

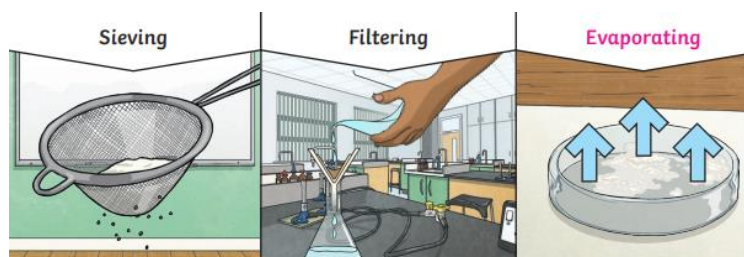
Properties of materials – knowledge organiser

Key knowledge	
What is a material?	<ul style="list-style-type: none"> A material is any substance that has a name. For example: chalk, paper, wood, iron, air, water, clay, plastic, rubber, stone, leather, wax Materials are either man-made or natural Materials are either solid, liquid or gas
Object or material?	<ul style="list-style-type: none"> All objects are made from different materials. We need to choose the right material for the right job based on its properties
Properties	<ul style="list-style-type: none"> The property of a material is something about it that we can measure, see or feel and helps us decide whether or not it is the best material. We can group materials by their properties. For example: is it hard or soft?
List of properties	A list of useful properties are: <ul style="list-style-type: none"> Hard/soft Soluble/insoluble Transparent/translucent/opaque Conductor/insulator Magnetic/non-magnetic
How can I separate materials?	There are several ways to separate materials including: <ul style="list-style-type: none"> Sieving - sorting out the big bits from the small bits, e.g. stones from sand Filtering - separating solid bits from a liquid, e.g. sand from sand and water. Evaporating – Separating a solution. e.g. We can separate the salt from water by boiling it. The salt will be left behind.
Scientists we need to know about	
5 facts about Ruth Benerito	<ul style="list-style-type: none"> She is best known for developing wrinkle-free cotton fabric Ruth started by teaching She also had to teach people how to drive Ruth died in 2013 Her work on cotton saved the industry from man-made fibres

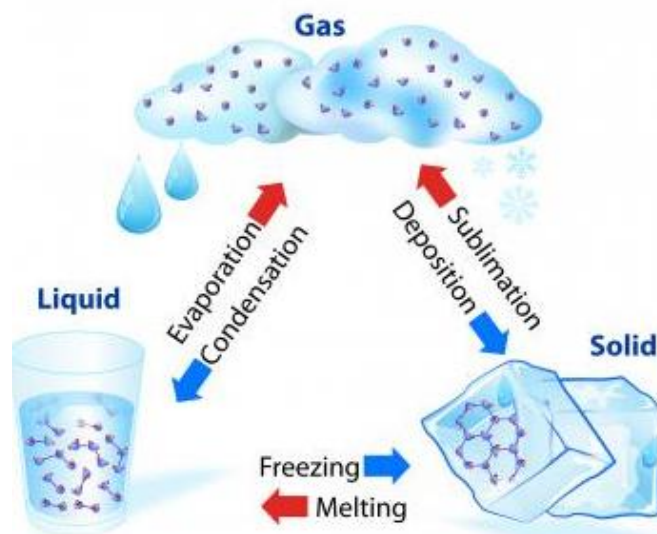
Properties of materials



Separating materials



States of matter



Key Vocabulary

Brittle – Hard but breaks easily

Condensing - When a gas is cooled it turns back into a liquid.

Dissolve – When a solid becomes incorporated in a liquid to form a solution.

Evaporating – When a liquid turns into a gas

Freezing – When a liquid turns into a solid

Irreversible – A change that doesn't go back

Soluble – A solid or gas that will dissolve in a liquid

Solute – A solid that dissolves in a liquid

Solution – A dissolved solid in a liquid

Material – What an object is made from

Melting – When a solid turns into a liquid

Mixture – 2 or more materials that can be easily separated

Property – A way to describe a material

Reversible – A change that will go back