Science

Portfolio

WEST HOVE
INFANT SCHOOL
A family of friends

Science at West Hove Infants

Science is an integral part of our provision and ethos. It is firmly placed within the context of our aims, visions and values and encompasses our curriculum drivers of standards, engagement, enquiry and diversity.

Science is used to develop the children's creativity, curiosity and awareness of the world around them. We celebrate their achievements throughout the school environment. Children are encouraged to ask questions, predict outcomes and test their ideas practically. We look at the work of scientists and important discoveries from a variety of different cultures, both modern and historical.

Our curriculum aims to give children the ability and skills to produce creative work, explore their own ideas and express themselves imaginatively.

Curriculum

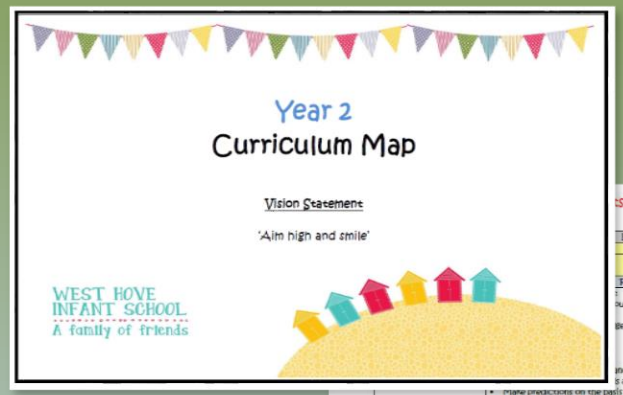
Creativity, curiosity, awareness...

Curriculum

Creativity, curiosity, awareness..

Please go to:
http://www.westhoveinfants.co.uk/our-curriculum/schemes-of-work/
to see our Science curriculum planning

Curriculum Overview



Our Curriculum Maps, detail all of the opportunities for the teaching and learning of **SCIENCE** throughout each year.

Spiritual, moral, social and cultural development…

Subject	We promote ***spiritual*** development	We promote ***moral*** development	We promote ***social*** development	We promote ***cultural*** development
Science	By demonstrating openness to the fact that some answers cannot be provided by Science. By creating opportunities for pupils to ask questions about how living things rely on and contribute to their environment. By opportunities such as our visiting Planetarium which raises questions about the size of the universe and how it might have been formed.	By offering pupils the chance to consider the wonder of the natural world and the inventions which have made the world a better place. By considering that not all developments have been good because they have caused harm to the environment and to people. By encouraging pupils to speculate about how science can be used both for good and not so good.	By using opportunities during Science lessons to explain how to keep other people safe and how they might protect a younger or vulnerable young person. By exploring the social dimension of scientific advances e.g. environmental concerns, medical advances, energy processes in age appropriate language.	By asking questions about the ways in which scientific discoveries from around the world have affected our lives. (For example, there is a rich heritage of scientific discoveries from Hindu, Egyptian and Muslim traditions.)

Please look at our website for further information

https://www.westhoveinfants.co.uk/Science

Curriculum Drivers : S.E.E.D.

Standards

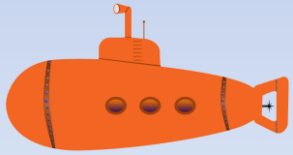
Engagement

Diversity

Enquiry

'Seed for learning'

'Life-long learning'



Consistency of expectations across both sites: planning, moderation. High quality resources, modelling and displays

Having high expectations of all pupils. Thorough assessments in place and a dynamic approach to interventions to ensure all pupils reach their potential: Pupil progress, achievement team & Spotlight meetings

Standards: Achieved by…

Developing a positive attitude to the process of learning: Learning Characteristics, Growth Mindset, Learning Model, Learning Ladders





Teaching children explicitly the importance of having a goal and working hard to achieve it. Target setting, PSHE curriculum and assemblies, Special Mention & Star of the Week

Teaching children about aspirational people: Nelson Mandela, Mary Anning, Neil Armstrong

Challenge for all children at all levels in all subjects: marking and feedback, mastery approach, self/peer assessment, polishing pens, challenge partners, 'Deep Dive' challenges


Standards

The standard of science, both knowledge based and enquiry based is high at West Hove Infants. We celebrate the children's achievements and successes and allow them time to think critically and make changes to their own work.

Standards

We celebrate children's achievements and successes throughout our school environment.

High quality displays in classrooms and around the school environment celebrate and reflect cultural diversity.

