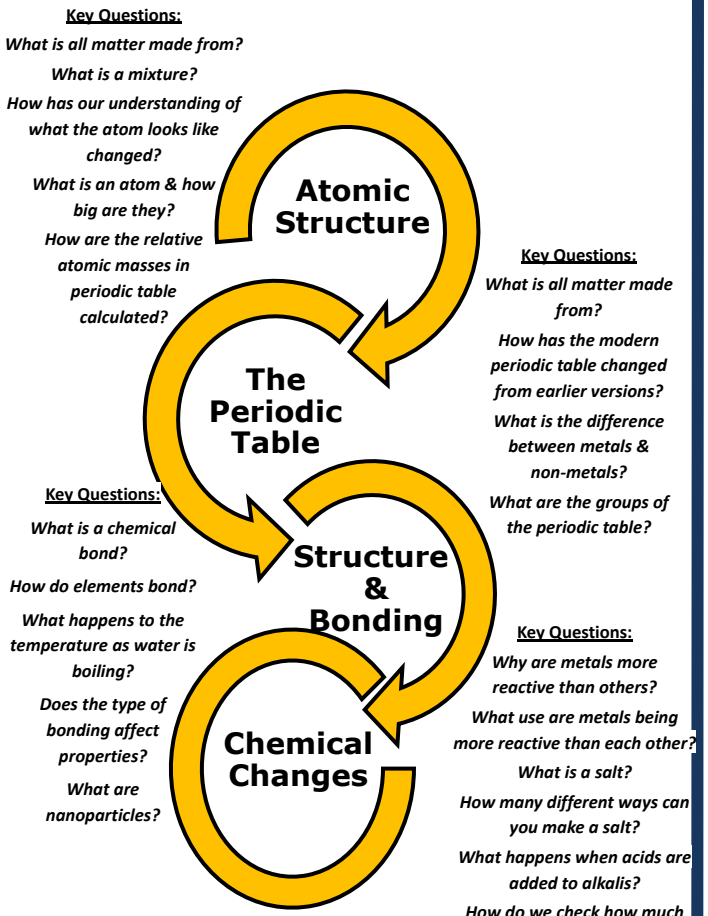
Kings Priory School

Key Stage 4 Chemistry - Triple Science Curriculum

YEAR 9



Key Questions:

What is all matter made from?

What is a mixture?

How has our understanding of what the atom looks like changed?

What is an atom & how big are they?

How are the relative atomic masses in periodic table calculated?

Key Questions:

What is all matter made from?

How has the modern periodic table changed from earlier versions?

What is the difference between metals & non-metals?

What are the groups of the periodic table?

Key Questions:

What is a chemical bond?

How do elements bond?

What happens to the temperature as water is boiling?

Does the type of bonding affect properties?

What are nanoparticles?

Key Questions:

Why are metals more reactive than others?

What use are metals being more reactive than each other?

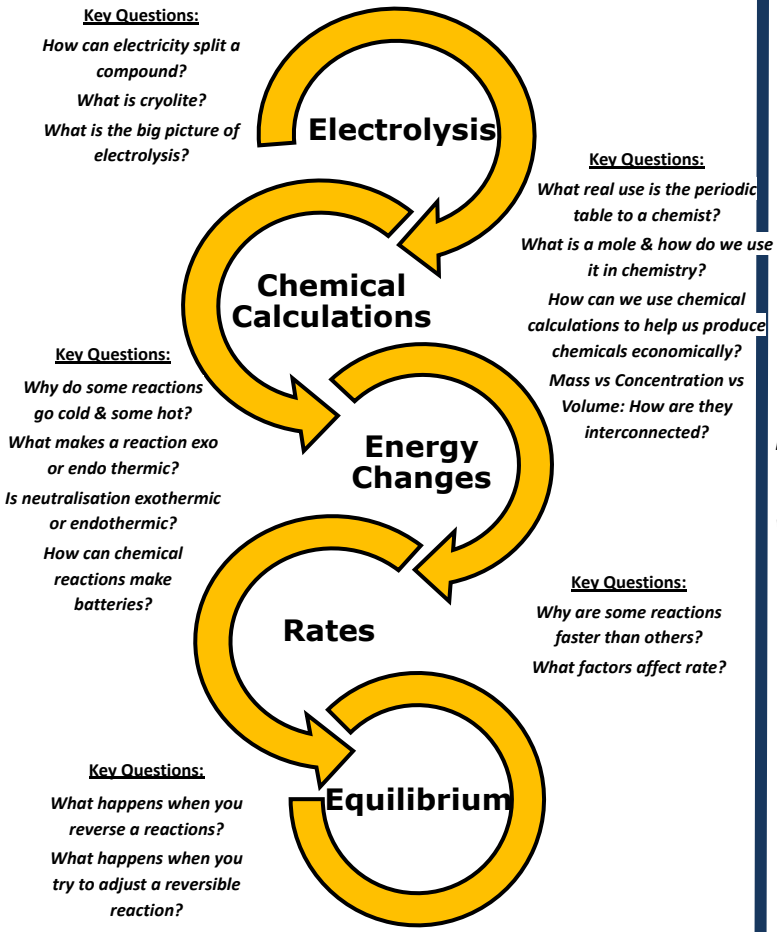
What is a salt?

