

**9Ha – New materials/Making new materials**

Word	Pronunciation	Meaning
alloy		A mixture of metals, or of a metal and carbon.
cellulose	<i>sell-U-Iose</i>	Tough material that plant walls are made from.
elastic		Any substance that will return to its original shape and size after it has been stretched or squashed.
monomer		A small molecule that can be joined with lots of others like it to make a polymer.
natural		Something that occurs in nature. Natural materials include wool from sheep and wood from trees.
plastic		A material that keeps its new shape when it has been stretched or squashed.
polymer		A very long molecule, made from many small molecules (monomers) joined together.
property		A description of how a material behaves and what it is like. Hardness is a property of some solids.
synthetic		A material that has been manufactured from raw materials.
vulcanisation		When rubber is heated with sulphur to make it stiffer and less sticky.

**9Hb – Fantastic fibres**

Word	Pronunciation	Meaning
composite material		A material made by combining two or more other materials (the separate materials do not react together).
Kevlar		A synthetic (manufactured) fibre that is very strong.
raw materials		Materials, such as oil, from which other chemicals can be made.

**9Hc – Investigating reactions**

Word	Pronunciation	Meaning
law of conservation of mass		The idea that the total mass of all the reactants in a chemical reaction is the same as the total mass of all the products.
product		A new chemical formed in a chemical reaction.
reactants		Chemicals that form new substances during a chemical reaction.

**9Hd – Energetic reactions/Ban planes!**

Word	Pronunciation	Meaning
calx		A substance like ash from a fire, that is left after a substance burns. Some scientists used to think that all substances were made of a mixture of calx and phlogiston.
combustion		A burning reaction, when a fuel combines with oxygen and releases energy.
fuel		Anything that stores energy that can be converted into heat energy, e.g. fossil fuels and nuclear fuel
hydrocarbon		A chemical compound containing only hydrogen and carbon.
phlogiston	<i>flo-jist-on</i>	A substance that was thought to be part of most materials. Phlogiston was thought to be given off when things burned.