Thomlinson Junior School

'LEARNING THROUGH EXPERIENCE AND ADVENTURE'

Science Policy 2024/2025

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1. Statement of Intent

Curriculum Intent

Our well designed, ambitious curriculum places our pupils at its centre and we aim to deliver a curriculum that truly meets the needs of our children. All children have access to a rich, broad, exciting and balanced curriculum which enables each individual to develop emotionally, socially and intellectually.

We aim to offer a primary curriculum that not only inspires learning but develops skills, knowledge and understanding to successfully equip children for later life. At Thomlinson Junior School our school vision and values permeate all areas of school life and underpin all learning. Along with striving for high academic standards, we place great emphasis on inclusion and the nurturing of well-rounded children. Our curriculum is crammed with opportunities to promote pupils' personal development to ensure we have happy children who are ready to engage and access learning.

Curriculum Implementation

At the heart of our curriculum are our core subjects of English, Maths, Science and PSHE. We also truly value our wider curriculum, covering all other National Curriculum subjects. Progression of knowledge, skills and understanding is carefully planned, reviewed and adapted to ensure that children's learning builds effectively as they move through the school. Learning across the curriculum is sequential and each subject area has a clear rationale behind its design.

We are fully committed to providing our children with a wide and rich range of learning experiences beyond the classroom. Our classroom learning is routinely enhanced by interesting and exciting experiences including field studies, visits, workshops, trips and a range of residentials locally and nationally!

At Thomlinson Junior School we are proud of the reputation of our inclusive school environment. Teachers and Teaching Assistants set high expectations for every pupil, responding to pupils' needs and overcoming potential barriers for individuals and groups of pupils. Lessons are planned to ensure that there

are no barriers to every pupil achieving. Where necessary, pupils have access to specialist equipment and different approaches. Teachers plan lessons so that all pupils can access the full curriculum.

Curriculum Impact

It is important to us that our children achieve excellence not only in the core subjects, but in every curriculum subject. We have lots of ways of measuring and celebrating success across the curriculum, as well as ensuring that children know what they need to do to progress.

We ensure that we maintain a broad and balanced curriculum in the following ways:

- Experienced Subject Leaders for every subject.
- Every subject included in our School Development Plan and Monitoring Schedule - meaning that standards and attainment in every subject are always being checked and improved.
- Accountability to Governance for every subject - all subjects have a nominated governor, who leaders update regularly. It's the job of the governors to ask us challenging questions about how to make our school even better!
- Termly Pupil Progress Meetings.
- Communication with parents about all strands of the curriculum.
- To ultimately learn through experiences and adventures.

2. Science at Thomlinson Junior School

This policy sets out Thomlinson Junior School's aims and strategies for the successful delivery of Science. This policy should be read in conjunction with other relevant school policies such as the Safeguarding, Equal Opportunities, Curriculum, Finance, Teaching & Learning, SEND and Assessment policies. The policy has been developed by the Science Leader (Mrs Brown) in consultation with the SENCO, Leadership Team and teachers. Guidance from consultants and pupil, parent and staff voice questionnaires have shaped and will continue to help shape this policy. This policy is based on government

recommended/statutory programmes of study. This policy is reviewed, at minimum, at the start of every academic cycle.

3. Teaching and Learning

Science is an important core subject in our school as it provides the foundations for understanding the world. Through building key knowledge, concepts and skills, pupils should be encouraged to develop a sense of excitement and curiosity about natural phenomena. They should be encouraged to explain what is occurring through conceptual models and practical activities that progressively build a deep understanding of the science curriculum and 'Working Scientifically'.

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

- develop scientific knowledge and conceptual understanding of science
- 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

4. Inclusion

At Thomlinson Junior School, we aim to enable all children to achieve to their full potential. This includes children of all abilities, social and cultural backgrounds, those with disabilities, EAL speakers and SEN statement and non-statemented.

We place particular emphasis on the flexibility technology brings to allowing pupils to access learning opportunities, particularly pupils with SEN and disabilities. With this in mind, we will ensure additional access to technology is provided throughout the school day and in some cases beyond the school day.

