

## ICT Ethos and Teaching

**Subject Lead:** Mr Paul McConnachie

### Intent:

At Kilgarth we want Pupils to be MASTERS of technology. Technology is everywhere and will play a pivotal part in students' lives. Therefore, we want to model and educate our Pupils on how to use technology positively, responsibly and safely. We want our Pupils to be creators not consumers and our broad curriculum encompassing computer science, information technology and digital literacy reflects this. We want our Pupils to understand that there is always a choice with using technology and as a school we utilise technology to model positive use. We recognise that the best prevention for a lot of issues we currently see with technology/social media is through education. We recognise that technology can allow Pupils to share their learning in creative ways. We also understand the accessibility opportunities technology can provide for our Pupils. Our knowledge rich curriculum has to be balanced with the opportunity for Pupils to apply their knowledge creatively, which will in turn help our Pupils become skilful computer technicians and scientists. We encourage staff to try and embed computing across the whole curriculum to make learning creative and accessible. We want our Pupils to be fluent with a range of tools to best express their understanding and hope children have the independence and confidence to choose the best tool to fulfil the task and challenge set by teachers. All this enables Pupils to achieve their individual potential and achieve a qualification in this core subject area at the end of Key Stage 4.

### Implementation Programme of Study:

**Key Stage 3** – Pupils' follow the national curriculum programme of study in years 7,8 and 9

	Autumn	Spring	Summer
<b>Year 7</b>	<p><b>Introduction to ICT</b>– Pupils will learn how to develop folders and an understanding of the ICT Curriculum</p> <p><b>E-Safety</b>– Pupils will learn about being safe online and working safely on the computer.</p> <p><b>Presentations</b>– Pupils will learn how to use a specific software program for creating presentations.</p> <p><b>Scratch Programming</b> – Pupils will be able to use Programming to develop different mini programs using different skills.</p>	<p><b>Databases</b> – Pupils will learn about how Databases are used in society and specific language terms</p> <p><b>Networks from Semaphores to The Internet</b>– Pupils will learn how the link between early signing and the current internet was formed.</p> <p><b>Spreadsheets</b>– Pupils will learn how spreadsheets are used to create formulas and charts.</p> <p><b>Programming in Kodu (Game Design)</b>– Pupils will be able to program a game using a new software environment.</p>	<p><b>Using Media</b>– Pupils will learn media is important when using computers.</p> <p><b>Web Design</b>– Pupils will learn to use the concept of HTML when designing webpages.</p> <p><b>Representing Data, Images-Sound-Text</b> – Pupils will be able to explain how data, images and text and used in the digital realm.</p> <p><b>Stop frame Animation</b>– Pupils will be able to create an animation using stop frame skills.</p>
<b>Year 8</b>	<p><b>Theme Park Project</b>–Pupils will learn about being responsible for a whole project and will take ownership of their learning.</p> <p><b>E-Safety</b>– Pupils will learn about being safe online and working safely on the computer.</p>	<p><b>Cryptography</b>– Pupils will learn about the concept of cryptography and how it is used throughout computing.</p> <p><b>Photoshop design</b>– Pupils will learn how Photoshop is used to manipulate imagery.</p> <p><b>Scratch</b>– Pupils will learn how to design an interactive game.</p> <p><b>Vector Graphics</b>– Pupils will learn about how images have different</p>	<p><b>App Design</b>– Pupils will learn how to develop an APP for a new interactive game and will learn a specific programming language</p> <p><b>From Clay to Silicon</b>– Pupils will learn how sand is used to develop motherboards and integrated circuitry</p> <p><b>Python Programming</b>– Pupils</p>

		<p>formats for production.</p> <p><b>Using Binary</b>– Pupils will learn about 1 and 0 and the importance to all digital communication.</p> <p><b>Sound</b> – Pupils will learn that sound waves can be converted digitally and are used in audio production.</p>	<p>will learn a new programming language and will be developing various skills in computing.</p>
<b>Year 9</b>	<p><b>Computers - Colossus, transistors, valves, hardware and software</b>- Pupils will be learning about the first computers to present day.</p> <p><b>Cyber Security</b>–Pupils will learn the importance of security from personal computers to company security.</p> <p><b>Google Sketchup</b>–Pupils will learn how to develop 3D designs and various 3D digital tools.</p>	<p><b>Sound Project</b>–Students will be developing sound stories using Audacity</p> <p><b>HTML</b>–Students will be programming using HTML and will be designing web pages.</p> <p><b>Spreadsheets</b>– Pupils will learn how spreadsheets are used in business to create formulas and charts.</p>	<p><b>Layers of Computer Systems</b>- Learners will discover how all computer systems, regardless of form or capabilities, make use of the same components: a processor, memory, storage, input and output devices and communication components.</p> <p><b>Data Science/Introduction to ICDL</b>–Pupils will begin their route into the GCSE in ICDL and will experience the 4 different areas of learning, (Word, Spreadsheets, Presentations and Productivity.</p>

#### Key Stage 4

At Key Stage 4 Pupils can study ICDL (International Certificate in Digital Literacy) Level 2 Certificate Standard Award and ICDL Computer Essentials Level 1 Award

#### **ICDL Level 1/2 Certificate Award**

ICDL Level 2 Progression Route			
Unit 1 ICDL 6.0 L2 Word Processing MS Word 2016	Unit 2 ICDL 6.0 L2 Presentation MS PowerPoint 2016	Unit 3 ICDL 6.0 L2 Spreadsheets MS Excel 2016	Unit 4 BCS L2 Improving Productivity Scenario C MS Office 2016
External examination	External examination	External examination	External examination
25%	25%	25%	25%

<b>Unit 1 ICDL 1.0 L1 Computer Essentials / IT User Fundamentals Windows 10</b>	<b>Unit 2 ICDL 1.0 L1 Online Essentials / Using Email and Internet Edge/Outlook 2016</b>	<b>Unit 3 ICDL 5.0 L1 IT Security for Users</b>
External examination	External examination	External examination
33%	33%	33%

All assignment briefs are completed in the classroom. Pupils will have appropriate guidance (in line with ICDL assessment guidelines). The following grades are available:

<b>Qualification Grade Level 2</b>	<b>GCSE (9-1) Equivalence</b>
PASS	Equivalent to GCSE grade 4

<b>Qualification Grade Level 1</b>	<b>GCSE (9-1) Equivalence</b>
PASS	Equivalent to GCSE grade 2/3

#### **Impact:**

We encourage our children to enjoy and value the curriculum we deliver. We will constantly ask the WHY behind their learning and not just the HOW. We want learners to discuss, reflect and appreciate the impact computing has on their learning, development and well-being. Pupils will make progress towards their outcomes according to their Education, Health and Care Plans. Finding the right balance with technology is key to an effective education and a healthy life-style. Pupils will have enhance self-efficacy and purpose by supporting Pupils to identify their end goals and aspirations for the future, thereby improving mental health and well-being. We feel the way we implement computing helps children realise the need for the right balance and one they can continue to build on in their next stage of education and beyond. We encourage regular discussions between staff and Pupils to best embed and understand this. The way Pupils display, share, celebrate and publish their work will best show the impact of our curriculum. Pupils will develop resilience and the social skills required for a successful transition to further education or training. We also look for evidence through reviewing pupil's knowledge and skills digitally through tools like Seesaw and observing learning regularly. Progress of our computing curriculum is demonstrated through outcomes and the record of coverage

in the process of achieving these outcomes. At Kilgarth we view learning with computers as important as with any subject and value the impact technology has on students in and out of the school environment.