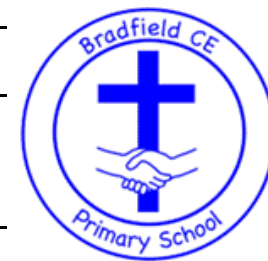


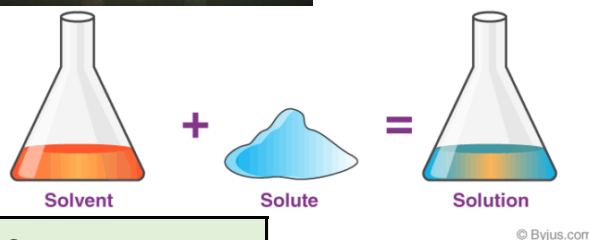
Bradfield CE Primary School - Knowledge Organiser - 2023/24



Science:
Materials and their properties

Year 5

Spring Term



Key Facts

- Materials can be grouped based on their properties, including their hardness, solubility, transparency, conductivity, and response to magnets.
- Some materials will dissolve in liquid to form a solution.
- When a solution is left to evaporate, the solid can be obtained back through crystallisation.
- Mixtures can be separated through filtering and sieving.
- Dissolving, mixing and changes of state are all reversible changes.
- Some changes can form new materials, this kind of change is not usually reversible.



Key Vocabulary

| | |
|---------------------|---|
| Material | the matter from which a thing is or can be made. |
| Dissolve | when a substance mixes in with a liquid to make a transparent liquid (it might look like it has disappeared). |
| Insoluble | a substance which cannot be dissolved. |
| Soluble | a substance which can be dissolved. |
| Insulator | a substance or device which does not readily conduct electricity . |
| Conductor | an object or type of material that allows the flow of electricity. |
| Chemical | a substance which has been artificially prepared. |
| Irreversible | cannot be undone or altered. |
| Reversible | capable of being reversed so that the previous state or situation is restored. |
| Solution | a solution is made when a substance (solute) dissolves into a liquid (solvent). |
| Separate | divide into its different parts or elements. |
| Mixture | a substance made by mixing other substances together. |
| Transparent | allows light to pass through so objects behind can be seen clearly. |
| Flexible | can bend easily without breaking |
| Permeable | a material that allows liquids or gases to pass through it |
| Magnetic | capable of being attracted to a magnet. |
| Substance | the material used to make something |

Reversible and Irreversible Changes



Threshold Concept

| | |
|------------------|---|
| Materials | the matter from which a thing is or can be made |
|------------------|---|