



BLACKPOOL SIXTH

Path your future in....  
**Science, Technology,  
Engineering and Maths**



## WHICH PATH DO YOU WANT TO TAKE?

### MEDICINE

This pathway leads to a career in Surgery, Pathology, General Practice and medical specialisms.

You will study AS/A level Biology, Chemistry, Maths and ideally one of the following: English Literature, History, Psychology, Geography, Economics, REP, French, German or Spanish.

### VETERINARY SCIENCE

A well as a career as a vet other employment opportunities from taking this pathway include research and wildlife conservation.

You will study AS/A level Biology, Chemistry, Maths, Physics

### BIOMEDICAL SCIENCES

This pathway will interest those who see their future in specialist laboratory work, expert and consultant roles, research, education and management.

You will study AS/A level Biology, Chemistry, Maths with one other AS/A level course. This could be Further Maths.

### BIOLOGICAL/LIFE SCIENCES

This pathway will lead to careers in zoology, marine biology, pathology, genetics and embryology.

You will study BTEC Level 3 Diploma in Applied Science and two AS/A level subjects or BTEC Level 3 Extended Diploma in Applied Science with one other AS/A level subject.

You will study AS/A level Biology, Chemistry, Maths and Geography.

### ENGINEERING

The sectors of automotive, aviation, construction, defence, manufacturing, nuclear, scientific and renewable energy are key areas of employment that this pathway leads to.

You will study four AS/A levels including Physics and Maths. Further Maths, Electronics and Computing are useful choices whilst Chemistry is required for Chemical Engineering.

### EARTH SCIENCES

This pathway will lead to careers in geology, agricultural sciences, archeology, climate and atmospheric sciences, health and safety, mineral exploration and soil sciences.

You will study four AS/A levels which must include Chemistry and Maths. Biology or Geography are also recommended.

### SCIENCE / TECHNICAL

This will lead to laboratory work across all sectors.

You will study BTEC Level 3 Diploma in Applied Science with two AS/A level courses or BTEC Level 3 Extended Diploma in Applied Science with one AS/A level course.

### ARCHITECTURE

For students interested in careers as an architect, architectural technician, architectural CAD, architectural technologist or surveyor.

You will choose one AS/A level subject from each of the following areas; Technical: Maths or Physics. Humanities: Geography or Modern History. Art: Fine Art or Graphic Design. You will also study one other subject, either doubling up in one of the suggested areas or another traditional academic subject.

### MATHS AND STATISTICS

Leads to careers such as an actuary, statistician, computer scientist, civil engineer, economist or air traffic control analyst.

You will study AS/A level Maths and Further Maths with two other academic AS/A levels, which could include AS/A level Statistics.

## FORMER BLACKPOOL SIXTH STUDENTS:

### FACTS


- Starting salaries for newly graduated trainee engineers average £24,000.
- Only 7% of professional engineers are females (WISE, 2010). The Institute of Civil Engineers (ICE) and some large companies offer mentoring programmes for women.
- Women in Science and Construction (WISE) was established to encourage women to consider an engineering career.
- STEM is the only sector which has maintained Government funding at university level.
- Green Technology is set to be the biggest UK engineering sector.

### NORTH WEST REGION EARNINGS


JOB TITLE	TYPICAL ANNUAL SALARIES
Trainee Engineers	£24,000
Geoscientist	£30,000 - £35,000
Health and Safety Officer (new professionals)	£18,000 - £24,500
Environmental Manager	£18,000 - £30,000
Trainee Biomedical Scientist	£20,000 - £26,500
Veterinary Surgeon (starting package)	£30,000 - £39,500
Hospital Doctor	£35,000 - £40,000



Dr. Sarah Howarth left Blackpool Sixth in 2001 and studied Medicine at the University of Liverpool. She currently works as a General Practitioner in Lymm, Manchester.



Former Blackpool Sixth student Mark Cooper is a Senior Estimator on the Typhoon Availability Service for BAE Systems. Mark studied Mathematics, Physics and Graphics at Blackpool Sixth and achieved a degree in Civil and Structural Engineering at University of Leeds.



Paul Topham, who graduated from the Blackpool Sixth in 1998, is currently a lecturer of Chemistry at Aston University in Birmingham. Paul studied A levels in Chemistry, Maths, Physics and Graphical Communication before completing a Masters and a PhD in Chemistry at the University of Sheffield.

## JOB OPPORTUNITIES

- The UK has the sixth largest manufacturing industry, which alone employs 3 million people.
- In 2008 there were 470,305 engineering enterprises employing 4.5 million people in the UK (Engineering UK, 2009/10).
- Pharmaceutical and medical sales is a significant career area in the UK and worldwide.

Source: Blackpool Focus LMI Newsletter, CXL. Winter 2008, and [www.prospects.ac.uk](http://www.prospects.ac.uk)



## USEFUL CONTACTS

Association for Consultancy and Engineering (ACE) [www.acenet.co.uk](http://www.acenet.co.uk)  
Institute of Materials, Minerals and Mining (IOM3) [www.iom3.org](http://www.iom3.org)  
Institute of Measurement and Control [www.instmco.org.uk](http://www.instmco.org.uk)  
Institute of Physics and Engineering in Medicine (IPEM) [www.ipem.org.uk](http://www.ipem.org.uk)  
Institution of Chemical Engineers (IChemE) [www.icheme.org](http://www.icheme.org)  
Institution of Civil Engineers (ICE) [www.ice.org.uk](http://www.ice.org.uk)  
Institution of Engineering and Technology (IET) [www.theiet.org](http://www.theiet.org)  
Institution of Mechanical Engineers (IMechE) [www.imeche.org](http://www.imeche.org)  
Institution of Structural Engineers (IStructE) [www.istructe.org](http://www.istructe.org)  
NHS Careers - England [www.nhscareers.nhs.uk](http://www.nhscareers.nhs.uk)  
Royal College of Veterinary Surgeons (RCVS) [www.rcvs.org.uk](http://www.rcvs.org.uk)  
British Medical Association (BMA) [www.bma.org.uk](http://www.bma.org.uk)

Source: Annual Survey of Hours and Earnings (2007) North West regional data set. Data refers to gross mean earnings for full-time jobs. Annual figures have been rounded to nearest hundred and weekly figures to the nearest full pound (Crown Copyright)

[www.prospects.ac.uk](http://www.prospects.ac.uk)

