



KING'S NORTHWAY
PRIMARY ACADEMY

SCHOOLS OF CHARACTER
MAKING GREAT LEADERS

Science Policy



GREAT SCHOOLS
TRUST

Document Control

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Introduction:

King's Northway Primary Academy 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 King's 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 King's 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. King's 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 King's Northway Curriculum from Nursery to Year 6.



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

This policy outlines the teaching, organisation and management of Science taught at King's Northway Primary Academy. 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 King's 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 teachers to personalise and adapt to their classes' needs and strengths. The width of schemes allows 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 teaches to promote key concepts and vocab. With each K.O, links to vocab Kahoots and BBC Bitesize vides 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 King's Northway Primary Academy 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. Key skills and knowledge for Science have been mapped across the school using the National Curriculum to ensure progression between year groups. This ensures that children can revisit and build on previous learning as they move up through the school as well as developing their skills throughout the programme of study. Skills learnt and implemented in previous units are revisiting and developed in future units.

6. Monitoring and Review

It is the role of each subject coordinator to keep up to date with developments in their subject, at both national and local level. They review the way the subject is taught in the school and develop yearly action plans to ensure targets are being met and progress is made. The subject leader reviews the curriculum plans for their subject, ensures that there is full coverage of the National Curriculum and that progression is

planned into schemes of work. Termly book studies take place in all curriculum which consists of book monitoring, pupil interviews and learning walks.

7. Role of the pupil / parent

Pupils are expected to engage with Science lessons with enthusiasm and explore new designers, knowledge and techniques alongside their peers. They will share their expertise with their peers and across the school to build knowledge and confidence. Pupils are encouraged to take part in Science competitions and clubs both in and out of school.

Parents are given opportunities to share in their children's Science work through the use of Seesaw and workshops.

