

## Year 5 Violet Spring 1: How Do Secret Agents Send Messages?

Sticky Knowledge	<div>MORSE CODE</div> <div>-- --- .: .... .   -: . --- -... .</div>	Topic Vocabulary	
The word 'material' describes what things are made from. A material's state can be solid, liquid or gas. Materials are made of lots of little particles and how they are arranged determine their state.		solubility	Is a chemical property referring to the ability for a given substance, the solute, to dissolve in a solvent.
Materials have properties that make them useful for certain jobs, such as being magnetic, flexible, waterproof, etc.		conductivity	Conductivity defines a material's ability to conduct electricity.
Irreversible changes, like burning, cannot be undone. Reversible changes, like melting and dissolving, can be changed back again.		transparency	In general, transparency is the quality of being easily seen through.
Mixtures can be separated out by methods like filtering and evaporating. A change is called irreversible if it cannot be changed back again.		thermal	Something that is thermal is hot, retains heat, or has a warming effect.
Examples of reversible changes. Melting: Melting is when solid converts into a liquid after heating. Example of melting is turning of ice into water. Freezing: Freezing is when a liquid converts into a solid.	evaporation		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.
A cooked egg cannot be changed back to a raw egg again. Mixing substances can cause an irreversible change. For example, when vinegar and bicarbonate of soda are mixed, the mixture changes and lots of bubbles of carbon dioxide are made. Burning is an example of an irreversible change.	dissolve		To dissolve is defined as to become broken up or absorbed by something or to disappear into something else.
Alan Turing was a British mathematician. He made major contributions to the fields of mathematics, computer science, and artificial intelligence. He worked for the British government during World War II, when he succeeded in breaking the secret code Germany used to communicate.	bicarbonate of soda		a white water-soluble powder, used chiefly as an antacid, a fire extinguisher, and a leavening agent in baking.
	thermal		Something that is thermal is hot, retains heat, or has a warming effect
	filtering		To filter a substance means to pass it through a device which is designed to remove certain particles contained in it.
	melting		Melting, is a physical process that results in the phase transition of a substance from a solid to a liquid.