

Subject: Year 1
Concept: Materials & States of Matter

Previously, I have learnt... → In Year 1, I am learning... → In the future, I will learn... → My future...

That objects are made from different things

To distinguish between an object and the material from which it is made

How to identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses

- Scientist
- Doctor
- Dentist
- Archaeologist
- Engineer
- Chemist
- Teacher
- Biochemist
- Astronaut
- Anthropologist
- Environmentalist
- Naturalist
- Wildlife documentary presenter

How to describe materials using simple vocabulary.

To identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock

How to investigate how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

How to use different materials for certain jobs.

To describe the simple physical properties of a variety of everyday materials

To compare and group together a variety of everyday materials on the basis of their simple physical properties.

materials
object
hard
strong
soft
smooth
rough



properties
uses
objects
waterproof
absorbent
smooth
rough
stretchy
stiff
hard
soft



shape
suitability
solid
changes
squashing
bending
twisting
similarities
differences

Subject: Year 2
Concepts: Materials & States of Matter

Previously, I have learnt... → In Year 2, I am learning... → In the future, I will learn... → My future...

To distinguish between an object and the material from which it is made

To identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock

To describe the simple physical properties of a variety of everyday materials

To compare and group together a variety of everyday materials on the basis of their simple physical properties.

How to identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses

How to investigate how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

The characteristics of different states of matter including solids, liquids and gases.

How water changes state and how to use the names of the different states to identify these.

That some materials change states (at different temperatures e.g. from a solid to a liquid)

How to describe the water cycle and how evaporation can be useful.

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properties
uses
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hard
soft



shape
suitability
solid
changes
squashing
bending
twisting
similarities
differences



solid
liquid
gas
state
melting
boiling
evaporation
condensation
degrees Celsius (oC)

Subject: Year 4
Concepts: Materials & States of Matter

Previously, I have learnt...

In Year 4, I am learning...

In the future, I will learn...

My future...

How to identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses

The characteristics of different states of matter including solids, liquids and gases.

To compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets

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- Chemist
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- Anthropologist
- Environmentalist
- Naturalist
- Wildlife documentary presenter

How to investigate how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

How water changes state and how to use the names of the different states to identify these.

To use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating

That some materials change states (at different temperatures e.g. from a solid to a liquid)

How to explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible.

How to describe the water cycle and how evaporation can be useful.

To demonstrate that dissolving, mixing and changes of state are reversible changes

shape
suitability
solid
changes
squashing
bending
twisting
similarities
differences



solid
liquid
gas
state
melting
boiling
evaporation
condensation
degrees Celsius (°C)



soluble
insoluble
solution
conduct
insulate
distillation
chromatography
particles

Subject: Year 5
Concepts: Materials & States of Matter

Previously, I have learnt... → In Year 5, I am learning... → In the future, I will learn... → My future...

The characteristics of different states of matter including solids, liquids and gases.

How water changes state and how to use the names of the different states to identify these.

That some materials change states (at different temperatures e.g. from a solid to a liquid)

How to describe the water cycle and how evaporation can be useful.

To compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets

To use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating

How to explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible.

To demonstrate that dissolving, mixing and changes of state are reversible changes

The properties of the different states of matter (solid, liquid and gas) in terms of the particle model, including gas pressure.

The changes of state in terms of the particle model.

Simple techniques for separating mixtures: filtration, evaporation, distillation and chromatography

The order of metals and carbon in the reactivity series.

The use of carbon in obtaining metals from metal oxides.

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solid
liquid
gas
state
melting
boiling
evaporation
condensation
degrees Celsius (°C)



soluble
insoluble
solution
conduct
insulate
distillation
chromatography
particles



alloys
atoms
element
equation
malleable
neutralisation
ores
sonorous
indicator
unreactive