Displays

Engagement

'Stunning Starts', 'Fabulous Finishes'

Local environment: walks, beach visit, Wish park

Visits and visitors: e.g. Zoolab, Space Dome

Challenge for all: Challenge Partners, Professor Prove it, 'Deep Dive' challenges

Theme days: Superhero Day, Art Day, French week

Learning outside. Active Learning. Sports & PE

Use of 'Learning Model'. Brain breaks. Talk for Writing

Using children's ideas as starting points. Wonderful World of Me. Home Learning Projects

First hand experiences. Investigations. Problem Solving. Mastery & Challenge. Cross curricular links

Clubs: Storybones, Lego club, Science, Art & Craft etc!

active learning

first hand experiences

visits and visitors

Engagement

Children are encouraged to work independently and collaboratively in groups


The children at West Hove Infants are passionate about Science. Their curiosity and enthusiasm shine through during these lessons.

Creative and Critical thinking: Growth Mindset, Learning Characters

Expressing opinions. Listening to and respecting other's opinions

Investigations & Problem solving. Exploring maths and science concepts: Lego club, Science club

Team work: Discussion and Negotiation

Enquiry: Developed through:

Reasoning and Reflecting Justifying: 'Professor Prove It'

Challenge Partners

Generating own questions.

Questions which promote exploration and discussion of ideas – no right or wrong answers

Mastery – Depth of Understanding

Learning through Play: Active Learning, Exploring, Innovating, Creating

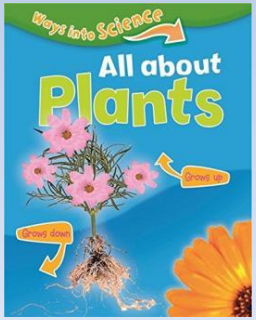
Scientific knowledge and conceptual understanding

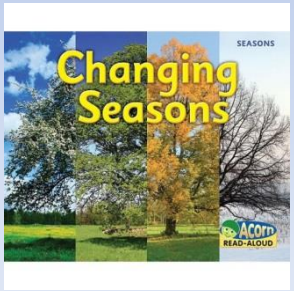
The national curriculum for science states:

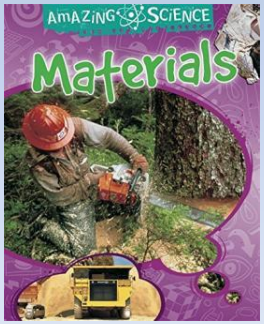
'The programmes of study describe a sequence of knowledge and concepts. While it is important that pupils make progress, it is also vitally important that they develop secure understanding of each key block of knowledge and concepts in order to progress to the next stage.'

To develop and consolidate this knowledge and understanding, we have high quality texts available in classrooms which cover a range of objectives from the national curriculum.

These texts are used both in independent and adult led learning and can again lead to more questions about important scientific discoveries in our world.







Working scientifically

The national curriculum for science states:

'Working scientifically' specifies the understanding of the nature, processes and methods of science. Working scientifically might be embedded within the content of biology, chemistry and physics, focusing on the key features of scientific enquiry, so that pupils learn to use a variety of approaches to answer relevant scientific questions. These types of scientific enquiry should include: observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing (controlled investigations); and researching using secondary sources.'

Diversity: Through celebration and awareness of…

Festivals: Eid, Diwali, Christmas, Chinese New Year

Respect: Challenging stereotypes, Behaviour and Anti-Bullying, Restorative Justice, Refugee Week

Local community: Children's Parade, Let's Dance

Diversity of language: Sharing home languages, French

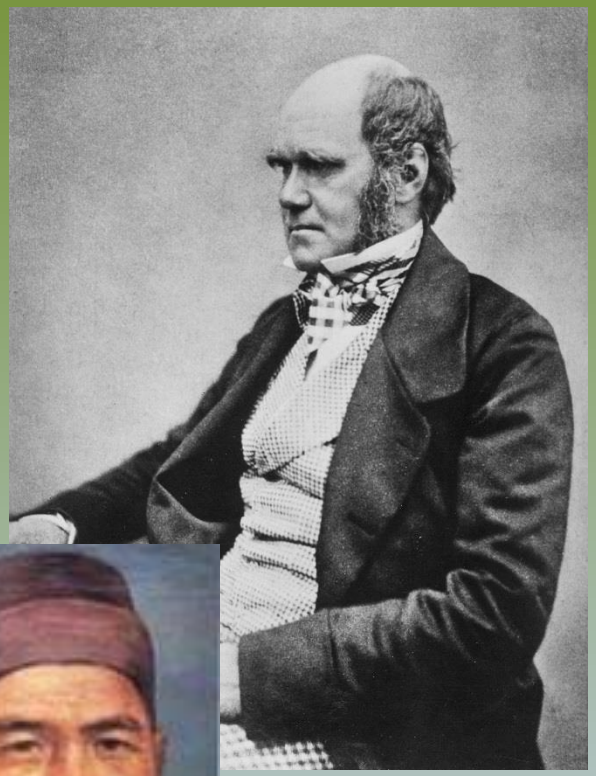
Knowledge of other cultures and communities both in school and further afield: Around the World, Rainforests, French Week, people from different cultures/ countries

British Values: preparation for life in modern Britain

A PSHCE curriculum that explores the diversity of gender representation, race, religion and family units in our community

Awareness of others: Displays, Wonderful World of Me!

