Foxford Learning Plan

Year 8

Summer 1

Chemical and energy changes

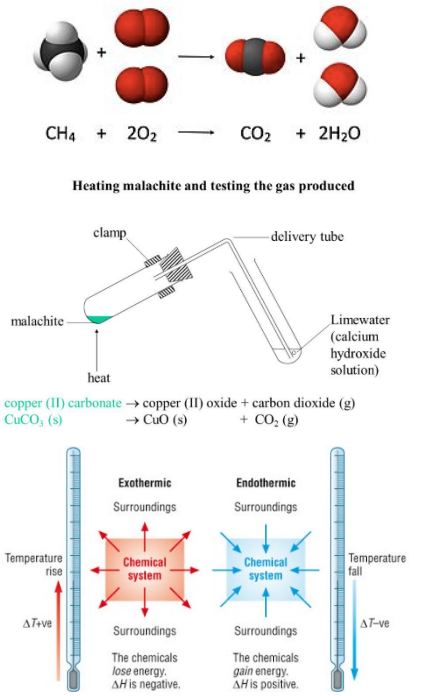
Key Vocabulary

Fuel	Stores energy in a chemical store which it can release as heat.
Physical change	A change in state or appearance that does not produce a new substance.
Chemical reaction	A process in which atoms rearrange to form new substances; atoms are conserved.
Reactants	Substances that react together, shown before the arrow in an equation.
Products	Substances formed in a chemical reaction, shown after the reaction arrow in an equation.
Conserved	Kept the same overall amount before and after a reaction, such as total mass.
Combustion	An exothermic reaction in which a substance burns in oxygen.
Thermal decomposition	An endothermic reaction in which a single reactant is broken down by heating.
Chemical bond	Force that holds atoms together in molecules.
Exothermic reaction	One in which energy is given out, usually as heat or light.
Endothermic reaction	One in which energy is taken in, usually as heat.

Over this course I will be able to

Key Skills

- Identify reactants and products and describe how atoms rearrange in chemical reactions.
- Use particle diagrams and word equations to represent chemical reactions.
- Interpret reactivity data to predict which metals will react or displace others.
- Use temperature changes to classify reactions as exothermic or endothermic.
- Balance simple chemical equations to demonstrate conservation of mass.
- Predict products of combustion and thermal decomposition reactions.
- Use observations to identify evidence that a chemical reaction has occurred.
- Compare experimental results and explain differences in reactivity and energy transfer.



I will understand

- How chemical reactions form new substances.
- How reactions can be represented using formulae and equations.
- How evidence can show that a chemical reaction has taken place.
- How the reactivity series helps us compare and predict reactions.
- How energy changes occur during chemical reactions.