



# Science at Dean Field

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# How do we teach science?

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- Weekly Science lessons
- Science week
- Across the curriculum
- EYFS - understanding the world.

# Science at Dean Field

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Children are naturally curious. Science at primary school nurtures this curiosity and allows children to ask questions and develop the knowledge they need to answer those questions.

Primary science helps pupils to:

- investigate problems.
- learn how science works.
- Discover why science matters in the world.
- Understand how to work scientifically

# Working scientifically

We encourage all children to work scientifically in their science lessons. This allows children to understand and ask questions about why they are completing a specific task.



Working Scientifically at Dean Field



Asking questions



Making predictions



Setting up tests



Identifying & Classifying

Observing and measuring



Recording data



Interpreting and communicating results



Evaluating

# Diverse curriculum

The links made between the children's diversity, cultural capital and the curriculum are meaningful and build on the existing requirements of the National Curriculum.

Our science topics allow children to see how Science is integrated through everyday life and their diversities. As individual schools, with different cultures and backgrounds, we aim to prioritise and cater to the needs of the children in our schools.

This links to our possibilities driver, with the aim to provide children with a feeling that a career in Science is possible for anyone with an interest and one that they can achieve, whatever their background.



# Must knows

- For each year group and topic, we provide must knows. These must knows are designed to be used at home by parents as part of homework and revision in school to support work in lessons and to recap precious learning.

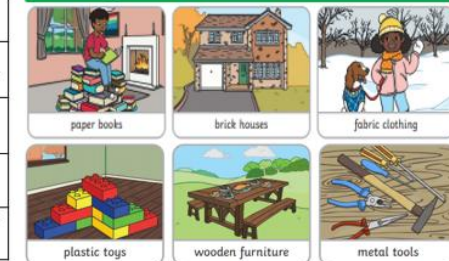
## Year 1 - Autumn 1 - Everyday Materials

New vocabulary	
object	A thing that can be used. For example, a chair, window, pencil, scissors.
material	A material is what the object is made from.
rough	Feels and / or looks uneven and bumpy.
smooth	Feels and/ or looks even and not bumpy.
shiny	Glowing with light.
dull	Objects that are not shiny.
absorbent	A material that can soak up liquid easily.
waterproof	A material that does not let liquid pass through it.
bendy	An object that can bend easily into a curved shape.
stiff	Something that is not easy to bend.

## Names of materials



## Objects and their Materials



### Year 5 Summer 2 -Earth and Space

New Vocabulary	Definitions	Key Knowledge
sun	A huge star that Earth and the other planets in our solar system orbit around.	<p>It appears to us that the Sun moves across the sky during the day but the Sun does not move at all. It seems to us that the Sun moves because of the movements of Earth.</p>
star	A giant ball of gas held together by its own gravity.	
moon	A natural satellite that orbits earth and other planets.	
spherical	A round 3D shape in the shape of a ball.	
satellite	Any object or body in space that orbits something else. For example the moon is a satellite of Earth.	<p>Earth rotates (spins) on its axis. It does a full rotation once in every 24 hours. At the same time that Earth is rotating, it is also orbiting (revolving) around the Sun. It takes a little more than 365 days to orbit the Sun. Daytime occurs when the side of Earth is facing towards the Sun. Night occurs when the side of Earth is facing away from the Sun.</p>
orbit	To move in a regular, repeating curved path around another object.	
rotate	To spin. E.g. Earth rotates on its own axis.	<p><b>Influential Individuals</b></p> <p><b>Mao Jemison</b> In 1992, she became the first Black woman to go into space.</p>
axis	An imaginary line that a body rotates around. E.g. the Earth's axis runs from the North Pole to the South Pole.	<p><b>gravitational force</b> - a non-contact force caused by objects with mass pulling each other</p>
Earth	Our planet we live in is called Earth.	<p><b>geocentric model</b> - a model that puts Earth at the centre of the Solar System</p> <p><b>heliocentric model</b> - a model that puts the Sun at the centre of the Solar System</p>
planets	A large object that orbits the star. In our solar system there 8 planets called Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.	<p><b>Our solar system (not to scale):</b></p>
Solar System	A solar system is a space where is a star and planets revolve around it due to gravity. Our solar system is called the Milky Way.	

# Science disciplines

Areas of Science that we are taught can be divided into Chemistry, Biology and Physics.

## Chemistry

Rocks

States of Matter

Properties and Changes of  
Materials



## Physics

Electricity

Forces

Forces and Magnets

Light

Sound

Earth and Space



## Biology

Animals Including Humans

Living Things and Their Habitats

Evolution and Inheritance

Plants



# Monitoring science

All subjects are regularly monitored in a variety of ways at Dean Field. Science is monitored by Miss Jagger through a yearly action plan which focuses on embedding, monitoring and introducing aspects to maintain a good curriculum for science across the school for all children.

## Some ways this is done is by:

- Conducting pupil voice interviews
- Internal/cross Trust and external deep dives (lesson observations and book looks)
  - Learning walks
  - Data drops and the analysis of this
  - Resource monitoring
- Staff training (webinars, meetings, courses)
- Subject lead keeping up to date with the science curriculum, research and training



# Useful website to support science at home

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<https://www.stem.org.uk/home-learning/primary>

Free activities and materials put together by subject experts.

<https://explorify.wellcome.ac.uk/blog/explorify-during-schoolclosures>

A set of collections of activities based on the primary Science curriculum to do at home.

<http://www.show.me.uk/section/science>

Science and technology games, collection objects, homework help and more from museums and galleries.

# Useful website to support science at home

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<https://pstt.org.uk/resources/curriculum-materials/Science-Fun-at-Home>

Simple and engaging practical science activities.

<https://www.bbc.co.uk/bitesize/primary>

Videos, quizzes and practical activities to do at home.