KS3 Assessment at Braunton Academy

Computing Year 7

Grade	Students at this grade will typically show the following by the end of Year 7 in Computing
Showing Mastery	• Confident in applying key principles of sequencing, selection and iteration • Confident in creating precise algorithms using appropriate syntax • Confident in applying the principles of decomposition, abstraction and basic pattern recognition • Able to identify and debug complex syntax and logic errors • Creates skilled digital content to achieve a given goal and reflect on how it might be further improved • Consistently keeps personal information private when communicating with others online • Consistently demonstrates safe practice when working online and with social media
Working at Greater Depth	• Explain the concept of a network, compare LAN, WAN, PAN and VPN and evaluate their use in different contexts. • Distinguish clearly between the Internet and the World Wide Web. • Use advanced keyboard shortcuts to improve productivity across different applications (e.g., formatting, navigation, and automation). • Organise digital workspaces efficiently, using OneDrive and cloud tools to manage version control, sharing permissions, and collaborative editing. • Design and create multimedia presentations and documents that are tailored to a specific audience, purpose, and context, using advanced formatting and design principles. • Communicate professionally via email, applying appropriate tone, structure, and etiquette, and managing attachments and CC/BCC effectively. • Demonstrate responsible online behaviour, including evaluating sources, managing digital footprints, and understanding the implications of data sharing. • Use spreadsheets to model real-world scenarios, applying formulas, functions, conditional formatting, and charts to analyse and present data meaningfully. • Design user-friendly and intuitive digital interfaces, considering layout, accessibility, and user experience principles. • Document digital processes clearly, using annotated screenshots and description of the action taken • Explain why computers use binary, and explore how binary underpins data storage and processing. • Convert between binary and denary. • Describe how text and images are encoded, including ASCII, Unicode, and pixel-based image representation. Understand the effect of colour depth and resolution on the size of a file. • Use graphic design software to create purposeful digital content, meeting specific design briefs and applying design principles. • Compare vector and bitmap images, and explain when each format is most appropriate based on resolution, scalability, and file size. • Edit paths and fills effectively, using tools to manipulate shapes, colours, and layers in vector graphics. • Write code using input/output, selection, and iteration (while loop/ for i in range), and debug independently to improve functionality. • Apply computational thinking by breaking down problems (decomposition), identifying patterns, abstracting key elements, and designing efficient solutions.
Working at Expected Standard	• Define a network and know three different types of networks. • Know that the internet and the WWW overlap and but are different • Use keyboard shortcuts • Organise work in folders on OneDrive • Create slide shows and text document suitable for their audience • Use email and follow suitable etiquette in all communications, using CC and BCC. • Adopt safe behaviours online

	• Use spreadsheet to structure data effectively, using formulas and functions (SUM, MIN, MAX, AVERAGE), and applying conditional formatting and charts to visualise outcomes. • Design intuitive layouts • Document processes using print screens • Understand why computers use binary to store data • Know that binary uses base 2 and complete simple binary to denary conversions • Understand how images and text are encoded and differentiate between colour depth and resolution. • Use a graphic design software to create images based on specific requirements • Understanding the difference between vector and bitmap/raster images • Use tools to edit a path and fill • To code using input and output, selection and iteration • To apply the principles of decomposition, abstraction and basic pattern recognition to a problem
Working Towards Expected Standard	• Say what a network is and name some types. • Know that the internet and the web are not the same. • Use basic keyboard shortcuts (e.g. copy, paste). • Save and find work in OneDrive folders. • Make simple slideshows and documents. • Send emails politely and safely. • Stay safe online and ask for help when unsure. • Enter data into a spreadsheet and use simple formulas . • Take screenshots to show what they've done. • Know that computers use binary to store data. • Recognise binary numbers and try simple conversions. • Know that computers store images and text in binary. • Use drawing software to make simple pictures. • Know the difference between vector and bitmap images. • Use basic tools to change shapes and colours. • Write simple code using inputs and outputs. • Break problems into smaller steps to help solve them.

Computing Year 8

Grade	Students at this grade will typically show the following by the end of Year 8 in Computing
Showing Mastery	• Edit images using layers and tools to suit a clear purpose and audience. The use of tools is consistently professional, and the images created are complex and efficient. • Break down coding tasks and use patterns to solve problems. Create complex images using the Turtle module • Create a basic web page using HTML, including hyperlinks and resized images. • Explain what IP addresses do and how data travels across the internet. • Know different network layouts and how they affect connections. • Explain how the internet and the World Wide Web are different. • Plan and create a smooth 2D animation using different techniques.
Working at Greater Depth	• Use advanced tools and multiple layers in image editing software to create purposeful designs that suit a specific audience and message. • Show a strong understanding of how to stay safe, respectful, and secure online, including managing privacy settings and recognising risks like scams or unsafe contact.

