

The Levett School



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Positivity | Determination | Reflection | Integrity

KS2 Science Policy

<i>Policy agreed by Governors on:</i>	31/01/2023
<i>Review date for Governors:</i>	October 2022
<i>Allocated Group/Person to Review:</i>	Rachael Franklin
<i>Agreed frequency of Review, by allocated person:</i>	Every Year
<i>Last Review date:</i>	May 2022

Lower School, Melton Road, Sprotbrough, Doncaster, DN5 7SB
Upper School, Landsdowne Road, Intake, Doncaster, DN2 6QN

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Statement of Intent

At The Levett School we are committed to being a positive, consistent and resilience building setting that leads to continued education, whether that be another mainstream school or a specialist setting. Pupils are with us for varying amounts of time and therefore our curriculum needs to be flexible, personalised and designed to enable pupils to progress to the next level of their educational journey. We provide a curriculum that enables each child to grow and achieve.

Our Science Intent is to:

- Re-engage all pupils as learners – developing a love of science and learning.
- Inspire and motivate pupils – to follow a career path based on the sciences.
- Enable all pupils to make progress from their individual starting points – developing our knowledge and understanding of science.
- Focus on developing pupils' social, emotional wellbeing and mental health – developing an understanding of the body, brain and nervous systems.
- Provide opportunities for pupils to explore subjects beyond the core curriculum in a thematic approach – linking science topics to the curriculum aiding learning and development.
- To support all pupils to lead healthy and safe lifestyles – by understanding how legal and illegal drugs can affect our bodies and allowing us to make informed choices about our lifestyles.

Legal framework

This policy has due regard to all relevant legislation and statutory guidance including, but not limited to, the following:

- DfE (2018) 'Keeping children safe in Education'
- Dfee Safety in Science Education (2002)
- CLEAPSS Legislation regarding safe use of chemicals.

Roles and responsibilities

Overall responsibility for monitoring the teaching of Science throughout the school lies with the Assistant Headteacher (AHT) for Teaching and Learning and the Subject Leader

The AHT will make decisions on:

- How Science should support, enrich and extend the curriculum.
- The provision and allocation of resources.
- The ways in which Science can benefit the aims and objectives of the school.
- The AHT will also be responsible for overseeing the review of this policy with the science subject leader.

The subject leader will be responsible for monitoring the progression of teaching and learning.

The Science subject leader will also be responsible for:

- Implementing this policy across the school.
- Maintaining resources and advising staff on the use of materials.
- Assisting the AHT in deciding on the allocation of resources.
- Supporting teaching staff, advising and offering to share their expertise and experience through peer teaching, advice and support.
- Deliver additional support within Curriculum Clinics.
- Leading staff training on new initiatives.
- Helping staff to plan future lessons and assessments and advising teachers on teaching methods they may wish to explore.
- Encouraging staff and pupils to develop Science Capital.
- Ensure the PSQM guidance continues to drive science forwards.
- Assisting the AHT in reviewing this policy.

Classroom teachers will be expected to:

- Plan and deliver interesting and engaging lessons that adhere to the national curriculum.
- Provide equality of opportunity through their teaching approaches and methods.

- Keep up-to-date assessment records.
- Ensure pupils' development of skills and knowledge progresses through their learning and understanding of Science.
- Set pupils suitable targets based on prior attainment.
- Maintain an enthusiastic approach to Science.

National curriculum

The school aims to assist pupils in achieving attainment targets set out in the national curriculum. By the end of each key stage, pupils are expected to know, apply and understand the matters, skills, and processes specified in the national curriculum. Pupils will learn a broad range of subject knowledge and draw on disciplines such as maths, literacy, design and technology, engineering and computing.

In accordance with the National Curriculum the school 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

Please see the National Curriculum for Science for the breakdown of the year group aims for Years 1 – 6.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/425618/PRIMARY_national_curriculum_-_Science.pdf

Equal opportunities

- We are an inclusive school that ensures all pupils are provided with equal learning opportunities, regardless of their characteristics or backgrounds. To support this:
- Teachers will adapt how they deliver the D&T curriculum based on the needs of pupils.
- Teachers will adapt targets and the delivery of the curriculum for these pupils.
- The planning and organising of teaching strategies for each subject will be consistently reviewed to ensure that no pupil is at a disadvantage.

- The school will aim to maximise the use and benefits of D&T as one of many resources to enable all pupils to achieve their full potential.

Links to other parts of the curriculum

Science contributes to the teaching of a number of other subjects in school.

English

- Science offers the opportunity to reinforce what pupils have been learning during English lessons. Discussions, debates and
- Evaluating products requires pupils to articulate and formulate their ideas to compare their views with other pupils'; through discussion, pupils will learn to justify their own views and clarify their design ideas.

