

# PCSA Science – Learning Journey

## Careers using Science

- Teacher
- Medicine
- Forensic scientist
- Electrician
- Animal technician
- Paramedic
- SOCO
- Electrician
- Engineer
- Research Scientist
- Physiotherapist
- Personal trainer
- Pathologist
- Veterinary nurse
- Archaeologist
- Radiographer
- Sports scientist
- Pharmacologist
- Psychologist
- ...and many more

Go to university to enhance your studies and get a degree

Start a degree level apprenticeship

what's **YOUR** next move?

Consider your Post-18 options



Complete work experience in a Science based environment



Consider a summer internship and voluntary work to enhance your learning

Complete your Post 16 qualifications to further your GCSE learning



Study a Science course at a College or 6<sup>th</sup> form

**POST 16**

**Coordination and control**  
How do we respond to changes in the environment around us?

**Rate of Reaction**  
How can we make a reaction speed up?



**Moving objects**  
What causes an object to accelerate?



**Evolution**  
What is survival of the fittest? Who is Charles Darwin?



**Ecology**  
How are we as humans affecting the environment?



**Waves**  
Which comes first – lightning or thunder? Why?

**Using Resources**  
How can we make water safe to drink?



**Space**  
How do satellites stay in orbit?



**YEAR 11**

**Inheritance**  
Why do we look like our parents?



**Calculating motion**



**Chemical Analysis**  
How can we test for different ions?



**The Earth's Atmosphere**  
How has our atmosphere changed? Why?



**Magnetism and Electromagnetism**  
How do motors work?



**Nuclear Physics**  
What causes radiation? How dangerous is radiation?



**Particle explanations**



**Energy in Matter**  
On the beach why does the sand burn our feet when the water is cool?



**Mains Electricity**  
How do we get electricity to our homes?



**Biochemistry**  
What happens in our bodies when we exercise? How can farmers make more money?



**Current Electricity**  
How do we get electricity to our homes?



**Chemical Bonding**  
Why are diamonds hard? How do pencils work?



**Energy in matter**  
How does energy cause change in matter?



**Quantitative Chemistry**  
What is a mole? What is concentration?



**Forces and interactions**  
What happens when a parachutist jumps from a plane?



**Infection and Response**  
What are pathogens and how do we destroy them?



**Cells to Organ Systems**  
How is our body organised? Why do we need a heart?



**Chemical Changes**  
How do acids and alkalis act? How can we separate compounds with electricity?



**Energy**  
How do hand warmers work?



**Cell Biology**  
How do cells communicate? What are stem cells?



**YEAR 10**

**How we see?**  
How does light behave? What is white light made of?



**Health and Disease**  
What causes disease? How does our body protect us?



**More About Forces**  
Mass or weight? Why do objects float or sink?



**Reproduction**  
How do plants and animals reproduce?



**Periodic Table**  
Why is it arranged as it is? How does each group behave?



**Tissues to Organ systems**  
How are multicellular organisms organised?



**YEAR 9**

**Biodiversity and Human Impact**  
How do humans impact the environment?



**Motion**  
How can we measure how fast an object is moving?



**Variation and classification**  
Why are we all different to each other?



**Bioenergetics**  
What is the difference between respiration and photosynthesis?



**Energy in reactions**  
Why do objects feel hot or cold following chemical reactions?



**Understanding Chemical Reactions**  
What happens to chemicals when they react with one another?



**Reproduction**  
How do plants and animals reproduce?



**Interdependence**  
Why are living things dependent on one another?



**Electric Energy**  
What is resistance? What can affect charge flow in a circuit?



**Heating and cooling**  
What is the difference between temperature and heat?



**Chemical change**  
What is the difference between chemical and physical changes?



**Inheritance**  
What is a genome? What do we inherit from our parents?



**Electric circuits**  
What is current? How do circuits work?

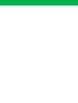


**YEAR 8**

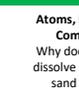
**Energy stores and transfers**  
How is energy transferred? What is an energy store?



**Atoms, Elements & Compounds**  
Why does table salt dissolve in water but sand doesn't?



**Sound and Light**  
Why do we see colored objects? How does sound travel from a drum to your ear?



**Contact Forces**  
What causes an object to start moving or stop moving?



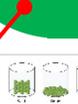
**Transition Day**  
How do we carry out a Science experiment?



**Transition Day**  
How do I stay safe in a science laboratory?



**Substances and Mixtures**  
How can we separate the salt from sandy sea water?



**Cells**  
What are cells? Why are cells different?



**Transition Day**  
How do I stay safe in a science laboratory?



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**Primary School**

**YEAR 7**