Curricular Area: Technologies   **Course Title:** Computing Science Higher

Course Description: Higher Computing Science includes:

Software Design and Development
This Unit will develop knowledge, understanding of advanced concepts and practical problem-solving skills in software design and development. You will:

- Develop **advanced Programming** skills
- Improve your '**Computational thinking**'
- **Solving** both simple and complex problems
- **Design, Implementing, Testing** and **Evaluating** practical **solutions** to problems
- **Understand** and explain how programs work
- Develop an understanding of **computer architecture**
- Investigate and understand the impact of **contemporary computing technologies**

Information System Design and Development
This Unit will develop knowledge, understanding of advanced concepts and practical problem-solving skills related to information system design and development through practical and investigative tasks. You will:

- Learn to use a range of **development tools** and software

- Apply **computational thinking skills** to problems
- Implement practical **solutions** using a range of tools
- Learn about and understand the **technical**, **legal, environmental, economic** and **social issues** affecting Information Systems

Assessment
Coursework Assignment – 40% | External Question Paper – 60%
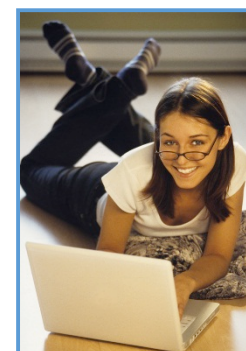
Home Study Expectations
Students are expected to spend time doing home study in S5/6, and home study work may be issued throughout the course.

Possible next level of study

Advanced Higher Computing Science | College or University Computing Courses

Wider Achievement Opportunities

Students have the opportunity to **explore** and **develop skills** in Computing Science through practical exercises which reflect **real-world** scenarios.

Possible career paths

Computing Science will be an asset in any future career; specific roles include: 3D Modelling and animation, bioinformatics, business analysis, computer aided design, computer games programming, computer games testing, computer hardware engineering, database administration, games production management, IT consultant, IT help desk support, IT support services, IT project management, multimedia development, network management, software engineering, software programming, systems analysis and design, systems development, teaching, web development.