

Time: 1½ hours.
Age group: KS2



Primary Workshops

Enjoy science, stimulate curiosity and have fun

These are our workshops and the topics within the IPC they support – they don't all cover everything! They are designed, mainly for specific age groups, to develop scientific skills.

We can be flexible.

Please ask for details.

*These workshops need extra help from adults or older pupils. Please discuss this with the Workshop Leader.

Those with titles printed in black are available in all areas. The others are available in some areas only.

Early Years: "Sand and water"

Story Science *

Simple, accessible science investigations, linked to a story book. Parents and carers can be invited to take part.

Space: classroom

Time: 1 hour

Age group: N/R/Y1 and Y5/Y6

Milepost 1: "The circus is coming to town" & "Push me, Pull You"

Carousel*

Materials and forces. This is a set of five investigations based around the theme of a circus.

Space: hall or classroom

Time: 1½ hours

Age group: Y1/Y2

Milepost 1: "The magic toymaker"

Play*

Pupils investigate a variety of toys to think about how they work. Concepts covered include pushing, pulling and twisting, and introducing fair testing.

Space: hall

Time: 1¼ hours

Age group: Y1/Y2

Milepost 1: "Science - It's shocking"

Circuits*

This is a set of six short circuit investigations.

Space: hall

Time: 1¼ hours

Age group: Y1/Y2

Milepost 2: "Science – Bright Sparks" & Milepost 3: "Science – Full Power!"

Solar Circuits

How a simple circuit is affected by a sequence of small changes. This is a number of small investigations some of which use solar cells.

Space: classroom and outdoors (weather permitting). Lamps will be used in bad weather.

Milepost 2: “Science – Feel the Force!”

Rollers

How the energy from the release of an elastic band powers a small toy (bandroller). This is an investigation, as the pupils make bandrollers, of the variables affecting how they work. The class keeps the bandrollers.

Space: hall or classroom

Time: 1¼ hours.

Age group: Y3/Y4, Y5/Y6

Milepost 3: “Black Gold”

Black Gold Challenge

In this workshop (specifically for Y5/6), thirty children are challenged to produce a small scale version of the oil and gas industry. They must drill for oil, transport it by pipeline, refine it into fractions, transport it by rail to a terminal and work out a safety system for the railway.

Space: hall

Time: 2 hours

Age group: Y5/Y6

Milepost 3: “Making new materials”

Fire

The origins and properties of waxes, changes of state and non-reversible changes. This is a lively interactive discussion, easily differentiated to focus on specific topics.

Space: classroom or hall with electrical point

Time: 1¼ hours

Age group: KS2

Fizz!

The pupils use litmus to identify acids and then design a fair test to investigate the effect of temperature on an acid/carbonate reaction.

Space: classroom with at least one sink.

Time: 1½ hours.

Age group: Y5/Y6

Separating

Pupils work through a sequence of activities to separate a dry mixture, look at dissolving gases, and observe an exciting nucleation.

Space: classroom

Time: 1¼ hours.

Age group: Y5/Y6

Studying Substances

Pupils try ten different experiments to test their ability to follow instructions, observe carefully and record accurately.

Space: hall

Time: 1½ hours

Age group: Y5/Y6

Milepost 3: “Making things go” & “Fascinating Forces!”

Buggies

How the energy from the release of air in a balloon powers a small car (buggy). As the pupils make buggies, they investigate the variables affecting how they work. The class keeps the buggies.

Space: hall or very large classroom

Time: 1½ hours

Age group: Y3/Y4, Y5/Y6

Milepost 3: "Space explorers"

Space*

Simple investigations into phases of the moon, the solar system, stars, the night sky, and shadows.

Space: hall

Time: 1½ hours

Age group: Y5/Y6

Other workshops which might be of interest.

Air*

Forces: *identify the effects of air resistance*

Context: how things move through the air and how their movement can be altered.

These are a set of contrasting investigations making gyrocopters, hoopsters and kites.

Space: hall

Time: 1½ hours

Age group: Y5/Y6

Boats

Forces: *identify the effects of ... water resistance*

Context: how things float (and sink) using different materials and making different boat shapes.

This is a sequence of short investigations making boats and rafts.

Space: classroom with access to a tap

Time: 1½ hours

Age group: Y3/Y4, Y5/Y6

Citrus

Y6 Animals including humans: *recognise the impact of diet*

Context: how much Vitamin C (relatively) is found in different citrus fruits.

This is an investigation by pupils, discussing fair testing and accurate results.

Space: classroom with at least one sink.

Time: 1½ hours.

Age group: Y5/Y6

Light

Light: *notice that light is reflected from surfaces; recognise that light from the sun can be dangerous ...; recognise that shadows are formed when the light from a light source is blocked by a solid object; find patterns in the way that the size of shadows change.*

Context: this is a set of five short investigations comprising reflection, casting shadows, how shadows change during the day, light being an energy source.

Space: classroom

Time: 1¼ hours.

Age group: Y3/Y4

Recycling

Context: pupils think about recycling in general and then use old sugar paper to produce small pieces of new paper, and examine different combinations of new fibres.

Space: classroom with sink

Time: 1½ hours

Age group: Y3/Y4, Y5/Y6

Wind

Context: pupils design a model wind turbine and investigate variables to improve its efficiency.

Space: hall or large classroom

Time: 1½ hours

Age group: Y5/Y6

We have over fifteen years' experience of supporting and inspiring practical and investigative science in thousands of schools.

Tell us what you want.

Ask us what we can do.

To book workshops, please contact us:

on 01582 612214 (answerphone)

or at email@spherescience.co.uk