Maths

- Science links in with statistics, recording results, measures, volume and capacity.
- Pupils will carry out investigations – by doing this, they will learn to read and interpret scales, collect and present data, as well as draw their own conclusions.

PSHCE

- Science lessons will be used to teach pupils how to discuss their own work and the work of others; in addition, pupils will be taught about health and hygiene, including diets, and how to prevent disease from spreading and how the body grows, changes and adapts.

Spiritual, moral, social and cultural (SMSC) development

- Teaching Science offers opportunities to support the social development of pupils through the way they are expected to work with each other in lessons. Science helps pupils to develop a respect for other pupils' abilities. Working in groups encourages collaboration and gives pupils the opportunity to learn from each other and share ideas and feelings. It also allows for discussions about the moral implications for developments within certain scientific fields.

ICT

- ICT enhances the teaching of D&T and provides pupils with additional equipment, extending the possibilities for developing, sharing and recording their work.
- Utilising ICT also benefits pupils by helping them collect information using data logging and graph producing software.

PE

- Links to the movement and functions of the body, muscles, bones and joint movement.
- Develops understanding all nine systems of the body and their functions.

Health, Safety and Hygiene

- In order to maximize their learning experience, pupils are allowed full access to a wide range of materials in Science lessons; however, health and safety concerns are inherent with experiments, including storing materials/chemicals and tools, and the use of equipment.
- PPE; such as gloves, head protection, eye protection and hearing protection is made available to all pupils and teachers.
- The risks of each task will be assessed by the classroom teacher and Science subject leader before lessons and relevant PPE will be compulsory based on their decisions.
- Equipment will be tested before the start of every lesson by the classroom teacher.
- Pupils will be supervised at all times during Science lessons. In order to maintain health and safety within science lessons support staff must be active within pupil groups.
- Copies of the school's Science Experiment Risk Assessments will be available in all classrooms.
- All Chemicals are to be stored in the locked cupboards and are only to be accessed by Science teacher and SLT. All chemicals are to be locked away after use. It is also the duty of staff to recognise and assess the hazards and risks associated when working with food and other materials.
- All pupils will be taught how to use all equipment properly by the classroom teacher before doing so; similarly, pupils will also be fully briefed on the importance of how to correctly use equipment and tools.
- Teachers and TAs will oversee that all science equipment is cleaned properly and placed back in to the correct place within the science cupboard. Science equipment is to be washed by HAND.
- The teacher will undertake a dynamic risk assessment prior to an experiment taking place in order to ascertain if all pupils will be able to undertake the experiment. Alternatives will be offered if pupils are not safe to do so.

Teaching and Learning

The school uses a variety of teaching and learning styles in Science lessons, the main aim of these lessons is to develop pupils' knowledge, skills and understanding. Teachers will ensure pupils apply their developing skills and use of scientific vocabulary throughout lessons.

The school aims to do this through a mixture of whole-class teaching, group work and individual activities. Pupils are given the opportunity to work on their own and collaborate with others, listening to their classmates' ideas and treating these with respect.

Principles for effective teaching include:

- Setting tasks in the context of pupils' prior knowledge.
- Developing understanding and use of scientific vocabulary.
- Promoting active and engaging learning.
- Inspiring, exciting and motivating pupils to develop their understanding.
- Strategies for effective teaching include:
- Ensuring the teaching methods used suit the purpose and needs of pupils.
- Promoting Science Capital.
- Developing a love of science and promoting careers in various scientific fields.

Assessment

Pupil's Science learning will be assessed against the criteria for each topic. Pupils understanding and use of scientific vocabulary in correct contexts will also be noted.

The majority of assessments will be conducted through observations, discussion, work completed in their Science book and photographs used to evidence the experiments pupils have undertaken.

Assessments will be recorded in the end of year reports to parents. A selection of work may be retained as evidence or photographed for this purpose.

Resources and Equipment

The school has a selection of centrally stored materials, tools and equipment to ensure that all pupils have access to the necessary resources. The Science budget covers the cost of equipment. Teachers will be required to maintain the equipment on their sites.

At the start of every school year, the Science subject leader will assess the school's Science equipment and materials to ensure there is sufficient high quality equipment for pupils and therefore allow funds to be allocated where necessary.

Monitoring and Review

This policy will be reviewed every year by the Science subject leader and the Assistant head teacher.

Any changes made to this policy will be communicated to all members of staff.

All members of staff directly involved with the teaching of science are required to familiarize themselves with this policy.

The scheduled review date for this policy is September 2023.