

Northway Primary and Nursery School



Policy for Science

Date of Policy: 19th November 2021
Date approved: 25th November 2021
By: The Governing Board of Northway Primary and Nursery School

Signed: Chair of Governors

Subject Lead: James Taylor
Date of Review: 1st October 2022

Northway:
Together we can achieve
anything
All Learners, All valued,
All achieving...All the time



Introduction:

Northway Primary and Nursery School is a strong and distinctive community, where we value each other as part of the family. We show this through our planning, our teaching, our relationships and respect for each other as individual learners. We are all learners – no matter our age or time within this or another School.

Learning potential is realised most when parents and teachers work in partnership. We believe in our children and we want our children to believe in themselves – they will then 'believe and achieve'. We set ourselves the high standard of: All learners, All achieving, All the time. Our Policy for Teaching and Learning is underpinned by this ethos.

The Northway Curriculum has a golden thread that links a rich tapestry of knowledge, interwoven with key skills and allows children to engage with, connect with and understand their locality and rich cultural offer and take their places as global citizens in the twenty first century.

The Northway Values for Victory exemplifies an ethos that builds community and provides the expectations for excellent attitude and learning behaviour. The curriculum is planned to allow children to explore, evaluate and improve. Children know the high expectations and are encouraged to strive for success in all that they do. Children are nurtured so they can engage with their learning without barriers and reach their own potential. Northway understands that aspiration is good but aspiration for all: all learners, all valued, all achieving...all the time.

Our Curriculum is a progressive programme of study, where children are exposed to knowledge and skills year on year. Children should see the 'big picture' as they progress through school and see building blocks coming into place. They will be immersed in a rich vocabulary and text-base to inspire a love of learning and given the opportunity to share their knowledge. Children can exemplify their prior knowledge and staff teach from this starting point, knowing the expectation for their specific year group. Low state quizzing for pre-assessments endeavour the development of sticky knowledge and post-assessment give children the satisfaction of achievement. Each subject area is taught discretely but has clear cross-curricular links and crossover of skills. We give core subjects and basic skills a strong emphasis but passionately believe in a wide, broad, rich curriculum, where children have deeper learning experiences and develop a life-long love of learning...developing dynamic and industrious citizens for Liverpool and the world who can make a positive contribution.

Excellence, enjoyment, enrichment, progression and relevance are all key principles of our Northway Curriculum from Nursery to Year 6.



RESPECT • TRUST • COURAGE • COMPASSION • FORGIVENESS • PERSEVERANCE • HOPE

1. Statement of consideration of equalities in all policies and procedures

This policy outlines the teaching, organisation and management of Art and Design taught at Northway Primary School. The policy has been drawn up as a result of staff discussion and has the full agreement of the Governing Body. The implementation of this policy is the responsibility of all teaching staff.

2. Intent

Aims

The Northway Curriculum for Science is designed to focus on creating scientists, who are able to conduct their own experiments, to test their hypotheses and have the scientific knowledge to explain core scientific concepts.

Objectives

Science at Northway is branched into:

- Scientific Knowledge
- Working Scientifically

3. Implementation

Scheme of Work

Teachers select from a rich, wide range of schemes that allow for teachers to personalise and adapt to their classes needs and strengths. The width of schemes allow for complete coverage of the National Curriculum.

Safety considerations

With each practical, steps are taken and reviewed to allow for enriching experiments to be conducted in a safe manner.

Strategies

Science utilises a vocab and concept driven approach, from which children can then test, reason and measure. By promoting long term retention of key vocab concepts, children are able to build on their skill set given the progressive curriculum.

Resources (including iPads)

Wide range of resources that promote both working scientifically and scientific knowledge. Along with practical resources, online resources such as Tigttag are used to enhance lessons. Recently, a nature garden has been added to Northway to

allow for children to be more hands on when it comes to classification and adaptation.

Learners who need more

Teachers differentiate lessons according to the needs of their class along with implementing further opportunities to go over previous topics via cross-curricular education and vocab-driven games.

Knowledge Organisers

Used and utilised by teachers to promote key concepts and vocab. With each K.O, links to vocab Kahoots and BBC Bitesize videos are attached to further support children.

Educational Visits / Fieldtrips

Trips are linked to topics in class. Educational visits are frequent in school that allow for a more hands on approach, example – animal workshop where pupils can experience and hold a range of different animals. Nature garden allows for children to conduct bug hunts along with breed tadpoles (useful for life cycles).

4. Impact

Outcomes

Pupils leave Northway with the knowledge, understanding and skills to succeed in further education, while at the same time, installing a love of the natural world and investigative, curious nature.

Assessment

Teachers use pre-assessments to identify pupils understanding and scientific knowledge. All units overlap to allow for opportunities for retrieval practice and formative assessment throughout. Cross-curricular links also allow for further learning and assessment.

5. Progression within the subject

In science, Northway has sequenced units to build upon and revisit modules relating to chemistry, physics and biology.

6. Monitoring and Review

Science is monitored via multiple avenues: pupil voice, book monitoring, fake deep dives and informal lesson observations and discussion.

7. Role of the pupil / parent and Subject Lead

Pupils participate in a wide range of activities that are not just in the classroom of knowledge based. Parents are aware of childrens' achievements via Seesaw and Science awards.