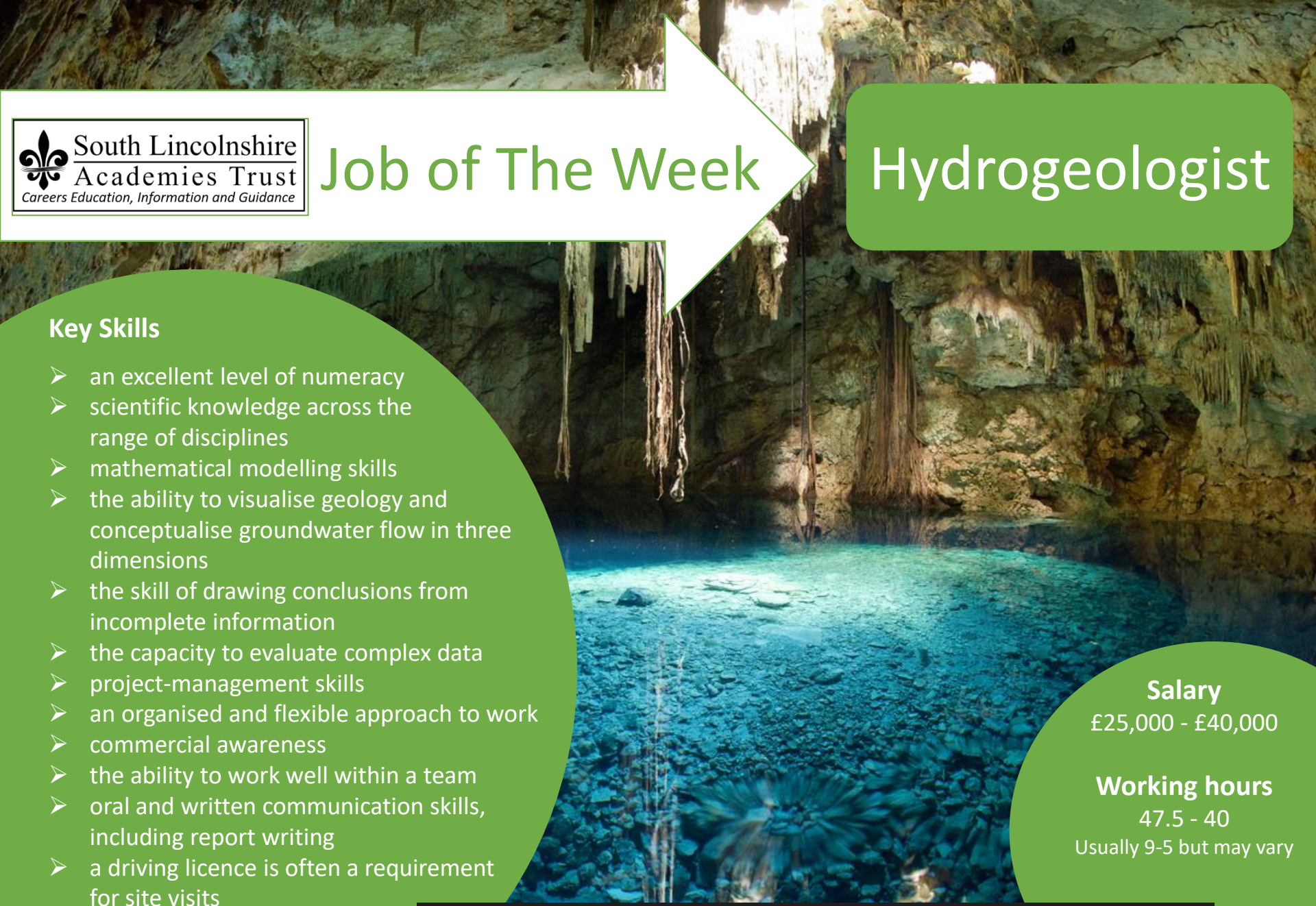
South Lincolnshire Academies Trust
Careers Education, Information and Guidance

