

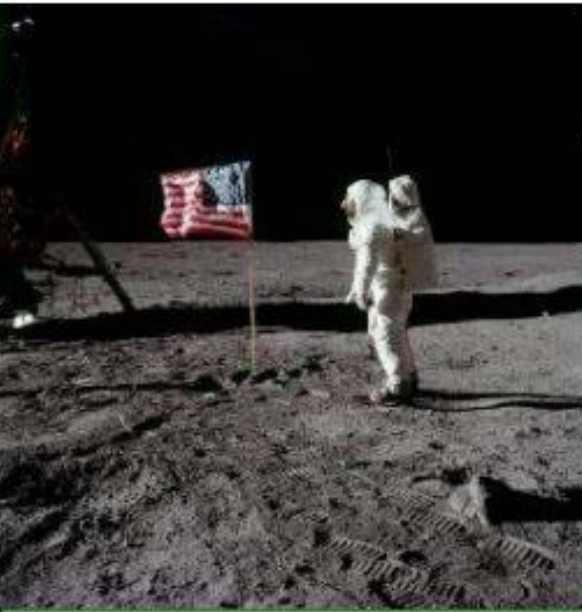


# Year 5: Reversible and Irreversible Changes Knowledge Mat

Subject Specific Vocabulary		Interesting Books		Sticky Knowledge about Reversible and Irreversible changes	
<b>solubility</b>	Is a chemical property referring to the ability for a given substance, the solute, to dissolve in a solvent.	 	<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>• Know what a reversible change means.</li> <li>• Know what an irreversible change means.</li> <li>• Give examples of reversible and irreversible changes.</li> <li>• Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution.</li> <li>• Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating</li> </ul>	<p><b>Sticky Knowledge about Reversible and Irreversible changes</b></p> <p><input type="checkbox"/> Irreversible changes, like burning, cannot be undone. Reversible changes, like melting and dissolving, can be changed back again.</p>	
<b>conductivity</b>	Conductivity defines a material's ability to conduct electricity.			<p><input type="checkbox"/> Mixtures can be separated out by methods like filtering and evaporating. A change is called irreversible if it cannot be changed back again.</p>	
<b>transparency</b>	In general, transparency is the quality of being easily seen through.			<p><input type="checkbox"/> Examples of reversible changes: Melting is when a solid converts into a liquid after heating. An example of melting is turning ice into water. Freezing is when a liquid converts into a solid.</p>	
<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.			<p><input type="checkbox"/> 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.</p>	
<b>dissolve</b>	To dissolve is defined as to become broken up or absorbed by something or to disappear into something else.				
<b>bicarbonate of soda</b>	A white water-soluble powder, used chiefly as an antacid, a fire extinguisher, and a leavening agent in baking.				
<b>thermal</b>	Something that is thermal is hot, retains heat, or has a warming effect.				
<b>filtering</b>	To filter a substance means to pass it through a device which is designed to remove certain particles contained within.				
<b>melting</b>	Melting is a physical process that results in the transition of a substance from a solid to a liquid.				
<b>separate</b>	Separate, part, and divide mean to break into parts or to keep apart.				

# Year 5: Earth and Space Knowledge Mat

Subject Specific Vocabulary			Sticky Knowledge about Earth and space	
<b>orbit</b>	An orbit is a repeating path that one celestial body takes around another.		<b>Important facts to know by the end of the Earth and space topic:</b> <ul style="list-style-type: none"> <li>• Know about and explain the movement of the Earth and other planets relative to the Sun.</li> <li>• Know about and explain the movement of the Moon relative to the Earth.</li> <li>• Know and demonstrate how night and day are created.</li> <li>• Describe the Sun, Earth and Moon (using the term spherical).</li> <li>• Know information about the planets.</li> <li>• Neil Armstrong was the first man to step on the moon.</li> </ul>	<input type="checkbox"/> One million Earths could fit inside the sun – and the sun is considered an average-sized star.
<b>solar system</b>	The solar system is made of the eight planets that orbit our sun; it is also made of asteroids, moons, comets and lots more.	<input type="checkbox"/> An asteroid about the size of a car enters Earth's atmosphere roughly once a year – but it burns up before it reaches us.		
<b>astronomical</b>	Astronomy is the study of outer space, focusing on celestial bodies such as stars, comets, planets and galaxies.	<input type="checkbox"/> The sunset on Mars appears blue.		
<b>planet</b>	There are 8 planets in our solar system, they are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.	<input type="checkbox"/> Earth is the third planet from the sun and the only world known to support an atmosphere with free oxygen, oceans of liquid water on the surface, and life.		
<b>rotation</b>	Rotation is when a shape is turned around a fixed point.	<input type="checkbox"/> There is no atmosphere in space, which means that sound has no medium or way to travel to be heard.		
<b>spherical</b>	Something spherical is like a sphere in being round, or more or less round, in three dimensions.	<input type="checkbox"/> Venus is the hottest planet in the solar system and has an average surface temperature of around 450° C.		
<b>crescent moon</b>	It is a slither of the moon that is lit up and can be seen. It is less than half the moon.	<input type="checkbox"/> The sheer size of space makes it impossible to accurately predict just how many stars exist.		
<b>gibbous moon</b>	The best way to describe a gibbous moon is that the moon is three-quarters lit up.			
<b>eclipse</b>	An eclipse occurs when an astronomical object is temporarily obscured. A lunar eclipse is when the Earth moves between the Sun and the Moon, therefore blocking the Sun's rays from striking the Moon.			
<b>lunar</b>	Is anything related to the moon.			