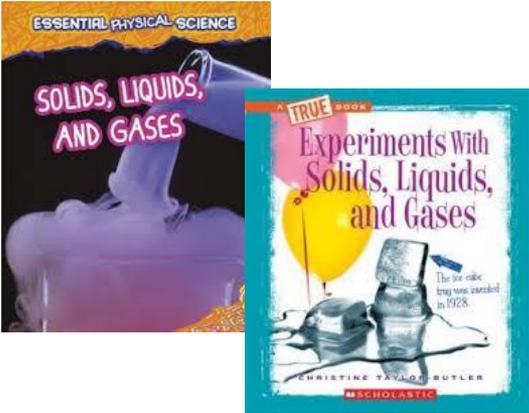


# Year 5: Can we separate a mixture of solids, liquids and gases?

| Subject Specific Vocabulary |   | Interesting Books   | Sticky Knowledge about solids, liquids and gases  |
|-----------------------------|---|---|---|
| <b>solubility</b>           | Is a chemical property referring to the ability for a given substance, the solute, to dissolve in a solvent.  |   | <ul style="list-style-type: none"> <li>The particles in a gas are well separated with no regular arrangement, in a liquid are close together with no regular arrangement and in a solid are tightly packed, usually in a regular pattern.</li> </ul>  |
| <b>melting</b>              | Melting is a physical process that results in the transition of a substance from a solid to a liquid.   |   |   |
| <b>filtering</b>            | To filter a substance means to pass it through a device which is designed to remove certain particles contained within.   | <p><b>Important facts to know by the end of the reversible and irreversible changes topic:</b></p> <ul style="list-style-type: none"> <li>Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.</li> <li>Know that some materials will dissolve into a liquid to form a solution, and describe how to recover a substance from a solution.</li> </ul> | <ul style="list-style-type: none"> <li>Solids have a definite shape that is not easy to change. Different solids have particular properties such as stretch, strength, or hardness that make them useful for different jobs. Most solids are made up of tiny crystals.</li> </ul>   |
| <b>thermal evaporation</b>  | Something that is thermal is hot, retains heat, or has a warming effect. Evaporation is the process of a substance in a liquid state changing to a gaseous state due to an increase in temperature and/or pressure. |   |   |
| <b>dissolve</b>             | To dissolve is defined as to become broken up or absorbed by something or to disappear into something else.   |   | <ul style="list-style-type: none"> <li>Liquids have an almost-fixed volume, but no set shape. Every small force makes a liquid change its shape by flowing. Because of that, gravity makes liquids always take the shape of the container. The molecules that make up the liquid can freely move among themselves.</li> </ul> |
| <b>separate</b>             | Separate, part, and divide to break into parts or to keep apart.  |   |   |
| <b>condensation</b>         | The conversion of a vapour or gas to a liquid. Water which collects as droplets on a cold surface when humid air is in contact with it.   |   | <ul style="list-style-type: none"> <li>Pure gases are made up of just one atom. Elemental gases are made up of two or more of the same atoms joined together. Compound gases contain a combination of different atoms. The air we breathe here on Earth is made up of different gases.</li> </ul>                             |
| <b>solution</b>             | A solution has two parts: a solute and a solvent. The solute is the substance that dissolves, and the solvent is the majority of the solution   |   |   |
| <b>molecular structure</b>  | Molecular structure describes the location of the atoms in solids, liquids and gases.   |   |   |