
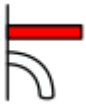

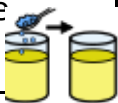





### Tier 3 Vocabulary

Tough	Resists cracking; opposite to brittle
Brittle	Hard but liable to break easily
Elastic 	Returns to original shape when force removed
Stiff 	Not easily bent or changed in shape
Flexible 	Easily bends
Solute	The stuff that dissolves
Solvent	Liquid (usually) that does the dissolving
Dissolve 	When a solid mixes with liquid to make a solution
Soluble	When something can dissolve
Insoluble	When something cannot dissolve
Electrical Conductor 	Allow electricity to pass through easily
Electrical Insulator	Does not allow electricity to pass through easily
Thermal conductor 	Material that can transfer (move) heat from one object to another
Thermal insulator 	Material that cannot transfer (move) heat from one object to another.

### Working and thinking scientifically

#### We are being scientists by:

- Comparing the properties of a range of materials
- Identifying some factors that affect dissolving
- Using scientific language and ideas to explain dissolving
- Using results to draw simple conclusions about dissolving
- Reporting on findings from enquires
- Using results to draw simple conclusions and suggest improvements
- Report and present findings from enquires



### Key Facts

There are standing groupings based on materials properties	E.g. rigid, wooden etc
Materials are chosen for use	based on their properties
Thermal and electrical conductors/insulators are	different
A solution is a mixture of	a liquid and a solid
A solute dissolves in a	solvent
Factors that affect dissolving are	movement, heat, size of particle, amount
Some mixtures can be separated by processes	Filtering, sieving, evaporating
Some mixtures cannot be separated if	An irreversible change has been made

### Pictures and Diagrams

**EXAMPLE**

**solute** **solvent**

A sugar cube disintegrates into microscopic particles

Tiny sugar cubes in still water

Sugar cubes being distributed throughout the solution

A "Sugary" solution