

SCIENCE



**The spark that
ignites our curiosity**



Science, Technology, Engineering and Maths

2024-25	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	Scientists and Inventors	Seasonal Changes – Autumn and Winte	Everyday materials	Seasonal Changes – Spring and Summer	Plants	Animals including Humans
Year 2	Living Things and their Habitats	Scientists and Inventors	Biodiversity/Minibeasts	Plants	Uses of Everyday Materials	Animals including Humans
Year 3	Forces and Magnets	Scientists and Inventors	Rocks	Light	Plants	Animals, including humans
Year 4	Living Things and their Habitats	Scientists and Inventors	Electricity	States of Matter	Sound	Animals including Humans
Year 5	Properties of Materials	Scientist and Inventors	Forces	Earth and Space	Living Things and their Habitats	Animals including Humans

Science at Town Farm Primary School

Early Years Teaching Resources - BBC Teach

KS1 Science - BBC Bitesize

KS1

Science

Part of [Learn & revise](#)

+ Add subject to My Bitesize

Filter by year

Year 1

Year 2

Games

Game - Dinosaur Discovery
Find out all about dinosaurs by doing tests and experiments on a Dinosaur Discovery!

Game - Galaxy Pugs
Want to know more about how the world around you works? Join the Pug Star and explore animals, plants and materials with the Galaxy Pugs in this new KS1 Science game.

Early Years Teaching Resources

Free teacher classroom resource. These Class Clips are suitable for use with children at Early Years Foundation Stage (EYFS) in England, Wales and Northern Ireland and Scotland.



Hey Duggee - The 'Work It Out' Badge

A collection of short Hey Duggee videos and simple activity sheets for use in Reception and Early Years settings created to help children explore and identify different feelings.



Go Jetties

We've teamed up with CBeebies to provide these Funky Facts for you to use in your classroom. You and your class can now explore places all around planet Earth with Ubercorn.



Feeling Better

A collection of short films for EYFS and KS1 children with Dr Radha Modgil, exploring a range of feelings and emotions as well as providing talking points and tools for feeling better.

KS2 Science - BBC Bitesize

KS2

Science

Part of [Learn & revise](#)

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Filter by year

Year 3

Year 4

Year 5

Year 6

Games

Game - Operation Ouch! Billy Bones and the Snot Zombies
Learn facts about different human bones, escape the snot zombies and help the doctors put Billy Bones back together in this interactive Science game for KS2 students.

Game - Junkateers
Join the Junkateers on their mission to tidy up the planet. Work scientifically by sorting through scrap and running experiments to identify materials for recycling.

Game - Earth Squad, Go!
Join the Earth Squad and use your Science skills to complete the missions. Don't forget to catch the vines and collect stars on the way!

Game - Science Bots
Join the Science Bots in Space and help complete their experiments. Learn and test topics: Earth and Space, electricity, forces and magnets, light and sound.

VISIT LONDON WETLAND CENTRE

Discover mood-boosting wetlands

Wander through wild spaces that give you room to breathe



Park Map

Bedfont Lakes Country Park



Bedfont Lakes Country Park



BRITISH
SCIENCE
WEEK 2025

BRITISH
SCIENCE
WEEK
7-16 March 2025



ACTIVITY
TASTER PACK

A range of activities to be
run with children aged
under 5 up to 14 (approx.)

britishscienceweek.org



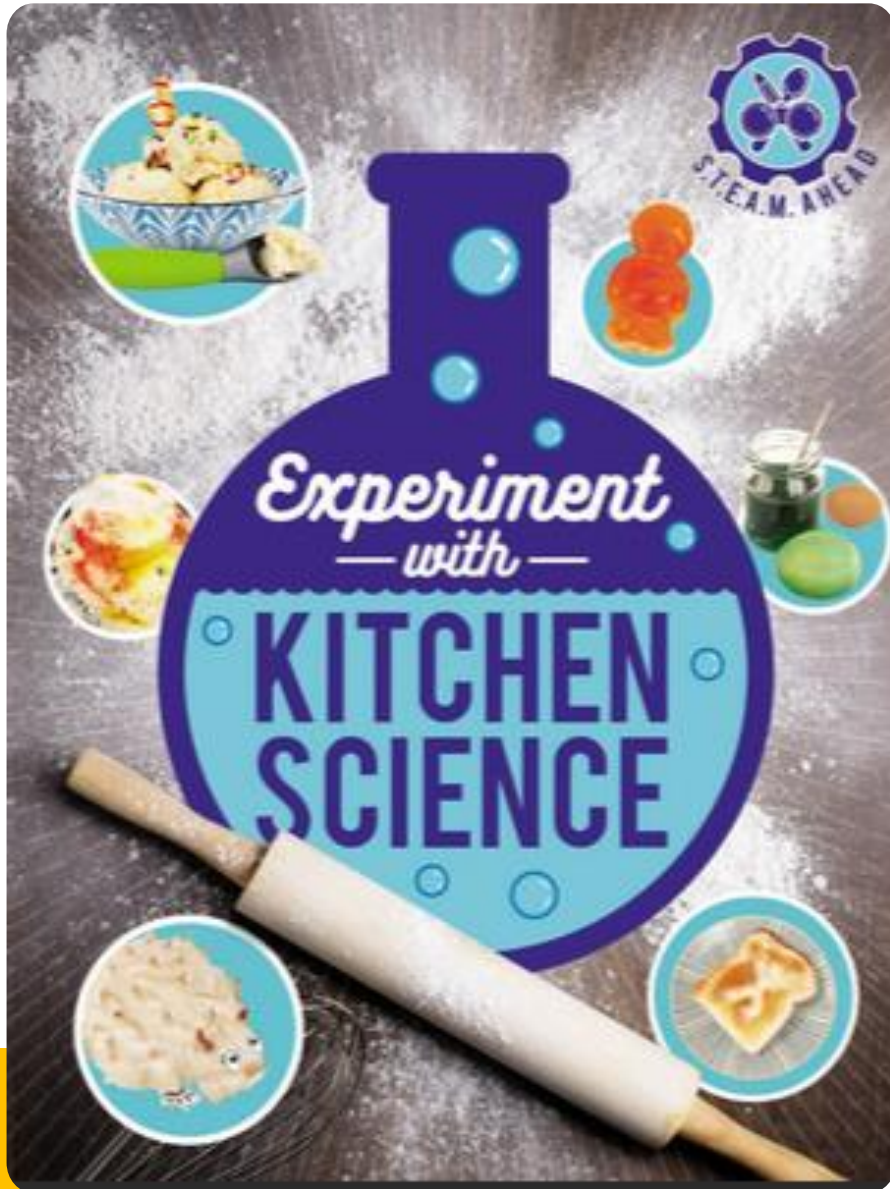
https://www.kiwico.com/diy/lists/kitchen-science-experiments-for-kids-ages-3-to-8?srsId=AfmBOoo_H6X43sOdLOlwqwiOn4OKb2Im8q8wSZQ38Cp-OQR_bn4IX5ek

