

Biscovey Nursery and Infants' Academy

Teaching and Learning Principles

Subject: Science

'With strong roots we learn and grow together'

School Vision:

At Biscovey Nursery and Infants' Academy we aim to ensure that all children can develop the skills they need to become happy and confident learners who, with guidance and support, can reach their full potential.

Our curriculum ensures that we deliver a range of topics across the age phases which develops sequential learning where pupils know more and can do more, ensuring that they are ready for their next stage in education.

Our nurturing ethos endeavours to support all children and their families. Through this approach we are able to work together so meeting the needs of all learners in our school.

We pride ourselves on delivering beyond the academic curriculum developing a child's individual character. Our core values run through all areas of school life and learning which allows the whole child to develop into a confident and caring young individual. The Biscovey child shows respect, and through self-belief and courage approaches learning with an inquisitive mind.

School Mission Statement:

Biscovey Nursery and Infants' Academy has developed a curriculum and approach to learning with the following principles at the heart:

- For children to know how to be treated and how to treat others.
- For children to happy, confident learners
- For children to reach their full potential
- A nurturing ethos which supports children and their families.

Subject Intent:

We define curriculum as the totality of a child's experience at Biscovey Nursery and Infants' Academy. This includes not only what activities and learning they are immersed in but also the processes involved in how the child learns.

At Biscovey Nursery and Infants' Academy, we have developed a curriculum which is:

Engaging: Our aim is that children enjoy learning science and approach all activities with a high level of engagement. Topics are chosen specifically to meet the interests of our pupils reflecting the background and experience of all.

Enriching: Our aim is that the science curriculum is enriched in a variety of ways: trips; visitors; real world contexts; innovative, stimulating and inspiring experiences; cross-curricular links; purposeful use of the environment and local area; pupil and staff collaboration. All carefully chosen topics have a high-quality text at the heart to promote language and vocabulary development of our young learners.

Unique: We recognise that not only is each child an individual but also each class and each member of staff have unique interests, skills and talents. Our curriculum is designed flexibly to meet the needs of these groups.

To ensure curriculum quality we have addressed the following:

- Learning has been planned carefully through a knowledge progression to allow for progression and depth. Each half term lessons are planned to allow for reflection and progression.
- Teachers ensure that planned lessons allow children to use their scientific enquiry skills.
- Exploration lessons, field investigations, trips and visits from experts are planned to enhance the learning experiences of all learners.

Subject Implementation:

Science teaching at Biscovey Nursery and Infants' Academy aims to give children a strong understanding of the world around them. Outside visitors, trips and investigative field work develops their understanding of the uses of science today and for the future in real life contexts. Children are taught specific skills, vocabulary and knowledge to help them to develop their ability to think scientifically. The skills of scientific enquiry are embedded through sequenced lessons linked to topics. Each lesson is progressive and allows children to revisit, reflect and build upon prior knowledge. Through this approach, we aim for children to know more and remember more. In science lessons, scientific vocabulary is explicitly taught and reinforced through high-quality texts. Children are immersed in language, enabling them to communicate their understanding of science effectively. It is our aim to nurture and develop independent and curious explorers that go on to investigate and question the world around them.

Subject Impact:

We aim for every child to be able to:

- Build strong foundations in the scientific skills of enquiry which help them better understand the world around them.
- Develop an understanding of how science has, and continues to change our lives within their immediate locality as well as the wider world.
- Begin to make connections between Science and world of work as we foster links with the local community and national agencies such as the STEM association.
- Develop and use a rich vocabulary which enables them to articulate their understanding of taught concepts.

Skills Progression:

At Biscovey Nursery and Infants' Academy, we use the objectives from the National Curriculum to ensure good coverage and challenge for all. We carefully track the objectives to ensure that new learning builds on prior knowledge and consolidates understanding showing sound progression across the depth and breadth of the subject.

Within lessons and topics, we ensure sufficient time is given to recall prior learning so that children are able to see and develop links within their learning.

For further information, please see the subject overview grid and the skills progression document.

Contextual example:

For example, when studying senses, pupils in Year One might explore, name and discuss a variety of materials, using their senses to explore them. They will develop and expand their vocabulary in order to describe the properties of materials. They will begin to develop their Scientific skills of enquiry by performing simple tests and recording their findings in a variety of formats.

Teaching and Learning Expectations:

- High quality texts will form the heart of all topics
- Lessons will promote a love of learning
- Activities/questions will promote curiosity
- There will be highly effective cross curricular links between subject areas.
- Regular opportunities for AfL through a range of activities
- Recall of prior learning - quizzes, topic maps, verbal discussion

Working Walls/Displays:

- Key words
- Examples of work linked to topic



Monitoring/Assessment:

- Exit Points (eg: quizzes, performances, writing links)
- Summative Assessment - EYFS, end of KS1 and the end of KS2
- Pupil Conferencing
- Learning Walk/Lesson Observations
- Work Scrutiny