Whitehall Nursery and Infant School

Science Policy

Rationale

Science at Whitehall Nursery and Infant School is a means to provide pupils with learning opportunities to investigate the world around them and to develop and extend their knowledge of natural phenomena. At Whitehall Nursery and Infants School we aim to support, guide and encourage our young budding scientists to develop enthusiasm and a lifelong love for the subject through exciting first hand experiences and opportunities for discovery through play and observation, wherever possible. Through these opportunities, we support pupils to appreciate the **wonders** of the world around them. These positive experiences also create a well-being in the children that **radiates** out through their positive and engaging attitude to science. Whilst working collaboratively to make scientific discoveries, children are taught to show **respect** for the world around them and for the opinions of others. Through other experiences we provide children with, such as inviting in dentists and paramedics, we also aim to develop **ambition** in our children as they are introduced to a variety of opportunities as scientist in the future.

Aims and objectives

Our Science policy follows the guidelines from the National Curriculum and aims to support and encourage, all pupils to:

1. Develop attitudes of curiosity, perseverance and co-operation.
2. Develop confidence to ask questions about the world around them, make predictions and to recognise that their questions can be answered in different ways.
3. To perform simple tests, predict and draw conclusions from their findings.
4. Observe changes over time and find patterns by classifying and comparing.
5. Communicate their findings in various ways, including the use of computing/ICT.
6. Use scientific vocabulary in order to discuss their findings and observations.
7. Co-operate with each other, contribute their own ideas, respect the opinion of others and share ideas.
8. Develop an understanding of scientific ideas that will help them to achieve a greater knowledge and understanding of themselves and their place in the world.

These objectives are delivered through the following science topics, in line with the National Curriculum:

- Animals including humans
- Living things and their habitats
- Seasonal changes
- Plants
- Materials

Science in the EYFS

In Early Years Foundation Stage, the statements of science are taken from the following areas of learning: Communication and language, Personal, Social and Emotional Development and Understanding the World. From a young age children are naturally inquisitive and are keen explore the world around them and investigate how things work; therefore, strong adult interactions during their play enable children to further develop their scientific skills and knowledge. Science learning also takes place during adult led lessons. During both play and adult led sessions, children are encouraged to ask questions, begin to think about how questions can be answered, encouraged to describe what they can see and feel and introduced to new scientific vocabulary.

SMSC and PHSE

All pupils at Whitehall Nursery and Infant School will have access to every aspect of Science Education at all times, in line with the schools 'Equal Opportunities' policy.

Science supports children's spiritual development by providing many opportunities for them to think and reflect on the amazing wonders which occur in our natural world. Children's moral thinking is developed by showing them that the views and opinions of others must be respected and valued. It is also developed in teaching children that we must take care of and show respect for living things in our environment. Science supports children's social development through

opportunities for them to work collaboratively with others to problem solve and investigate. The children's cultural development is supported in improving their understanding of and showing respect for scientific discoveries from different cultures.

Pupils' Experiences

In science, opportunities will be created for pupils to:
-explore the environment around them during walks around the local area and the school grounds to observe seasonal changes, identify types of trees, explore various microhabitats etc.
-take part in educational trips to places such as the farm, Safari Park and the Think Tank Museum to continue to develop their learning in science topics covered in class.
-have external visitors in such as dentists and paramedics, to show children the opportunities for careers as scientists in the future.
- to provide children with opportunities to develop their questioning, observation and investigative skills during science days.
-have first hand experiences of observing life cycles and changes over time e.g. caterpillars growing into butterflies, stick insects growing and changing over time, ducklings and chicks hatching and growing.
-ask their own questions and begin to think of ways of answering their questions e.g. experimenting
-plan their own investigations, to gather and record data to then use to make conclusions.

Science and Inclusion

At Whitehall Nursery and Infant School we teach science to all pupils, whatever their ability. Science forms part of the school curriculum policy to provide a broad and balanced education to all pupils. Opportunities that set suitable learning challenges and respond to each pupil's differing needs are provided to ensure all pupils make progress.

Assessment for learning

Teachers will use a variety of strategies, including discussion with pupils, observations and highly effective questioning as part of on-going assessment during lessons. These on-going assessments will enable staff to be receptive to the needs of the class, addressing any misconception and challenging children where necessary. Before topics, 'cold tasks' are also used to highlight prior knowledge and any misconceptions. These support teachers to ensure that learning is pitched correctly and pupils are given the appropriate level of challenge. At the end of topics or a series of lessons, 'hot tasks' are also used to highlight progression and as a celebration for children of learning which has taken place. At the end of each half term, teachers complete assessment trackers which indicate whether children are working towards, working at or working at greater depth for the topics covered so far.

In Early Years, on going assessments are made during observations, through questioning and through discussions. At the end of each term, assessment trackers are also completed to highlight children's progress towards the early learning goal for Understanding of the Word.

Monitoring

The coordination and planning of the science curriculum is the responsibility of the subject leader, who also:

- supports colleagues by keeping informed about current developments in subject and providing a strategic lead and direction for this subject
- discusses progress with the head teacher and evaluates the strengths and weaknesses in their subject and highlighting areas for further improvement
- arranges time to review evidence of the children's work
- observes science lessons taught by class teacher in order to provide constructive feedback, highlighting positive areas and areas for improvement; directing colleagues to sources of support including in house good practise;
- Provide a termly summary to Governors.

Resources

Science resources are stored centrally and organised according to the area of science they relate to. The Subject Leader monitors the resources and orders items as needed or requested by staff to support the delivery of the curriculum. To support teaching and learning, we also have a range of science related non-fiction books and fiction books which are also available in the library.

This policy will be reviewed every three years.

Signed: K.Kang
Date: October 2023