

C10 – Chemical changes	
1. What is a PURE substance in CHEMISTRY?	A single element or compound that has not been mixed with another substance.
2. What can we say about the melting point or boiling point of a pure element/compound?	Pure elements/compounds melt and boil at very specific temperatures.
3. How could we test a compound to see if it was pure?	We could measure the temperature at which it melts/boils. If this is different to the known melting/boiling point then the compound is not pure.
4. What is a PURE substance in EVERYDAY life?	It is a substance that has had nothing added to it. It is unadulterated and in its natural state.
5. Give 7 general examples of formulations.	Fuels Cleaning agents Paints Medicines Alloys Fertilisers foods
6. What is a formulation?	It is a mixture that has been designed as a useful product.
7. How is a formulation made?	It is made by mixing the components in carefully measured quantities to ensure that the product has the required properties.
8. Give 2 ways in which chromatography can be useful.	1. To separate mixtures 2. To provide information to help identify substances.
9. Name the two phases involved in chromatography.	Stationary and mobile
10. How is the R_f value calculated?	$\frac{\text{Distance moved by substance}}{\text{Distance moved by solvent}}$
11. How is chromatography used to identify a compound?	The R_f value is calculated and compared with the R_f value of known compounds in the solvent used.
12. What will happen to the compounds in a mixture during chromatography?	They will separate out into different spots on the chromatogram.
13. What will happen to a pure compound during chromatography?	It will produce a single spot on the chromatogram in any solvent.
14. What is the test for hydrogen gas?	Place a burning spill in the gas. Listen for a 'pop' sound.
15. What is the test for oxygen gas?	It relights a glowing spill/splint.
16. What is the test for carbon dioxide gas?	When bubbled through limewater (aqueous calcium hydroxide), the limewater turns milky (cloudy)
17. What is the test for chlorine gas?	It bleaches damp litmus paper