How many different ways can you make a salt?

What happens when acids are added to alkalis?

How do we check how much aspirin is in a tablet?

YEAR 10



Key Questions:

How can electricity split a compound?

What is cryolite?

What is the big picture of electrolysis?

Key Questions:

What real use is the periodic table to a chemist?

What is a mole & how do we use it in chemistry?

How can we use chemical calculations to help us produce chemicals economically?

Mass vs Concentration vs Volume: How are they interconnected?

Key Questions:

Why do some reactions go cold & some hot?

What makes a reaction exo or endo thermic?

Is neutralisation exothermic or endothermic?

How can chemical reactions make batteries?

Key Questions:

Why are some reactions faster than others?

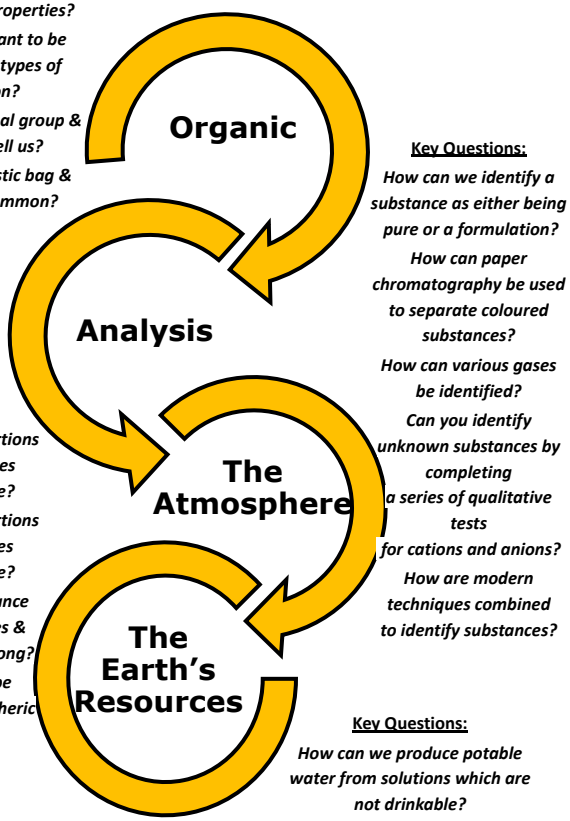
What factors affect rate?

Key Questions:

What happens when you reverse a reactions?

What happens when you try to adjust a reversible reaction?

YEAR 11



Key Questions:

How can we identify an alkane from its properties?

Why is it important to be able to identify types of combustion?

What is a functional group & what can it tell us?

What does a plastic bag & DNA have in common?

Key Questions:

How can we identify a substance as either being pure or a formulation?

How can paper chromatography be used to separate coloured substances?

How can various gases be identified?

Can you identify unknown substances by completing a series of qualitative tests for cations and anions?

How are modern techniques combined to identify substances?

Key Questions:

How have the proportions of the Earth's gases changed over time?

Why have the proportions of the Earth's gases changed over time?

What is the importance of greenhouse gases & when do they do wrong?

Why should you be conscious of atmospheric pollutants?

Key Questions:

How can we produce potable water from solutions which are not drinkable?

What are LCAs & why are they important?

Why is Le Chatelier's principle important in industry?