Useful links to websites with science activities and videos you can try at home.

Science Bob - A brilliant website full of simple experiments you can try at home - <https://sciencebob.com/>

Wow Science Games - A website full of interactive games, experiments and videos - https://wowscience.co.uk/?sfid=27&_sfm_resource_type=Games

Twig Science Reporter - New news update video every Thursday to show developments in science across the world that week - <https://www.twigsciencereporter.com/>



What are the essentials for kitchen science experiments?

- Food Colouring
- Vinegar
- Oil
- Bicarbonate of Soda
- Syrup
- Salt
- Milk
- Washing up liquid
- Yeast
- Cornflour

What type of chemical reaction will occur when you mix Mentos with Coke?



Cola Super Fountain

The Science Behind the Experiment – A Guide for Adults

The mint sweets provide a surface for the gas in the cola to cling on to. The bubbles of gas get larger and as they are lighter than the cola liquid, they quickly shoot to the top of the bottle. This all happens very quickly and a fountain of cola and gas shoots up. There is no true chemical reaction in this experiment.

Layered liquids

Find out how some liquids separate into layers, and how you can make them mix together.

144 Three-in-one

1. Put four tablespoons of water in a tall glass and add a few drops of food dye.
2. Add four tablespoons of vegetable oil to the glass. Don't stir the oil and water.
3. Then, add four tablespoons of golden syrup. Don't stir it, and watch what happens.



When water, oil and syrup are put together, they separate into layers. The layers form according to how dense the liquids are. How heavy and how spread out the particles inside them are – see the "Density" box on page 51. Oil is less dense than water or syrup, so it sits on the top. Syrup is more dense, so it sinks to the bottom.



145 Stir it up

Repeat activity 144, but stir the oil, water and syrup well with a spoon. Leave the mixture for five minutes. What happens?

146 Different order

Add water, syrup and oil in a different order. Does it make any difference to the end result?

Whichever way you introduce oil, syrup and water, or try to mix them, eventually they will always separate into layers, with the oil on top and the syrup at the bottom.

Density

Liquids

Separate

Why do you think will happen when we mix water, syrup and oil in the same container?

The Science Bit: Simply put, the liquids you have poured into your glass separate into different layers because of their contrasting densities. Heavy liquids such as honey and maple/corn syrup sink to the bottom while lighter ones such as vegetable oil and lamp oil float to the top. These differences in weight create a layered column effect in the glass. The same applies to the objects dropped in. Once an object reaches a layer that is denser than itself, it will float above that layer.

- Mixing and Separating Materials -

Mixing & Separating Materials



Different materials will often need to be mixed together or sometimes they are already mixed together and need to be separated. There are a number of different ways to mix and separate materials.



Mixing and Separating Materials

Soluble



Substances that dissolve in water, like salt, sugar and instant coffee, are called soluble substances. These substances dissolve completely in water to make a solution.

Mixing and Separating Materials

Dissolving



Some solids or substances dissolve in water when you mix them together. When a substance dissolves, it looks like it has disappeared. However, although the substance cannot be seen, it is still there as it has just mixed with the water to make a solution.

Mixing and Separating Materials

Sieving



If there is a mixture of large solid particles and small solid particles, for example stones and soil, they can be separated by sieving.

Mixing and Separating Materials

Filtering



A mixture of water and a solid like sand can be separated by filtering. The mixture of sand and water is poured into the filter funnel, which is lined with filter paper. The water can pass through the paper to collect in the beaker. The sand particles cannot pass through the filter paper and instead collect in the filter funnel.

Mixing and Separating Materials

Evaporation



Evaporation is good for separating a liquid from a solution. For example, the salt from salty water can separate from the water by boiling the solution. The water will evaporate until it is all gone. The salt will be left behind. If we collect the water vapour that evaporates we can cool it to form water again.