

Science

All children – regardless of gender, starting point or background – will have the opportunity to engage with a high-quality science education. They will be equipped with the knowledge, skills and vocabulary to understand how science can be used to explain what is occurring, predict how things will behave and analyse caused. We intend to inspire a sense of enjoyment and curiosity about science.

Everyday Materials

Autumn 1 & 2

Igniting Prior Knowledge:

Year R (Understanding the World: The Natural World)

- Objects can be made of different materials .
- Materials can feel different.
- Materials can look different.
- We can sort materials according to how they look and feel.



Key Vocabulary:

Object	Shiny
Paper	Dull
Plastic	
Metal	
Wood	
Glass	
Rock	
Brick	
Fabric	
Foil	
Bendy	
Stiff	
Stretchy	

New Knowledge:

- All objects are made of one or more materials.
- Materials can be described by their properties e.g. shiny, stretchy, rough, opaque, transparent, waterproof etc...
- Materials can be grouped together on the basis of their simple physical properties e.g. stretchy, rough, smooth.
- Transparent means you can see through the material
- Opaque means you can not see through it.
- Waterproof means the material does not soak up the water or let water through it.
- Absorbent means the material soaks up liquid.
- Some materials can be in different forms with very different properties e.g. plastic.



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Seasonal Changes

Autumn, Spring & Summer

Igniting Prior Knowledge:

Year R (Understanding the World: The Natural World)

- ☐ The environment is everything around me.
- ☐ The environment can change.
- ☐ In winter, the weather gets colder. It may snow and we see lots of ice and frost. Lots of trees don't have leaves on them.
- ☐ In Autumn, the weather starts to get colder again, and we see more rain and wind. Leaves start to turn brown, red and yellow and fall off some trees.

Year R (Melting and Freezing)

- ☐ Ice is frozen water
- ☐ Ice is hard
- ☐ Water freezes when it is very cold
- ☐ Ice melts when it gets warm

Key Vocabulary:

- | | |
|-------------|-----------|
| Seasons | Deciduous |
| Sunny | Evergreen |
| Rain | |
| Windy | |
| Snow | |
| Temperature | |
| Day length | |
| Nuts | |
| Berries | |



New Knowledge:

- ☐ In the UK there are four seasons: Spring, Summer, Autumn and Winter.
- ☐ This term, it is Autumn then Winter.
- ☐ In Autumn, on some trees, the leaves will change colour and then fall off the tree
- ☐ Some plants will produce seeds, nuts or berries e.g. horse chestnut (conkers), pinecones, acorns, blackberries, apples.
- ☐ In winter, some trees are bare (have no leaves) and some trees/bushes are still green.
- ☐ The change in weather causes many other changes. Some examples are the types of animals found outside, seed and plant growth, leaves on trees, and where animals and plants live.
- ☐ In the UK, during autumn and winter, daylight length gets shorter each day (it gets light later in the morning and dark earlier).
- ☐ There are lots of different types of weather: rain, sun, cloud, wind, snow, sleet, hail etc
- ☐ Weather changes with the seasons - Autumn (colder, rain, sunny, windy) Winter (cold, sunny, rain/hail, snow/sleet, frost, fog)
- ☐ In the UK, it is usually colder and rainier in winter

