

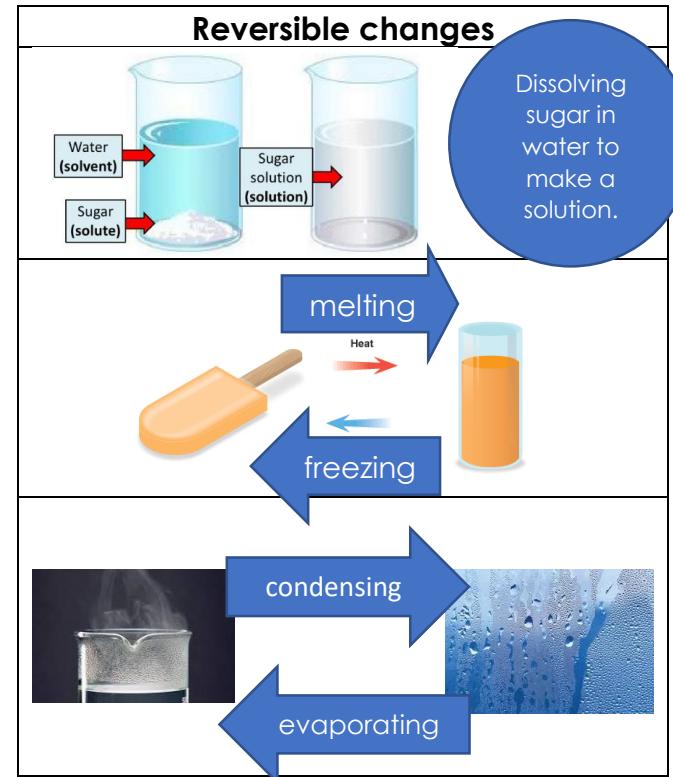


Properties and Changes of Materials – Year 5 Chemistry

| Key vocabulary | |
|------------------------------|--|
| thermal insulator | Does not allow heat to pass through it easily. |
| thermal conductor | Allows heat to pass through it easily. |
| dissolve | A solid that completely mixes in with a liquid and cannot be seen. |
| solution | A mixture of a liquid with a dissolved solid or gas. |
| soluble | Solids and gases that dissolve in liquids. |
| insoluble | Solids that do not dissolve in a liquid. |
| sieve | Separates solids of different sizes. |
| filter | Separates an insoluble solid that is mixed in a liquid. |
| evaporation | Change of state from a liquid to a gas which can be used to separate a soluble solid and a liquid. |
| reversible change | Changes that can be switched back and are not permanent. E.g. dissolving, melting, freezing |
| non-reversible change | Changes that can not be reversed back to their original state. E.g. burning, rusting |

| Materials can be grouped together based on their properties. For example: |
|---|
| <ul style="list-style-type: none">• hardness• solubility• transparency• thermal conductivity• electrical conductivity• response to magnets |

| Significant scientists | |
|--|--|
| Spencer Silver (born 1941) | Spencer Silver is an American scientist who together with Arthur Fry was the inventor of Post-it notes in 1974. At the time, he was working to develop new classes of adhesives. |



| Separating materials | |
|--|--|
| Sieving separates the stones and twigs from the soil. | |
| Filtering separates the sand from the mixture. | |
| Evaporating separates the dissolved salt from the water. | |

| Non-reversible changes - these result in the formation of new materials | |
|---|--|
| Burning | |
| Mixing vinegar and bicarbonate of soda | |



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Rusting

