Rationale

The computing department aims to equip our learners with the necessary ICT skills to equip them to function effectively in everyday life. We provide a relevant, challenging, stimulating and enjoyable curriculum.

Aims and Objectives

Our aims and objectives are:

Every pupil should have the opportunity to learn material that is recognisably "Computer Science".

Every pupil should have the opportunity to take suitable certificated course work.

Every pupil should appreciate that computational ideas inform and illuminate other disciplines, and this should be reflected in the teaching of these disciplines at school. Like numeracy and literacy there is a cognitive strand of computing that offers valuable thinking skills to learners of all ages

(e.g. algorithmics, logic, visualisation, precision, abstraction).

Course S1 – S3

Using a computer.   **Using the Internet**

Switching On and Off   Suitable Web Sites

Logging On   Sending and
Receiving E-Mails

Passwords   Research

Improving keyboard skills.

                                                               Seasonal/Topical Work

                                                               Christmas
Cards etc.

Using Microsoft Office Devices

Word, Excel, Publisher & Powerpoint
Scanner

Use of External

Cameras, Video,

Working with Images Assisted Learning

Microsoft Paint, Serif Draw and Serif Photo Plus
program LightBytes Plus

Digital Imaging (Taking Photographs)

Using Computer

ICT Learning

Basic Programming

Scratch (Simple control programs)
(Simple tables)

Data Handling

Microsoft Access

Courses Available S3-S6

ICT Applications (National 2)

Outcome 1
The candidate will demonstrate an understanding of the relationship between applications, equipment and peripherals by:

Identifying a range of equipment and peripherals
Choosing appropriate equipment/peripherals for given applications
Following health and safety requirements when using equipment/peripherals
Following hygiene guidelines when using equipment/peripherals

Outcome 2

The candidate will carry out operations across a range of applications by:

Following correct procedures to open the applications
Demonstrating skills in using the main functions of the applications
Using the save and print functions of the applications
Following correct procedures to close the applications

Multimedia Applications (National 2)

Outcome 1

The candidate will create a multimedia presentation by:

1.1	Opening the presentation software application
1.2	Creating a presentation containing a range of media
1.3	Saving the presentation
1.4	Following correct procedures to close the application

Outcome 2

The candidate will deliver the multimedia presentation by:

2.1	Opening the presentation software application
2.2	Retrieving the presentation
2.3	Checking the presentation is ready to run
2.4	Running the presentation
2.5	Following correct procedures to close the application

Internet Applications (National 2)

Outcome 1

The candidate will use a search engine correctly and safely to find information on the internet by:

1.1   Searching for specific information, using appropriate navigation tools
1.2   Using keywords for different internet searches
1.3   Following safety rules for appropriate internet use

Outcome 2

The candidate will use an e-mail application to send and receive messages correctly and safely by:

2.1   Opening the e-mail application correctly and safely
2.2   Creating, titling, addressing and sending an e-mail message
2.3   Creating and sending a reply to an e-mail message
2.4   Following correct procedures to close the e-mail application
2.5   Following safety rules for appropriate e-mail use

Working with Digital Images (National 2)

Outcome 1

The candidate will make changes to digital images by:

1.1   Opening the software application
1.2   Selecting digital images
1.3   Making alterations to the selected digital images
1.4   Saving the changed digital images in an appropriate format
1.5   Following correct procedures to close the application

Outcome 2

The candidate will show the altered digital images by:

2.1   Opening the software application
2.2   Retrieving the digital images
2.3   Checking the digital images are ready to be shown
2.4   Showing the digital images
2.5   Following correct procedures to close the application

Information Solutions (National 3)

Outcome 1

Develop simple information solutions using appropriate applications by:

1.1   Creating a structure to store information
1.2   Populating the structure with information
1.3   Sharing location of information via digital communications technology with others
1.4   Locating specific information using simple searching
1.5   Identifying and rectifying simple errors
1.6   Maintaining information by keeping it accurate and up to date

Outcome 2

Identify some of the key features of applications by:

2.1   Listing the basic objects and/or operations
2.2   Stating their purpose

Building Digital Solutions (National 3)

Outcome 1

Develop simple digital solutions using appropriate development software by:

1.1 Outlining the main steps to develop a solution
1.2   Identifying objects required
1.3   Using and managing a sequence of operations
1.4   Testing the solution to ensure expected output
1.5   Identifying and rectifying simple errors

Outcome 2

Identify some of the key features of development software by:

2.1   Listing the basic objects and/or operations
2.2   Stating their purpose

Software Design and Development (National 4)

Outcome 1

Explain how simple programs work, drawing on understanding of basic concepts in software development by:

1.1   Reading and explaining code
1.2   Describing the purpose of a range of programming constructs and how they work
1.3   Explaining how data and instructions are stored

Outcome 2

Develop short programs using a software development environment by:

2.1   Selecting and using expressions, sequence, selection and iteration
2.2   Selecting and using appropriate simple data types, such as numeric (integer) and string
2.3   Testing digital solutions using supplied test data
2.4   Identifying and rectifying errors in programs

Information System Design and Development (National 4)

Outcome 1

Develop simple information systems, using appropriate development tools by:

1.1   Creating a structure and links
1.2   Integrating different media types
1.3   Identifying and rectifying errors

Outcome 2

Consider a number of basic factors involved in the design and implementation of an information system by describing, in simple terms:

2.1   Its basic features and functionality
2.2   Its hardware, software, storage and connectivity requirements
2.3   The security risks involved in digital communication

Computing Science Assignment (National 4) Added Value Unit (Games Review)

Outcome 1

Develop, with guidance, a digital solution which will draw on and apply the skills and knowledge of software and information system design and development by:

1.1 Analysing a straightforward problem
1.2 Designing a solution to the problem
1.3 Creating a program or application as solution to the problem
1.4 Testing and reporting on the solution to the problem

New Unit to be introduced session 2019 – 2020

Software Design and Development (National 5)

Outcome 1

Explain how programs work, drawing on understanding of concepts in software development and basic computer architecture by:

1.1   Reading and explaining code
1.2   Describing the purpose of a range of programming constructs and how they work
1.3   Describing the purpose of a range of variable types
1.4   Describing in simple terms how programs relate to low-level operations and structures

Outcome 2

Develop programs using one or more software development environments by:

   2.1   Selecting and using a combination of appropriate constructs
   2.2   Selecting and using appropriate simple data types, such as numeric (integer and real), string and Boolean
   2.3   Testing digital solutions using own test data
   2.4   Providing internal commentary

Information System Design and Development (National 5)

Outcome 1

Develop information systems, using appropriate development tools by:

1.1   Creating a structure and links
1.2   Creating a user interface
1.3   Writing or editing simple code
1.4   Integrating different media types

Outcome 2

 Consider the factors involved in the design and implementation of an information system by:

2.1   Describing the purpose, range and types of users

2.2   Describing the hardware, software, storage and connectivity requirements
2.3   Describing security risks and precautions
2.4   Describing legal implications
2.5   Describing their impact on the environment