

Year 5: Science Properties and Changes Of Materials Knowledge Mat

Subject Specific Vocabulary		Mohs Scale	Important knowledge
solubility	Is a chemical property referring to the ability for a given substance, the solute, to dissolve in a solvent.	<p>Mohs Hardness Scale The Mohs scale rates the hardness of minerals by their ability to scratch softer minerals.</p> <p>Mineral Hardness</p> <p>10 Diamond 9 Corundum 8 Topaz 7 Quartz 6 Orthoclase 5 Apatite 4 Fluorite 3 Calcite 2 Gypsum 1 Talc</p> <p>Increasing hardness</p> <p>8.5 drill bit 6.5 steel nail 5.5 knife or glass 3.5 copper coin 2.5 fingernail</p> <p>sciencenotes.org</p>	<ul style="list-style-type: none"> <input type="checkbox"/> I know what reversible and irreversible changes are and give examples of them. <input type="checkbox"/> I can produce my own hardness scale and link the hardness of materials to their use. <input type="checkbox"/> I can classify materials as transparent, translucent or opaque. <input type="checkbox"/> I know the terms conductor and insulator and state which types of material make the best ones. <input type="checkbox"/> I know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution. <input type="checkbox"/> I know some of the signs that tell a chemical reaction has occurred. <input type="checkbox"/> I can classify substances as acids, alkalis or neutral' <input type="checkbox"/> I can separate mixtures through filtering, sieving and evaporating.
conductivity	Conductivity defines a material's ability to conduct electricity.		
transparency	In general, transparency is the quality of being easily seen through..	<h2>Separation Processes</h2> <p>Sieving</p> <p>Sieve</p> <p>Sand & Gravel</p> <p>Sand</p> <p>Filtering</p> <p>Beaker Containing Mixture</p> <p>Residue</p> <p>Filter Paper</p> <p>Funnel</p> <p>Conical Flask</p> <p>Filtrate</p>	<ul style="list-style-type: none"> <input type="checkbox"/> I know how to record data using a table to present my results. <input type="checkbox"/> I know how to take measurements, using a range of scientific equipment. <input type="checkbox"/> I know how to begin to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary <input type="checkbox"/> I know how to make my own decisions about what equipment is most suitable. <input type="checkbox"/> I know how to use scientific diagrams and labels to record data and support my conclusion. <input type="checkbox"/> I know how to carry out a scientific enquiry, make accurate observations and report my findings.
hardness	The quality or condition of being hard.		
dissolve	To dissolve is defined as to become broken up or absorbed by something or to disappear into something else.		
acid	A substance with particular chemical properties including turning litmus red, neutralizing alkalis, and dissolving some metals		
alkali	A compound with particular chemical properties including turning litmus blue and neutralizing or effervescing with acids		
separate	To divide a mixture into two or more distinct substances.		
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.		