**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class: \_\_\_\_\_\_\_\_\_**

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| **Week 2:** | **Mixtures**  |
| **Question:** | Explain, in terms of particles, what is meant by a mixture and a pure substance. |
| Key words: | crystallisation, solutions, bonded, filtration, alloys, insoluble, element, formulations, chromatography, different, one, two, evaporate, compound, fuels, filter, fats, dissolved, paints, larger, solvent, solution, solute, separate, boiling points |
| First draft: |
| A pure substance is one which contains only \_\_\_\_ single \_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_. For example, distilled water is pure because it only contains water molecules. Some substances are mixtures because they contain \_\_\_\_\_\_ or more \_\_\_\_\_\_\_\_\_ substances that are not chemically \_\_\_\_\_\_\_\_\_\_ together. For example, sea water contains salt and water so is a mixture. \_\_\_\_\_\_\_\_\_\_ are mixtures that have been designed as a useful product, For example, \_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_ are all formulations.\_\_\_\_\_\_\_\_\_\_ are examples of a mixtures. A solution is a mixture of one substance \_\_\_\_\_\_\_\_\_\_\_\_ into another so it is evenly spread throughout. This is usually made up of a solid called a \_\_\_\_\_\_\_, for example salt, and a liquid called a \_\_\_\_\_\_\_\_\_\_\_\_, for example water. When the solute (salt) dissolves into the solvent (water) a \_\_\_\_\_\_\_\_\_\_\_ (salty water) is formed. Some substances are not able to dissolve into a solvent. We call these substances \_\_\_\_\_\_\_\_\_\_\_. For example, sand, \_\_\_\_\_\_(lipids) and wood do not dissolve in water so are insoluble.Because mixtures are not chemically bonded together, we can easily \_\_\_\_\_\_\_\_\_\_\_\_\_ them using separation techniques. For example, if we have a mixture of an insoluble solid and a liquid we can use \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ because the solid particles are \_\_\_\_\_\_\_\_\_ than the liquid particles so will not pass through the \_\_\_\_\_\_\_\_\_\_ paper.For a soluble solid and a solvent, we can use \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ where the solution is heated and the substances \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and are separated based on their different \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.For two liquids mixed together, we can use \_\_\_\_\_\_\_\_\_\_\_\_. This works because when the mixture is heated the two liquids will \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and are separated based on their \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.For different coloured inks or dyes we can use \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. |