Job of The Week

Hydrogeologist



Key Skills

- an excellent level of numeracy
- scientific knowledge across the range of disciplines
- mathematical modelling skills
- the ability to visualise geology and conceptualise groundwater flow in three dimensions
- the skill of drawing conclusions from incomplete information
- the capacity to evaluate complex data
- project-management skills
- an organised and flexible approach to work
- commercial awareness
- the ability to work well within a team
- oral and written communication skills, including report writing
- a driving licence is often a requirement for site visits
- IT skills

Salary
£25,000 - £40,000

Working hours
47.5 - 40
Usually 9-5 but may vary

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Hydrogeologist

How to become a Hydrogeologist:

University

You will usually require a Masters degree in Hydrogeology or a related subject that includes groundwater.

Entry Requirements

To access a Masters degree (PhD) you must first obtain a good Honours degree from the full range of Science, Engineering and Environmental disciplines. Some universities will require an A/S or A Level in Maths.

The entry requirements for such a degree will usually be A Levels or the equivalent in subjects such as Geography, Engineering Geology, Mathematics, Economics, Biology, Chemistry, Environmental Science or Physics. Science A-levels must include a pass in the practical element.

rsities will accepted a small Extended National Diplomas

Additional information

HND or foundation degree holders may find employment in Technician-level roles with some employers.

Entry without a degree, HND or foundation degree is not possible due to the scientifically-challenging nature of the work.

If you have a relevant first degree, your employer may support you to study at postgraduate level.

Work experience

Relevant work experience is a major advantage. This can be summer work, industry projects or voluntary activities.

You should try to gain experience in a range of geological or environmental organisations, such as the Environment Agency (EA), as opportunities for work experience purely in hydrogeology can be hard to find.

Find out more about the different kinds of work experience and internships that are available.

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Career information

Salaries tend to be higher in private companies and consultancies than in the public sector. Additional benefits may include a company car, medical insurance and a pension scheme.
Becoming chartered with a relevant professional body will help to enhance your career. Most commonly this is with CIWEM. If you have a geology degree you may choose to follow the chartership route via the Geological Society

Day to Day tasks

Your duties could include:

- apply an understanding of the impact rock types and structures have on groundwater occurrence and movement
- understand and interpret maps, geographical data, historical evidence and models, often based on incomplete information
- use computers to model groundwater flow, chemistry and temperature
- undertake field work and site visits for investigative and monitoring purposes
- design and commission boreholes for research
- undertake environment impact assessments
- analyse collected information, to assess and predict the impact of activities
- ensure compliance with health & safety and environmental legislation and keep up to date with technological and legislative developments
- write reports which can be understood by people who don't have a technical background
- answer technical queries and provide advice in writing and over the telephone
- manage projects and contractors

Working conditions

typically office based, but site visits and field work can form a essential aspect of the work

