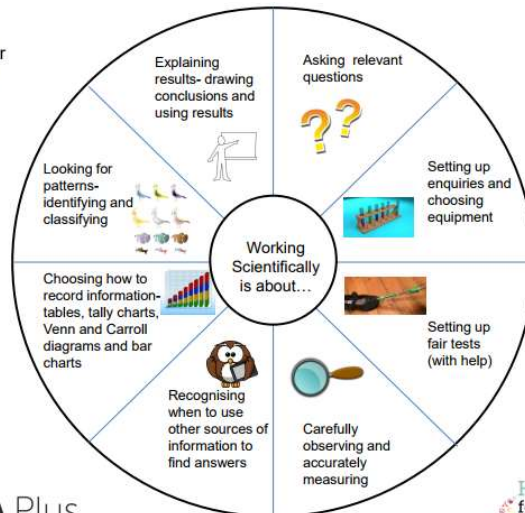
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## Lower Key Stage 2

Lower KS2



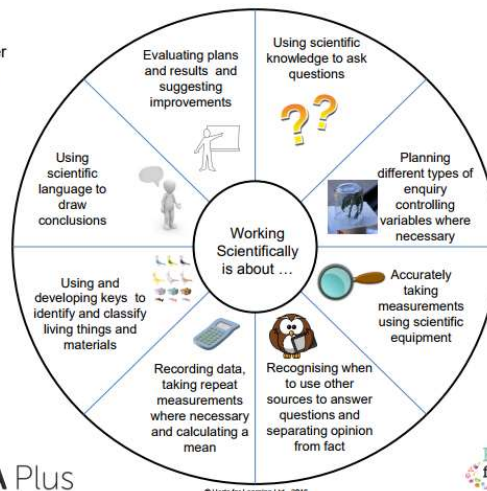
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## Upper Key Stage 2

Upper KS2



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- In KS1 and KS2, teachers draw from their own schemes of work and use the National Curriculum to support planning. Approximately 1 ½ hours a week at KS1 and 2 hours at KS2 will be spent on science to ensure children have adequate time to complete learning tasks.
- Science activities and enquiries will be organised using a variety of grouping strategies and challenges that are most effective in enabling children to meet the learning objects for all abilities.
- Key vocabulary will be displayed in classrooms and children are encouraged to engage with working walls and use scientific language regularly.
- Teachers will plan lessons where children can use their Learning Powers and become more independent learners. This is in line with the principles of Guy Claxton's 'Building Learning Power' (BLP) that the school follows.
- Foundation stage 'science' learning will have a strong emphasis on developing basic enquiry skills and high quality observations as set out in the early learning goals.
- Careful assessment will be made to manage any risks involved in practical activities. .

### Curriculum Enrichment

Our science curriculum is enriched through hands on experiences that allow children to deepen their knowledge and use their classroom learning in different contexts. Science days provide children opportunities to attend different workshops ran by teachers but also outside agencies. The school has strong links with local companies such as GlaxoSmithKline and Children Challenging Industry.

### Assessment

- Work will be marked regularly against lesson objectives shared with pupils. Comments will identify strengths and weaknesses and provide targets for future work. Verbal feedback is also an integral part in ensuring children develop their understanding and so will be given throughout lessons when appropriate.
- Formative assessment will be used to ensure children make progress in each lesson.
- Working Scientifically wheels are stuck in children's science books to allow both children and teachers to reflect on their learning and to assist assessment.
- Knowledge of topic and scientific enquiry will be assessed during school assessment weeks (see school assessment policy). It is vitally important that children develop secure understanding of each key block of knowledge and concepts in order to progress to the next stage. Insecure, superficial understanding will not allow genuine progression: pupils may struggle at key points of transition.
- Science progress is tracked termly and monitored by the Head Teacher.
- Science progress will be reported in annual report for parents.

### Resources

Science resources are stored in the corridor outside Class 4. The resource area will regularly be checked however, staff should check availability of resources prior to the start of a topic and any

resource shortages should be notified to the subject leader. When possible, it is encouraged that teachers should plan activities that take place outdoors and involve the pond, woodland and grass area to aid the delivery of the Life Processes and Living Things

### Equal Opportunities

St Ippolyts has high expectations for every child, whatever their background or circumstances. Children learn and thrive when they are healthy, safe and engaged. In order to engage all children, cultural diversity, home languages, gender and religious beliefs are all celebrated. Whenever possible, materials and resources used will reflect a varied cultural dimension e.g. food, musical instruments, clothing and will be accessible to all children.

### Inclusion

Wherever possible, teachers are encouraged to adapt whole lessons so that they are suitable and accessible to all children. At times, specific changes or adaptations will need to be made to allow individuals to access the resources used within science lessons – this is to enable children of all abilities success within the lesson.

### Safety

- The school follows the advice published in 'Be Safe' as recommended by The Association for Science Education (2011). Teachers need to make risk assessment for situations not covered in 'Be Safe'.
- All teachers will be expected to refer to this publication when planning activities and assessing for any risk to children. The booklet will be kept in the staffroom.
- Further free Health and Safety advice can be sought from CLEAPSS
- Children will be made aware of safety issues that arise in topics or activities and will be trained to use the appropriate equipment and carry out tasks in a safe and responsible manner.
- Children will be increasingly required to identify safety considerations in their planning as they progress through the school.