# 'Science' Learning Journey

## YEAR 11

- How are fossils formed?
- What is DNA and what is it made from?
- How is safe, clean water produced?
- How can we manage our resources sustainably?
- What impact are we having on our atmosphere today?
- How do forces affect motion?
- What factors affect the rate of a reaction?
- Are hormones vital for health?
- Do you control your body?
- How is a chromatogram produced and analysed?
- How can I identify an unknown substance?
- How can the rate of a reaction be measured?
- What is the difference between speed and velocity?
- How has our atmosphere evolved?
- How does a compass work?
- How does magnetism help a loudspeaker to work?
- What is the difference between exothermic and endothermic reactions?
- Are humans driving extinctions?
- What is a functional group?
- How do we provide energy sustainably?
- How can energy changes be represented graphically?
- How do we check the health of ecosystems?
- Why are hydrocarbons important?
- How many different types of wave are there?
- What are electromagnetic waves?

## YEAR 10

- How is energy stored and transferred?
- What powers living things?
- How do I quantify a chemical reaction?
- What is electrolysis?
- Will there always be antibiotics?
- Why are plants green?
- Why are moles used in chemistry?
- Which reactions produce a salt?
- Are vaccines safe?
- Would you live next to a nuclear power station?
- How long do things stay radioactive for?
- How do substances move in and out of cells?
- How has our understanding of the atom changed?
- Which organs do we need to survive?
- What is bonding?
- What are atoms made of?
- How is electricity delivered efficiently and safely?
- How do we measure a cell?
- What patterns can be found in the periodic table?
- Which processes keep plants alive?
- How does bonding affect the properties of a material?
- How do we design and use circuits?
- What happens when ice cream melts?
- How do particles behave in solids, liquids and gases?
- What can we achieve on the ISS?
- What is a wave?
- How do forces cause changes in movement?
- Why do objects reach top speed??
- Can I predict reactions?
- Are we all related?
- Where does electricity come from?

## YEAR 9

- Could I be an engineer?
- How long can we survive in space?
- How are light and sound different?
- How can we provide food for all sustainability?
- What is biodiversity?
- How do I know if a substance is reactive?
- What makes me unique?
- How do we use electricity responsibly?
- How can mixtures be separated?
- What will future farming look like?
- What else is in the universe?
- How can we identify an acid or alkali?
- How can acids be neutralised?
- What is a chemical reaction?
- How can we solve world hunger?
- What is our place in space?
- What is disease?
- What is fake news?
- Which materials make the best conductors?
- What are the reproductive organs?
- What is the particle model?
- What are atoms?
- What different forces are there?
- What are living organisms made of?
- How do I stay safe in the Science Lab?
- How do we measure a cell?
- What patterns can be found in the periodic table?
- Which processes keep plants alive?
- How does bonding affect the properties of a material?
- How do we design and use circuits?
- How is electricity delivered efficiently and safely?

## YEAR 8

- What makes an electrical circuit?
- How do humans reproduce?
- Why is energy important?
- How can we organise the elements?
- What can forces do?
- What is the smallest thing we can see?
- How do I carry out a scientific investigation?

**Key:**
- Chemistry
- Biology
- Physics
- Scientific World

welcome

Science knows no country, because knowledge belongs to humanity, and is the torch which illuminates the world. *Louis Pasteur*