5. Legal Framework

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

- DfE (2014) 'National curriculum in England: Science programme of study'

6. Roles and Responsibilities

Science Leader

- Leadership of science throughout the school to ensure key principles, standards and staff support.
- Provide leadership of science to SLT, parents and the wider community (including STEM partners).
- To link with cluster schools and beyond (e.g. regional network) to develop and improve science provision.
- Raising the profile of science for all stakeholders.
- Monitoring the standards of science and feeding back to staff in a timely fashion so they can act on areas for development.
- Ensuring assessment systems are in place for science.
- Maintaining overall consistency in standards of science across the school.
- Reporting on Science to the Governing Body/Head/Staff.
- Auditing the needs of the staff in terms of training/CPD.
- Actively supporting staff with their day-to-day practice.
- Seeking out opportunities to inspire staff in developing their practice through modelling and sharing new ideas, approaches and initiatives.
- Attending training and keeping abreast with new initiatives.
- Creating Action Plans for Science and supporting a long-term vision which feeds into the whole school development plan.
- Keeping an up-to-date log of all resources available to staff.
- Procuring physical and online resources that demonstrate best value.
- Reviewing the Science curriculum and developing it as needed.

7. Curriculum

At Thomlinson Juniors our aim is to *enthuse, develop and challenge* pupils through an engaging and progressively structured science curriculum and teaching approaches where pupils:

Are given the opportunities to question, enquire and discover. Our children want to learn through experiences and by discovering 'what happens when...?'

TheNationalCurriculumforScience
(https://www.gov.uk/government/publications/national-curriculum-in-england-science-programmes-of-study/national-curriculum-in-england-science-programmes-of-study
) is used as a framework for science content, skills and pupil expectations at our school. To support our key principles, we will deliver this curriculum through:

- A skills-focussed approach to teaching that ensures an appropriate and flexible challenge within the classroom. This approach is called 'dual objective planning' (see Science Handbook for details). The Science National Curriculum states that *"Working and thinking scientifically … must always be taught through the substantive science content".* This is supported by the explicit use of dual objective planning.
- Conceptual threads called 'science models' that link topics and support progressively deeper learning. There are four science models that span the curriculum (see Science Handbook for details),
- Five key science skills that support both knowledge / conceptual development and Working Scientifically to match pupil performance to national Key Stage expectations.

8. Feedback and assessment

Science assessment is on-going and formative. It happens in the classroom as part of the normal teaching process. It informs lesson pitch, differentiated intervention and future planning.

- Pupil attainment is assessed using the milestones set out in the Essentials Curriculum document. Each unit has been matched to the relevant milestones, giving teachers a framework with which to assess the attainment of the children in any given unit. They use their professional judgement, based on what they have seen in the classroom and evidence from work the children have produced, to judge whether each child is working towards age related expectation (ARE), working at ARE or working above ARE. This is recorded after each unit in Scholar Pack and analysed as part of our termly data analysis process. From this, the subject leader can identify any problem areas or units that have

gone particularly well, identify any significant gaps in learning and plans for future units and the following year can be adapted and updated as necessary. In addition, the class teacher can monitor the progress of the children in their class and adjust their teaching as necessary.

The key document to support teachers with this process is the STEM Science Assessment Board which provides criteria matched to year group expectation.

9. Resources

- All resources are procured with the underlining considerations of value: The extent at which the resource impacts on learning and the material cost of this.
- A range of resources is available which successfully supports delivering the Science curriculum and enables all learners to reach their full potential.
- Resources are suitably maintained and replenished when needed, which is overseen by the Science Leader (Mrs Brown).
- Suggestions for getting the very best out of the resources are made available to teaching and support staff by the Science Leader (Mrs Brown).

10. Monitoring and Evaluation

Monitoring standards of teaching and learning within science is the primary responsibility of the science Leader.

Monitoring will be achieved through:

- Work scrutiny.
- Learning walks.
- Observations.
- Pupil voice.
- Teacher voice.
- Reflective teacher feedback.
- Reviewing work displayed/shared on dojo.

- Learning environment monitoring.
- Dedicate Leader and Assessment Leader time.

Evaluation and Feedback will be achieved through:

- Dedicated Science Leader and Assessment Leader time.
- Using recognised standards documentation for end-of-year expectations.
- Written feedback on evaluation of monitoring activities to be provided by the Science Leader in a timely manner.
- Feedback on whole school areas of development in regard to Science to be fed back through insets/staff meetings.

11. Health and Safety

Thomlinson Junior School takes all necessary measures to ensure both staff and pupils are aware of the importance of health and safety.
Both staff and pupils are trained to handle materials, tools and equipment correctly.
Any risk assessments needed in science lessons will be written by teachers planning the sessions and shared with any adults involved in the lesson.

Updated: September 2024
Next review: September 2025