

# Year 8 Science

## Topics you will cover

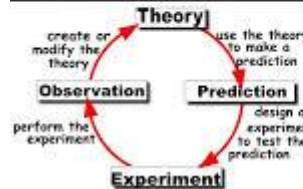
Diet, the digestive and respiration system, adaption and evolution, the Earth, Elements, atoms and compounds, metals, fuels and energy, electricity and using forces to make life easier.

## The big Science questions you should be able to answer

1. What lifestyle choices would an athlete need to consider to improve their performance.
2. How are different organisms perfectly adapted to their environment.
3. I can describe methods for separating different types of mixtures.
4. I can identify types of rocks, explain how they are made and describe ways in which they are broken down.
5. I can use word equations to represent a range of chemical reactions that metals and metal compounds take part in.
6. I can describe how power stations make electricity and compare them.
7. I can explain how a lever makes it easier to move objects.
8. I can explain why it hurts to hold a drawing pin at one end but not the other.
9. I can explain what electric current and potential difference are.

## The scientific concepts you should be able to use

1. I can evaluate the strengths and weaknesses of a scientific model
2. I can describe how scientific progress affects people and communities.
3. I can tell the difference between opinion and evidence relating to Science.
4. I can identify the independent and dependent variables and use them to design an experiment.
5. I can make valid comments on the quality of evidence from practical work and data presented in a table.



## The scientific words you should be able to describe

Chloroplast	photosynthesis	Stomata	Palisade	Guard cells	Populations
Producer	Ecosystem	Interdependence	Biotic	Habitat	Community
Invertebrate	Vertebrate	Herbivores	Carnivores	Adaptation	Extinction
Chromosome	Genes	Mutation	Evolution	Extinction	Natural selection
Balanced diet	Malnutrition	Obesity	Carbohydrate	Protein	Fat
Absorption	Digestion	Enzyme	Bile	Drug	Respiration
Aerobic	Anaerobic	Alcohol	Carbon monoxide	Tar	Nicotine
Mixture	Solute	Solvent	Solution	Solubility	Filtration
Evaporation	Distillation	Chromatography	Metamorphic	Igneous	Sedimentary
Weathering	Erosion	Transportation	Reactivity series	Displacement	pH
Acid	Alkali	Exothermic	Endothermic	Combustion	Oxidation
Reduction	Rusting	Potential energy	Kinetic energy	Turbine	Generator
Boiler	Furnace	Geothermal	Hydroelectric	Renewable	Non-renewable
Current	Potential difference	Ammeter	Voltmeter	Series	Parallel
Conductor	Insulator				

