Computing Science National 3, 4 & 5

What will I study?

Software Design and Development where pupils will explore different programming environments and learn computational thinking techniques. They will learn about a range of programming constructs and how to design and develop solutions to problems.

Database Design and Development where pupils will design and create databases and explore the functions of database software (including the use of SQL at National 5 and Higher).

Web Design and Development where pupils will learn about the purpose and functionality of different websites. They will design and create their own websites using both HTML code and web authoring software.

Computer Systems where pupils will learn about technical implications, computer structure, data representation, security precautions and environmental impact.

What skills will I develop?

Pupils will develop a range of ICT skills and the confidence and ability to explore a wide range of software.

They will develop skills in planning and creativity when designing and building digital solutions to problems.

Problems solving skills and computational thinking will be enhanced.

Program language concepts and experience of more than one programming language.

Skills in relation to both team work and working independently.

Possible Careers Computer Engineer Computer Programmer Database Manager Cyber-Security Astronaut Robotics Computing Programmer **Applications** Programmer Computer Games Design & Information Development Scientist Artificial Intelligence

How will I be assessed?

National 5 pupils complete an assignment in school and sit a final exam. Both of these are sent away to be marked.

National 3 and 4 units are assessed in school by your class teacher.

What can I go on and study in fifth and sixth year?

National 3 → National 4 Computing,
NPA Level 4 Games Design &
Development
National 4 → National 5 Computing,
NPA Level 5 Games Design &
Development
National 5 → Higher Computing

Need more info? -

Nationals in a Nutshell