'Key Sheet' – Properties & Changes to materials

Year Group: 5

<table>
<tr><th>Key Content</th><th colspan="2">Key Skills</th></tr>
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- Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, thermal conductivity and response to magnets
- Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution
- Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating
- Demonstrate that dissolving, mixing and changes of state are reversible changes
- Describe some irreversible changes.

- **Dissolving investigation**
- **Irreversible changes investigation eg rust.**
- **Materials to keep items in a lunchbox cool investigation**
- **Filtering**
- **Sieving**

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- Compare/group together materials on the basis of their properties.
- Describe how to recover a material that has been dissolved
- Describe how to recover an insoluble solid eg sand from a sand and water mixture.
- Decide how and when a mixtures might be separated:, sieving
- Describe some reversible and irreversible changes.

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<tr><th>Key questions</th><th colspan="2">Key Vocabulary</th></tr>
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- How can we describe the properties of different materials?
- How can we compare or group different materials?
- What is dissolving?
- How can we separate materials eg wet sand ?
- How can we get salt back from salt water?
- What are reversible changes?
- What are irreversible changes?
- **What does it mean when we control variables in an experiment ?**
- **What variables are you going to change, measure and control?**

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Thermal conductor
Thermal insulator
Dissolve , Solution, soluble , insoluble
Sieve
filter
Reversible
Irreversible
Properties
Materials, Compare
Liquid, Solid , Gas
Evaporate
Melting

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When classifying and comparing materials:

- Opaque
- Transparent
- Translucent
- Magnetic
- Flexible
- Soft
- Absorbent

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