

## Solutions (Chemistry)

Year 5, Spring Term

**THIS NEEDS WORK – not to clash with work in Year 4 or Year 6!**

<b><i>You will be taught</i></b>	<b><i>You should know</i></b>
that solids which do not dissolve in water can be separated by filtering which is similar to sieving to describe a scientific process in a series of sequenced steps	separate a solid from a liquid by sieving and/or filtering the mixture sequence the steps required to separate a mixture eg by producing a flow chart
to make predictions about which types of water contain dissolved materials and test these predictions that when solids dissolve a clear solution is formed (which may be coloured), the solid cannot be separated by filtering that when the liquid evaporates from a solution the solid is left behind	relate observations to their predictions saying whether the prediction was supported or not explain that when a solid dissolves it can't be seen but it remains in the solution eg we couldn't see the salt any more but it was still there, the salt went into the solution explain that when the water evaporates from a solution solids are left behind because they were dissolved in the solution but don't evaporate explain that nothing is left behind when distilled water evaporates because there was nothing dissolved in it
to make predictions about what happens when water from a solution evaporates and to test these predictions	explain that the steam from sea water will not be salty because only the water evaporates eg when the water boils/evaporates the salt will be left behind predict that steam condensed from blue ink will not be blue and give a reason for their prediction eg only the water evaporates
to turn ideas about helping solids dissolve more quickly into a form that can be investigated and decide how to carry out a fair test to decide what apparatus to use and to make careful observations and measurements to make comparisons and draw conclusions	identify a range of factors which might affect how fast solids dissolve use a fair test to investigate a question and explain how it was fair describe one or two factors that help a solid dissolve more quickly
to use a line graph to present results	present results, perhaps with some help, in a bar chart or line graph, explain what the results show eg the salt dissolved faster when the water was hotter or the caster sugar dissolved faster than the granulated sugar; the smaller the grain size the faster it dissolved
that several repeated measurements provide data that can be used with more confidence to draw a line graph from results to evaluate a graph in terms of how well it represents experimental results	explain why several measurements may provide data in which confidence can be placed decide on a line for their graph that fits the data explain why one line fits the data better than others