

**What I should already know**

- Distinguish between an object and the material from which it is made
- Understand the definitions of: hard, squashy, smooth, absorbent, bumpy, opaque, dull, brittle, translucent, rigid, transparent, soft, flexible, rough, waterproof, elastic, shiny
- Identify wood, plastic, glass, metal, water, rock
- Know the primary colours - red, blue and yellow
- Know how to create different shade of yellow

**Key Vocabulary**

**Glossary**

- Celsius** A unit to measure temperature.
- diet** The food and drink that a person or animal eats regularly.
- dissolve** When a solid mixes with a liquid and can't be seen anymore.
- float** To stay on the surface of a liquid.
- freeze** To change a liquid into a solid by cooling.
- liquid** Something that can be poured easily, takes the shape of its container and can't be held.
- melt** To change a solid into a liquid by heating.
- mixture** A substance made by mixing solids and liquids.
- solid** Something that stays in one place and can be held.
- substance** A solid, liquid, powder or gas of a particular kind.

**Knowledge**

**Muck, Mess and Mixtures**

**Solids and liquids**

Some materials can be solids or liquids.  
A solid stays in one place and can be held. Some solids can be squashed, bent, twisted and stretched. Wood, metal, plastic, play dough and elastic are solids.  
A liquid moves around easily and is difficult to hold in your hands. Liquids take the shape of the container in which they are held. Water, juice, milk, washing up liquid and bubble bath are liquids.

**Melting**

Some materials melt when they are heated. Melting changes a solid into a liquid. Chocolate melts when it is heated.



**Freezing**

Some materials freeze when they are cooled. Freezing changes a liquid into a solid. Water freezes at zero degrees Celsius (0°C).



**Mixtures**

Mixtures are made by mixing different solids and liquids. For example, water, salt, flour and yeast are mixed to make bread dough.

Solids can be mixed with solids. For example, muesli is a mixture of oats, seeds and dried fruit.



Liquids can be mixed with liquids. For example, cordial can be mixed with water to make squash.



Sometimes, liquids don't mix with other liquids. For example, oil does not mix with water. The oil floats on top of the water.



Solids can be mixed with liquids. For example, clay can be mixed with water to make a runny clay called slip.



Some solids dissolve when mixed with liquids. When a solid dissolves, it looks like it has disappeared but it is still there. For example, sugar dissolves in water.



**Mix It**

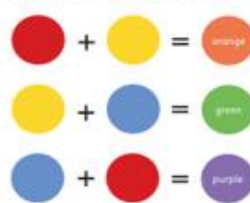
**Primary colours**

The primary colours cannot be made by mixing other colours. The primary colours are red, yellow and blue. All other colours can be made by mixing the primary colours.



**Secondary colours**

The secondary colours are orange, green and purple. They are made by mixing equal amounts of primary colours. Red and yellow make orange. Yellow and blue make green. Blue and red make purple.



**Colour wheel**

The colour wheel is a diagram that shows how colours are organised. The secondary colours sit between the primary colours from which they are made.



**Hues**

A hue is a different version of a colour. By mixing different amounts of primary colours we can make a range of hues. Some examples include blue-green, yellow-green and red-orange.



**Feelings about colour**

Some colours can make us feel warm and happy. Red, yellow and orange are warm, happy colours. Some colours can make us feel cool and calm. Blue and green are cool, calm colours.



**Glossary**

**colour wheel** A tool used in art and design to show colours and their relationship to each other.

**hue** A version of a colour.

**primary colour** A colour that cannot be made by mixing other colours.

**secondary colour** A colour that is made by mixing equal amounts of two primary colours.

**What I will know by the end of this unit**

**Science**

- Work scientifically to test, compare, observe, identify and classify the uses of different materials
- Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching, heating and cooling

**Art**

- Know how to mix all secondary and tertiary colours
- Know how to create tones with paint by adding black (or darker colours)
- Know how to create tints with paint by adding white.
- Know how colours can make us feel and can be linked to our emotions.

**Dangerous substances**

Some substances, like bleach and kitchen cleaner, can be dangerous to touch or swallow. You should never touch these substances.

Medicines can also be harmful if they are not used properly. Medicines should always be kept in a safe place and children should only take medicines given to them by an adult.

**Safety symbols**

Symbols are used on packaging to warn people that the solids or liquids inside are dangerous.



This symbol is a warning that the substance is flammable. This means that it could easily catch on fire.



This symbol is a warning that the substance is corrosive. This means that if touched, it could burn and damage skin.