

GCSE Combined Science: Trilogy (2 GCSE's)

Everyone must follow a National Curriculum Science course. Students will study a number of modules across Biology, Chemistry and Physics meeting the AQA Specification for the trilogy course.

The knowledge, skills and understanding developed during this course will provide a foundation appropriate to many aspects of everyday life.

They also provide a foundation required to be successful in many careers from trades such as electrician and plumber to hairdressing and beauty, technology-based careers and NHS careers to name just a few.



WHERE CAN BIOLOGY TAKE YOU?

AGRICULTURE This sector employs over 300,000 people across the UK. Although some agricultural roles are expected to drop by 2030, many new jobs will be created in 'agri-tech'. <i>Career paths:</i> Ecologist, farmer, food scientist	ENGINEERING The proportion of young engineers has dropped over the last decade. This means there will be a high demand for younger workers in coming years. <i>Career paths:</i> Biomedical engineer, design engineer, project engineer
MEDICINE & HEALTHCARE The UK healthcare industry employs over four million people, making it one of the largest employment sectors. Four in five highest average graduate salaries are in fields related to medicine. <i>Career paths:</i> Dental nurse, physiotherapist, etc.	POLICE & EMERGENCIES There is a high demand for trained paramedics with one in 10 vacancies unfilled. With the police force, digital and IT skills are highly sought after to better fight crime. <i>Career paths:</i> Crime scene investigator, fire generalist, paramedic
SCIENCE & RESEARCH Between 2016 and 2023, jobs in science and research will grow at twice the rate of other industries, creating 142,000 new jobs. One in every six jobs will be in science and research. <i>Career paths:</i> Biotechnologist, laboratory technician, research scientist	SPORT & FITNESS There are currently 431,000 people employed in the sports & fitness industry. The number of people employed in the industry has grown every year since 2013. <i>Career paths:</i> Personal trainer, rehabilitation therapist, etc.

EMPLOYER: INVESTMENT 2040
By studying biology you will be able to start a career in the investment management industry, in a key part of your studies is to compare data, which is a useful skill in this field.

WANT MORE CAREERS ADVICE?

WHERE CAN CHEMISTRY TAKE YOU?

ENERGY & UTILITIES Today, about 500,000 people work in the energy sector. But with the demand for green energy growing, by 2020 half a million people could be working in renewables alone. <i>Career paths:</i> Geotechnical, multi-grades, renewable energy engineer	ENGINEERING The proportion of young engineers has dropped over the last decade. This means there will be a high demand for younger workers in coming years. <i>Career paths:</i> Chemical engineer, civil engineer, nuclear engineer
FAST CONSUMER GOODS Online grocery shopping is expected to increase by 68% between 2016 and 2021. This means that new e-commerce jobs will be created to match the growing demand. <i>Career paths:</i> Food scientist, market research, quality controller	MANUFACTURING The manufacturing sector employs around three million people and accounts for 9% of employment in the UK. That's a lot of jobs! <i>Career paths:</i> Manufacturing manager, stock control manager
MEDICINE & HEALTHCARE The UK healthcare industry employs over four million people, making it one of the biggest employment sectors. Four of the five highest average graduate salaries are in fields related to medicine. <i>Career paths:</i> Doctor, nurse, optician	RECRUITMENT & HR The Recruitment & HR industry employs around 100,000 people and this is only expected to grow in the future. <i>Career paths:</i> HR officer, recruitment consultant, training manager

SCIENCE & RESEARCH
Between 2016 and 2023, jobs in science and research will grow at twice the rate of other industries, creating 142,000 new jobs. One in every six jobs will be in science and research.
Career paths: Lab scientist, pharmaceutical, research and development

WANT MORE CAREERS ADVICE?

WHERE CAN PHYSICS TAKE YOU?