From the start of Reception, all children are exposed to a wide range of scientific discoveries from different times and cultures. They will get to know some scientist's names, who have been influential in how we see science as a subject today. We look at work from a variety of countries and cultures and aim to instil knowledge, curiosity and enjoyment.



CULTURAL DIVERSITY

Gardening Club..

Gardening Club is a very popular club which is run by dedicated members of staff and has strong links with the National Curriculum. It runs on a weekly basis and is open to children in Y1 and Y2.

Community Involvement...

We have links with Brighton and Hove Museum, the Booth Museum and local nature reserves.
We invite local scientists into school to talk to the children about their work.
We also aim to instil a sense of awe and wonder by holding interactive science workshops.

The Year 2 children love having the Space Dome visit school at the beginning of Autumn term.

It encourages them to build their knowledge about the universe around them whilst being a perfect platform to feed their curiosity and questioning skills.

How can I support my child at home?

- Try to find time to make full use of the opportunities for 'science talk' that aris out of everyday domestic contexts.
- Encourage your child to keep records in scrapbooks or notebooks of wildlife in the garden, and to make comparisons between different species of birds, for example.
- Play 'What if?' in a scientific context. Talk to your child about questions such as 'What if the sun never shone?'
- Look for scientific principles in picture books, stories and poems and prompt discussion of them.
- Look at the British Science Association's website and its CREST Star CREST Star Investigators activities aimed at 5-12 years old children. old children. http://www.britishscienceassociation.org/web/ccaf/CRESTStarInvestigators/TStarInvestigators/index.htm

How can I support my child at home?

Local opportunities which may be of interest to your child:

- Herstmonceux Science Museum (and Observatory)
- Booth Natural History Museum, Dyke Road.
- Arundel Wildfowl Trust
- Sussex Wildlife Trust at Woodmancote near Henfield.
- Creative Science, Art & Technology Workshops run by The Curiosity Hub – a leading provider of STEAM (Science, Technology, Engineering, Arts & Maths) enrichment in Sussex, UK.

London:

- Science Museum, Exhibition Rd, SW7 2DD
- Natural History Museum

Useful websites and publications...

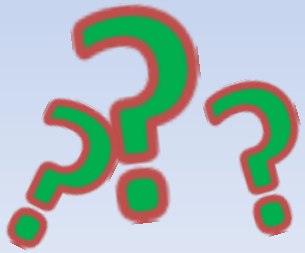
www.nhm.ac.uk/education The Natural History Museum

www.sciencemuseum.org.uk The Science Museum, London

www.brainpop.com animated educational site for children

www.sciencekids.co.nz Fun Science games for kids! (Includes fun experiment ideas too!)

www.crickweb.co.uk Free interactive Science games.
http://www.britishscienceassociation.org/web/ccaf/CRESTStarInvestigators/index.htm Look at the British Science Association's website and its CREST Star Investigators activities aimed at 5-12 years old children.



Do also have a look at our ‘My Little Book of Fun Things to Do’. These have been sent home but are also available on our website: www.westhoveinfants.co.uk

Please Insert child’s photo Or drawing of themselves here

Look at the fun things to do in your year group and see how many activities you can tick and date to say you have done!

We hope that you have fun completing you list ☺

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Well done for completing all your fun activities!

Please let us know below any more fun things that you like to do…

Year R		√	Date
Activity			
Make mud pies			
Stroke a small animal			
Blow bubbles			
Roll down hills			
Splash in puddles			
Dance like no one is watching			
Make a den			
Pick fruit and eat it			
Play in the snow			
Visit a farm			
Plant a bulb and watch it grow			
Go on a crunchy leaf walk			
Fly a kite			
Post a letter			

Year 1		√	Date
Activity			
Build a sand castle			
Make some biscuits & eat whilst warm			
Make a puppet			
Put on a puppet show			
Borrow a book from the library			
Go on a trip to the seaside			
Carve a pumpkin			
Make a daisy chain			
Dance like no one is watching			
Go on a winter walk			
Look up at the stars on a clear night			
Walk barefoot in the sand			
Collect shells and pebbles to decorate a plant pot			
Keep a collection of some sort			

Year 2		√	Date
Activity			
Play a musical instrument			
Go on a picnic			
Plant a seed and eat what grows			
Visit a museum			
See live music			
Perform a dance			
Collect snails and race them (put them back once you've finished)			
Have a water fight			
Play in the snow			
Join an extra-curricular club			
See a butterfly hatch			
Talk to an old person			
Make your own ice lolly and eat it			
Take a selfie			