REACTIONS

7 ACIDS, ALKALIS & REACTIONS OF METALS

Why are we learning this?

Building on from Key Stage 2, you will start to understand how everything around us is a chemical of some kind. You will link the products in your home to acids and alkalis and learn how to test for these substances and to use them safely. You will be able to explain what happens to chemicals when they react and predict the products made.

9 ENERGY CHANGES

Why are we learning this?

Endothermic and exothermic reactions have everyday useful links such as hand warmers, self heating cans and medical cool packs. Learning about how these reactions works will allow you to understand the energy transfer in all reactions. As a higher tier student you will also be able to quantitatively find how much energy is transferred in a reaction.

11 RATE OF REACTION

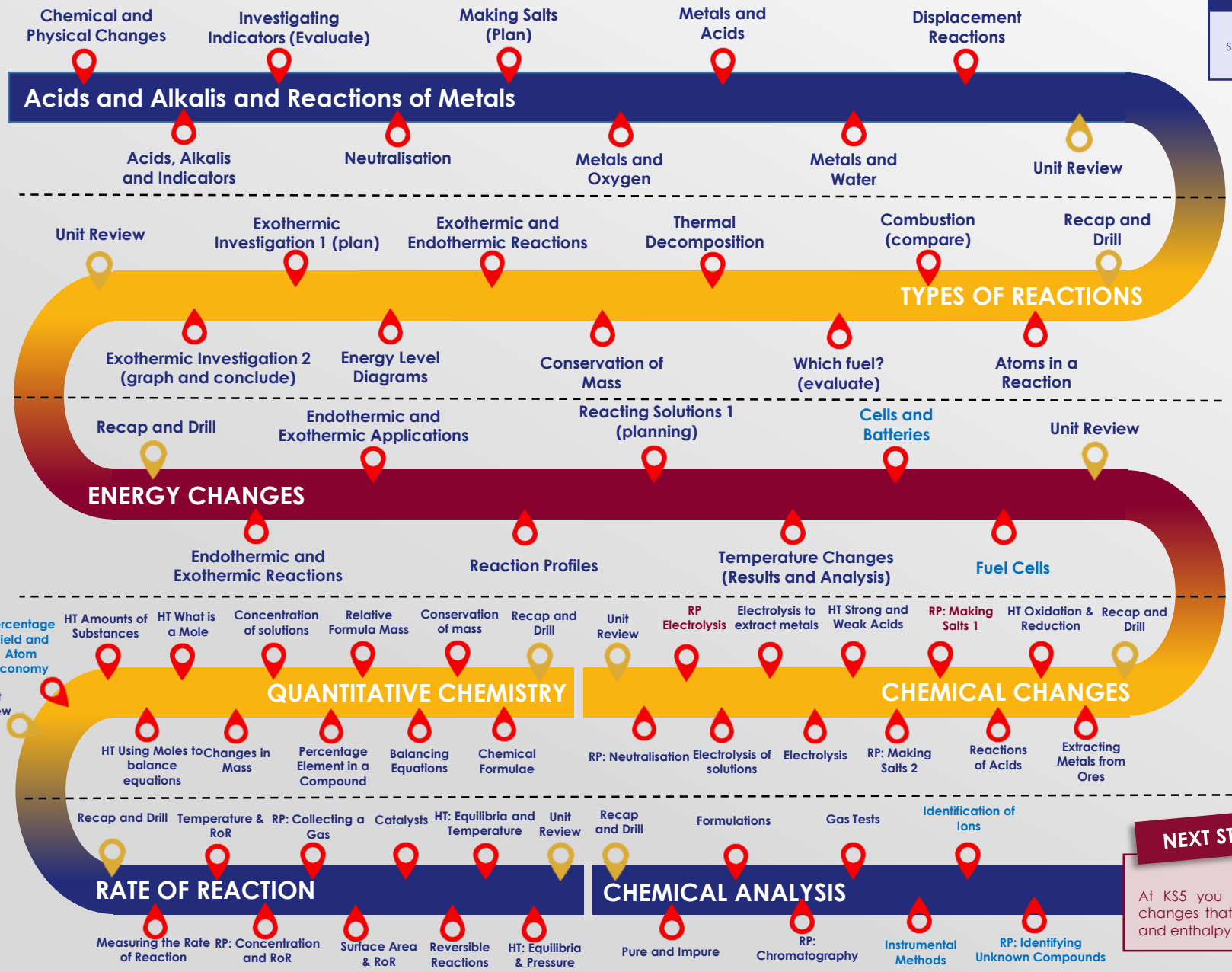
Why are we learning this?

Chemical reactions are everywhere, from cells to industry. In our bodies chemical reactions must happened at the correct speed or 'rate' to supply our cells with everything they need to live. In industry the products of chemical reactions make a lot of money and so it is important to able to speed up the rate at which they happen and make them happen as cheaply as possible.

11 CHEMICAL ANALYSIS

Why are we learning this?

Modern instrumental methods provide fast, sensitive and accurate means of analysing chemicals, and are particularly useful when the amount of chemical being analysed is small.



WHERE HAVE YOU BEEN?

At KS2 you will have learned how to group substances linked to their properties. You will also be able to name changes of state.

8 TYPES OF REACTIONS

Why are we learning this?

Learning about how different types of reactions happen are made are the fundamentals of Chemistry. You will learn different skills to carry out reactions and be able to explain what you can see during them. The reactions you will understand will help you to explain the world around you such as why do some fires produce more soot than others? How do medical cool packs work? Be curious!

10 CHEMICAL CHANGES

Why are we learning this?

The reactivity of metals links to everyday processes such as plumbing (which material to use), extraction of metals for use and jewellery making. Acids and alkalis are used everyday in household products. The reactions journey completes with electrolysis. This is an important industrial process. You will learn about how electrolysis is used to extract metals and to make important chemicals.

10 QUANTITATIVE CHEMISTRY

Why are we learning this?

You will be able to show how the reacting ratio of atoms can be used to determine the mass needed to react. This means that you will have learnt how to determine the formulae of compounds and write equations for reactions accurately. The unit completes by developing skills to precisely analyse liquids by titration.

NEXT STOP!

KS5 Chemistry:

At KS5 you will learn in further detail about the energy changes that happen in reactions and learn about entropy and enthalpy