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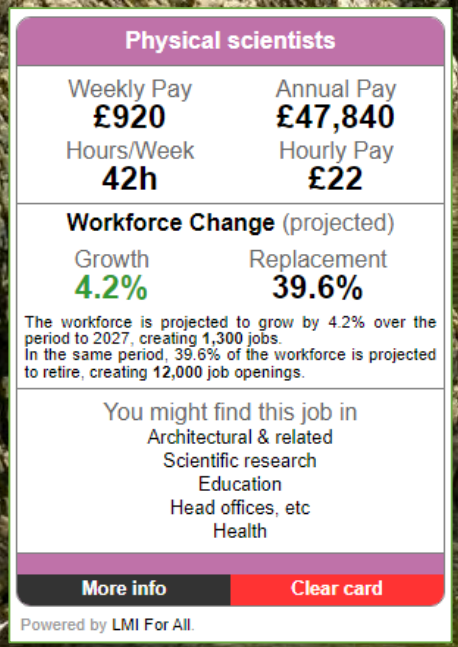
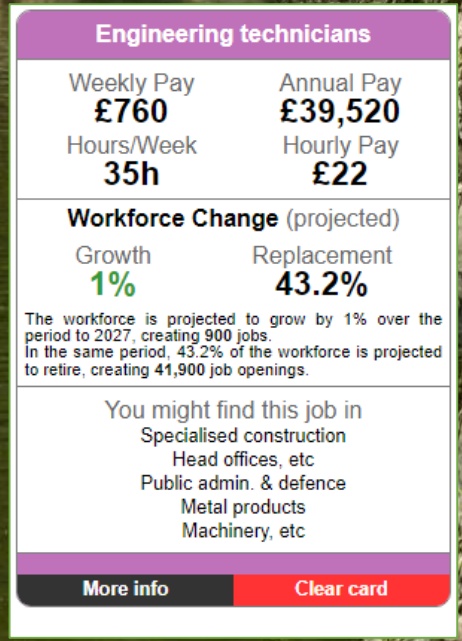
Labour Market Information

In the Careers section of the school website you can find the useful comparison tool the 'Labour Market Information widget'.

Use the widget to compare different job roles in any employment sector or relating specifically to the 'Job of the Week'.





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Labour Market Information

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Physical scientists

Physical scientists study relationships between matter, energy and other physical phenomena, the nature, composition and structure of the Earth and other planetary bodies and forecast weather conditions and electrical, magnetic, seismic and thermal activity.

Common tasks in this job:

- conducts experiments and tests and uses mathematical models and theories to investigate the structure and properties of matter, transformations and propagations of energy, the behaviour of particles and their interaction with various forms of energy;
- uses surveys, seismology and other methods to determine the earth's mantle, crust, rock structure and type, and to analyse and predict the occurrence of seismological activity;
- observes, records and collates data on atmospheric conditions from weather stations, satellites, and observation vessels to plot and forecast weather conditions;
- applies mathematical models and techniques to assist in the solution of scientific problems in industry and commerce and seeks out new applications of mathematical analysis.

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Natural and social science professionals n.e.c.

Jobholders in this unit group perform a variety of scientific research and related activities not elsewhere classified in MINOR GROUP 211: Natural and Social Science Professionals.

Common tasks in this job:

- plans, directs and undertakes research into natural phenomena;
- provides technical advisory and consulting services;
- designs tests and experiments to address research objective and find solutions;
- applies models and techniques to medical, industrial, agricultural, military and similar applications;

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Engineering technicians

Engineering technicians perform a variety of technical support functions to assist engineers with the design, development, operation, installation and maintenance of engineering systems and constructions.

Common tasks in this job:

- plans and prepares work and test schedules based on specifications and drawings;
- sets up equipment, undertakes tests, takes readings, performs calculations and records and interprets data;
- prepares estimates of materials, equipment and labour required for engineering projects;
- diagnoses and detects faults and implements procedures to maintain efficient operation of systems and equipment;

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Keep looking…

Use these links to learn more about our Job of The Week, consider the various pathways leading to the career, what you can be doing now to help yourself and other roles in the industry…

Take a look at these short videos for inspiration…

Day in the life of a Hydrogeologist

https://www.youtube.com/watch?v=JRt-zGKuhCM

What is Hydrogeology?

https://www.youtube.com/watch?v=5wb-CgQdG6o

My life as a Hydrogeologist

https://www.youtube.com/watch?v=FkQi_E42UTI

Studying Hydrogeology

https://www.youtube.com/watch?v=lgQHFy4n6j8

Useful Websites

Hydrogeologist job profile | Prospects.ac.uk

How to Become a Hydrogeologist | EnvironmentalScience.org

Careers: Links to Employers (groundwateruk.org)

Search – UCAS

What is Hydrogeology and what do Hydrogeologists do? - IAH - The International Association of Hydrogeologists

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