

QUESTION	ANSWER
----------	--------

## Quiz Cards: Chemical Analysis

### How to use the quiz cards to learn the key facts

- 1) Take 6 quiz cards at a time and read through them
- 2) Cover up the answer side of the page.

Question	Answer
----------	--------

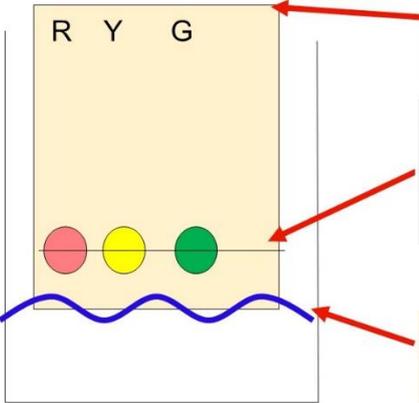
- 3) Take the first quiz card and ask yourself the question. Either write the answer down or say it out loud.
- 4) Check your answer using the answer side of the card.
- 5) Do this question again until you get it right.
- 6) Repeat the process for the second question.
- 7) Before going onto the third question repeat question one and two.
- 8) When you have gone through all of the questions try and do them in a random order to really test your knowledge.

### **ONCE YOU HAVE LEARNT THEM ALL ....**

- 9) Complete some exam questions to apply your knowledge.
- 10) Check your answer with the mark scheme and correct any errors in green pen.
- 11) Repeat steps 9-10 until you get the answers correct all of the time.

QUESTION	ANSWER
<p><b>What is a pure substance?</b></p>	<p>In chemistry, a pure substance is a single element or compound, not mixed with any other substance.</p> <p>In everyday language, a pure substance can mean a substance that has had nothing added to it, so it is unadulterated and in its natural state, eg pure milk.</p> <p>Pure substances melt and boil at specific temperatures.</p>
<p><b>What is a mixture?</b></p>	<p>Mixtures are substances containing two or more elements that are NOT chemically bonded.</p>
<p><b>What is a formulation?</b></p>	<p>A formulation is a mixture that has been designed as a useful product.</p> <p>Many products are complex mixtures in which each chemical has a particular purpose.</p>
<p><b>What impact do impurities have on the melting and boiling point of a substance?</b></p>	<p>Impurities in mixtures mean that they do not melt and boil at specific temperatures.</p>

QUESTION	ANSWER
<b>How</b> do we make formulations?	Mixing the components in carefully measured quantities to ensure that the product has the required properties.
<b>What</b> are examples of formulations?	Fuels, cleaning agents, paints, medicines, alloys, fertilisers and foods.
<b>What</b> is a solvent?	A liquid that can dissolve a substance (a solute).
<b>What</b> is solute?	A substance that can be dissolved in a solvent.
<b>What</b> is soluble?	When a substance can be dissolved.

QUESTION	ANSWER
<p><b>Describe</b> what to do in paper chromatography.</p>	 <p>1) At the top of the paper – write (in pencil) the colour of your ink.</p> <p>2) Put one dot of ink on a piece of chromatography paper along a pencil line. (make sure they are in the correct order).</p> <p>3) Suspend the paper in the beaker so that the bottom of the paper is just touching the water.</p>
<p><b>Why</b> do you use a pencil line in paper chromatography?</p>	<p>Pencil doesn't dissolve in water so won't affect the results.</p>
<p><b>Why</b> do you use a lid on the beaker paper chromatography?</p>	<p>To stop the solvent evaporating.</p>
<p><b>Why</b> does paper chromatography separate mixtures in ink or food?</p>	<p>As the water (solvent) goes up the paper it dissolves the solute (ink or additives) and carries it up the paper.</p> <p>Different colours or food additives are carried different amounts.</p>
<p><b>Why</b> do different colours or food additives get carried different distances?</p>	<p>They have different solubility's.</p> <p>Those colours / additives that are very soluble will travel further.</p>

QUESTION	ANSWER
<b>What</b> is a food additive?	A substance added to food to improve its appearance, taste and shelf life.
<b>What</b> is the stationary phase?	The phase that doesn't move.
<b>What</b> is the mobile phase?	The phase that does move.
<b>What</b> is Rf values	<p>The ratio of the distance moved by a compound (centre of spot from origin) to the distance moved by the solvent can be expressed as its Rf value:</p> $R_f = \frac{\text{distance moved by substance}}{\text{distance moved by solvent}}$
<b>Why</b> does Chromatography work?	Different compounds have different Rf values in different solvents.
<b>How</b> can we use chromatography to distinguish between mixtures and pure substances?	The compounds in a mixture may separate into different spots depending on the solvent but a pure compound will produce a single spot in all solvents

QUESTION	ANSWER
<b>What</b> is the test for hydrogen?	Lit splint. Squeaky pop
<b>What</b> is the test for oxygen?	Glowing splint relights.
<b>What</b> is the test for carbon dioxide?	Lime water goes cloudy. Lit splint goes out
<b>What</b> is the test for chlorine?	Damp litmus paper is bleached and turns white.