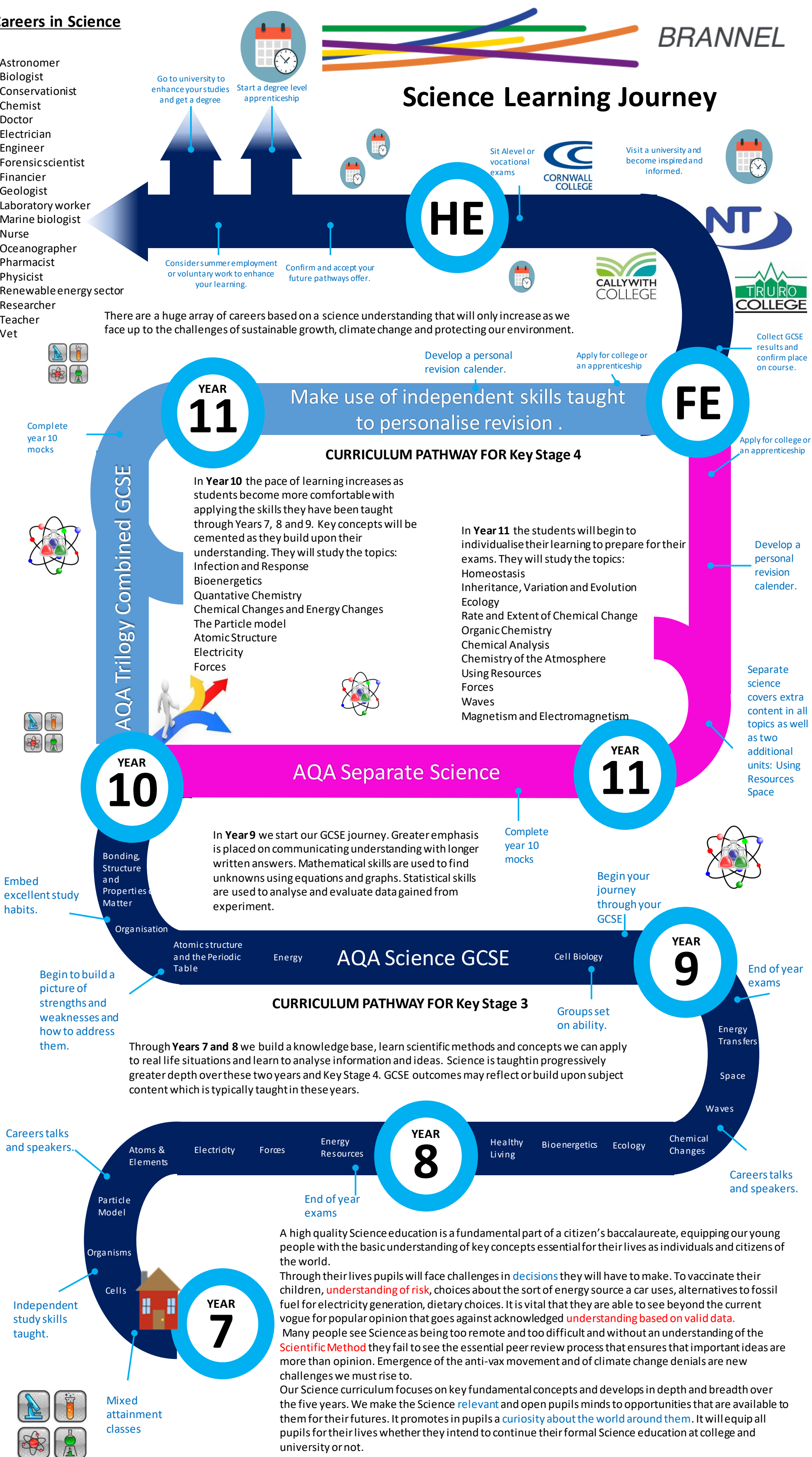


Science Learning Journey

- Astronomer
- Biologist
- Conservationist
- Chemist
- Doctor
- Electrician
- Engineer
- Forensicscientist
- Financier
- Geologist
- Laboratory worker
- Marine biologist
- Nurse
- Oceanographer
- Pharmacist
- Physicist
- Renewable energy sector
- Researcher
- Teacher
- Vet

There are a huge array of careers based on a science understanding that will only increase as we face up to the challenges of sustainable growth, climate change and protecting our environment.



YEAR 11

Make use of independent skills taught to personalise revision.

FE

CURRICULUM PATHWAY FOR Key Stage 4

In **Year 10** the pace of learning increases as students become more comfortable with applying the skills they have been taught through Years 7, 8 and 9. Key concepts will be cemented as they build upon their understanding. They will study the topics:
 Infection and Response
 Bioenergetics
 Quantative Chemistry
 Chemical Changes and Energy Changes
 The Particle model
 Atomic Structure
 Electricity
 Forces

In **Year 11** the students will begin to individualise their learning to prepare for their exams. They will study the topics:
 Homeostasis
 Inheritance, Variation and Evolution
 Ecology
 Rate and Extent of Chemical Change
 Organic Chemistry
 Chemical Analysis
 Chemistry of the Atmosphere
 Using Resources
 Forces
 Waves
 Magnetism and Electromagnetism

AQA Trilogy Combined GCSE

YEAR 10

AQA Separate Science

YEAR 11

In **Year 9** we start our GCSE journey. Greater emphasis is placed on communicating understanding with longer written answers. Mathematical skills are used to find unknowns using equations and graphs. Statistical skills are used to analyse and evaluate data gained from experiment.

AQA Science GCSE

YEAR 9

CURRICULUM PATHWAY FOR Key Stage 3

Through **Years 7 and 8** we build a knowledge base, learn scientific methods and concepts we can apply to real life situations and learn to analyse information and ideas. Science is taught in progressively greater depth over these two years and Key Stage 4. GCSE outcomes may reflect or build upon subject content which is typically taught in these years.

YEAR 8

Careers talks and speakers.

Independent study skills taught.

YEAR 7

A high quality Science education is a fundamental part of a citizen's baccalaureate, equipping our young people with the basic understanding of key concepts essential for their lives as individuals and citizens of the world.

Through their lives pupils will face challenges in **decisions** they will have to make. To vaccinate their children, **understanding of risk**, choices about the sort of energy source a car uses, alternatives to fossil fuel for electricity generation, dietary choices. It is vital that they are able to see beyond the current vogue for popular opinion that goes against acknowledged **understanding based on valid data**. Many people see Science as being too remote and too difficult and without an understanding of the **Scientific Method** they fail to see the essential peer review process that ensures that important ideas are more than opinion. Emergence of the anti-vax movement and of climate change denials are new challenges we must rise to.

Our Science curriculum focuses on key fundamental concepts and develops in depth and breadth over the five years. We make the Science **relevant** and open pupils minds to opportunities that are available to them for their futures. It promotes in pupils a **curiosity about the world around them**. It will equip all pupils for their lives whether they intend to continue their formal Science education at college and university or not.

Mixed attainment classes