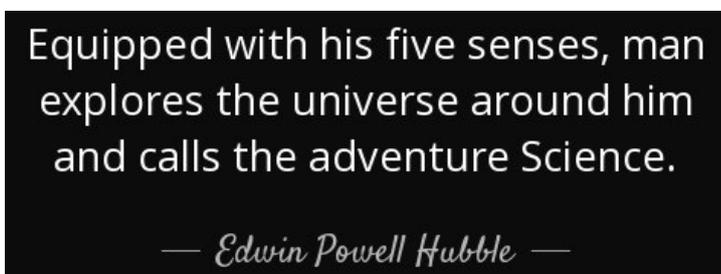
CONSTRUCTION With almost 300,000 businesses trading in construction, this sector accounts for 7% of all employment in the UK. That's 2.3 million jobs! <i>Career paths:</i> Architects, design engineer, construction manager	ENERGY & UTILITIES Today, about 500,000 people work in the energy sector. But with the demand for green energy growing, by 2020 half a million people could be working in renewables alone. <i>Career paths:</i> Electrician, gas engineer, geoscientist, plumber
ENGINEERING The proportion of young engineers has dropped over the last decade. This means there will be a high demand for younger workers in the years to come. <i>Career paths:</i> Electronic/mechanical/software engineer	IT & THE INTERNET People with qualifications in Information Technology have one of the highest rates of employment in the UK. <i>Career paths:</i> Cyber security analyst, database developer, games developer
SCIENCE & RESEARCH Between 2016 and 2023, jobs in science and research will grow at twice the rate of other industries, creating 142,000 new jobs. One in every six jobs will be in science and research. <i>Career paths:</i> Aerospace engineer, data scientist, building scientist	TRANSPORT & LOGISTICS The UK transport industry employs 1.5 million people across the nation. Over the next 10 years, 100,000 new workers will be required in rail alone! <i>Career paths:</i> Air traffic controller, logistics analyst, mechanic, pilot

EMPLOYER: Cadent
Cadent needs amazing problem solvers to keep gas flowing securely and sustainably across the UK. Physics can help you understand the science behind our gas network, and gives you the communication and analytical skills to be a great employee!

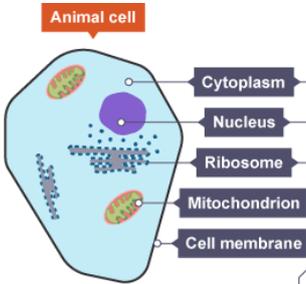
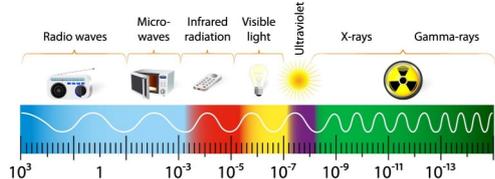
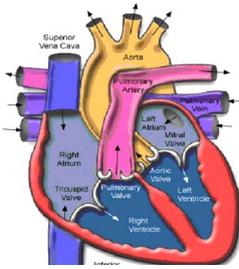
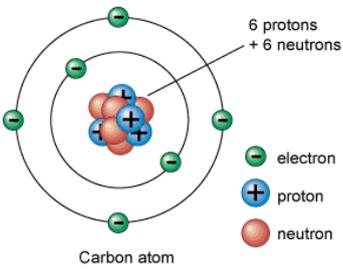
EMPLOYER: LAND ROVER
At Jaguar Land Rover, the next generation of innovators will create groundbreaking technologies. Physics gives you the scientific understanding and creativity to come up with new innovations and be successful on our engineering apprenticeships.

WHAT SKILLS WILL I USE AND DEVELOP?

You will have the opportunity to study key concepts that you will come across in everyday life and link them to scientific ideas and their implications for society. This will be done in a creative way allowing you to complete practical activities within a laboratory setting. You will learn to develop a critical approach to questioning the world around you. You will learn how to collect and process scientific evidence and develop your understanding of how science works.



As part of the course you will complete 16 required practical's to ensure you are able to work scientifically and to give you the opportunity to develop your investigative skills.

	Chemistry	Physics
Cell biology	Atomic structure and the periodic table	Energy
Organisation		Electricity
Infection and response	Bonding, structure, and the properties of matter	Particle model of matter
Bioenergetics		Atomic structure
Homeostasis and response	Quantitative chemistry	Forces
Inheritance, variation and evolution	Chemical changes	Waves
Ecology	Energy changes	Magnetism and electromagnetism
	The rate and extent of chemical change	<p>THE ELECTROMAGNETIC SPECTRUM</p> 
	Organic chemistry	
	Chemical analysis	
	Chemistry of the atmosphere	
	Using resources	
<p>ANATOMY OF THE HEART</p> 	<p>The pH Scale</p> 	
		

WHAT EXAMINATIONS WILL I TAKE?

Science AQA Trilogy course (2 GCSE's)

6 exams (2xBiology, 2x Chemistry, 2x Physics)

1h 15m each, equally weighted

these are written exams taken at the end of the course. They will include questions that draw on practical science experience. At least 15% of marks for each GCSE will be allocated to these.