

What I should already know:

- About everyday materials and their properties and uses, including magnetic materials.
- About temperature and heating and cooling.
- The states of matter and change of state .
- About evaporation and condensation in the water cycle and the factors that affect evaporation.

Working Scientifically Skills:

- To plan** practical inquiries, **comparative** and fair tests, including recognising and controlling **variables** where necessary.
- To record** findings such as using simple scientific language, labelled diagrams and bar charts.
- To make** systematic and careful **observations** and, where appropriate, take accurate measurements.



Key Vocabulary:

1	dissolve	when a solid mixes with liquid to make a solution
2	elasticity	returns to original shape when force removed
3	evaporate	heat liquid until it turns into gas
4	flexible	easily bends; opposite of rigid and stiff
5	soluble/ insoluble	when something can or cannot dissolve
6	mixture	two or more substances that can be separated
7	solute	the material that dissolves eg salt
8	solvent	usually (liquid) that does the dissolving
9	solution	mixture of solid and liquid (you might not be able to see the solid)

What I will learn:

- That some materials will dissolve in liquid to form a solution.
- To use knowledge of solids, liquids and gases to decide how mixtures might be separated
- To use evidence from comparative and fair tests, for the particular uses of everyday materials.
- That dissolving, mixing and changes of state are reversible changes.
- To compare and group together materials on the basis of their solubility, transparency and conductivity.

Properties of Materials

 flexible	 rigid	 soft
 hard	 shiny	 dull
 magnetic	 strong	 fragile

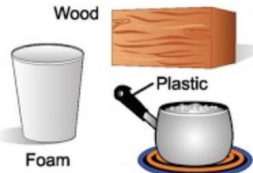
Scientists/Inventors


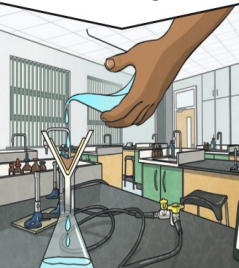
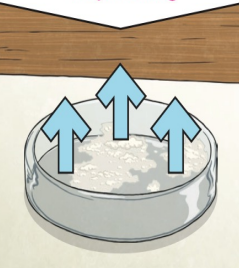
Ruth Benerito (1916-2013) an American chemist best known for developing wrinkle-free cotton fabric.

Thermal conductors



Thermal insulators



<p>Sieving</p> 	<p>Filtering</p> 	<p>Evaporating</p> 
<p>Smaller materials are able to fall through the holes in the sieve, separating them from larger particles.</p>	<p>The solid particles will get caught in the filter paper but the liquid will be able to get through.</p>	<p>The liquid changes into a gas, leaving the solid particles behind.</p>