	• Break down complex coding tasks into smaller parts, spot patterns, and use abstraction to design efficient solutions when programming visual elements. Create simply images such as flags and flowers that are not based on quadrilaterals • Write and structure a simple web page using HTML, including headings, links, and images, with an understanding of how web pages are built. • Explain how IP addresses help devices communicate across networks and why they are essential for internet connections. • Describe how data is split into packets and sent across the internet, including how routers and smart devices (IoT) play a role in this process. • Compare different network topologies (like star, mesh, and bus) and explain how they affect performance and reliability. • Clearly explain the difference between the World Wide Web and the internet, including how they work together. • Create detailed planning documents (e.g. storyboards or timelines) to support the development of a digital animation. • Produce a smooth, well-structured 2D animation using both tweening and frame-by-frame techniques, showing attention to timing and movement.
Working at Expected Standard	• Use image editing software and use tools and layers to edit images with an awareness of purpose of audience • Exporting all images using a format suitable for its purpose • understand how use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct, and know how to report concerns • program pictures and shapes applying the principles of decomposition, abstraction and basic pattern recognition to a problem. Create images such as flags and flowers where repeated patterns may be based on quadrilaterals • Coding a simple page in HTML • Aware of the role of IP addresses. • Understand how data is transferred over the internet in packets, including the data from IoT, the role of a router. • Awareness of network topologies • Explain the difference between WWW and internet. • Create planning documents to support the creation of an animation. • Create a simple 2D animation using tweening and frame by frame techniques
Working Towards Expected Standard	• Use image editing software to change pictures using simple tools and layers. • Use technology safely and respectfully and know how to protect personal information online. • Know what to do if something online makes them feel uncomfortable. • Break problems into smaller steps when programming pictures or shapes. • Write a basic web page using simple HTML. • Know that IP addresses help computers find each other online. • Understand that data travels across the internet, including from smart devices, and that routers help send it. • Be aware that networks can be set up in different ways (topologies). • Explain how the internet and the WWW are different. • Plan an animation using simple notes or drawings. • Make a short 2D animation using basic techniques like tweening and frame-by-frame.

Computing Year 9

Grade	Students at this grade will typically show the following by the end of Year 9 in Computing
Showing Mastery	• Independently manipulate lists in Python, consistently applying methods such as appending, slicing, and reordering to solve structured problems with clarity and efficiency. • Critically assess the role and limitations of AI in education and the workplace, showing awareness of issues such as bias, misinformation, and the importance of human oversight. • Identify and explain in details the broader impacts of AI, including its economic, ethical, legal, and environmental implications, and apply this understanding to real-world scenarios. • Independently produce detailed and purposeful pre-production documents (e.g. mood boards, scripts, storyboards) that respond directly to a client brief and demonstrate clear design thinking. • Apply knowledge of colour theory to create visual identities that communicate brand values effectively and appeal to a defined audience. • Design and justify professional looking visual identity choices with confidence, showing an understanding of consistency, symbolism, and how visual elements influence perception.
Working at Greater Depth	As Year 7 and y8 plus… • Use Python to manipulate lists effectively, including appending, reordering, slicing, and applying list methods to solve structured problems. • Demonstrate a conceptual understanding of how Artificial Intelligence is developed using large language models (LLMs), including the processes of training on large datasets and generating human-like outputs. • Evaluate the role and limitations of generative AI in educational and professional contexts, considering accuracy, bias, and reliability. • Identify and explain the economic, ethical, legal, and environmental implications of AI technologies, including issues of data privacy, job automation, and sustainability. • Create detailed pre-production documents (e.g. mood boards, storyboards, scripts) in response to a client brief, justifying design decisions based on audience and purpose. • Understand the psychological and communicative impact of colour theory and geometric shapes in branding and visual identity design. • Design and justify visual identities that align with a brand's values and target audience, demonstrating an understanding of consistency, symbolism, and visual hierarchy.
Working at Expected Standard	As year 7 and y8 plus… • Manipulate strings in python (finding first letters and concatenating • Manipulate lists in Python, reordering, appending • Understand how AI is built on LLM and how generative AI is trained • Understand the use and limitation of AI in the world of education and work. • Identify the economical, ethical, legal and environmental impact of AI • Create preproduction documents based on a client brief • Understand the role of colours and shapes in visual identities • Create and support choices of visual identities

Working Towards Expected Standard	As year 7 and y8 plus… • Use Python to find letters in words and join text together. • Add items to a list in Python and change the order of the list. • Know that AI is trained using lots of data and can create new content. • Understand that AI has limits and may not always be right in school or work. • Be aware that AI can affect jobs, the environment, and how people are treated. • Make simple planning documents based on what a client needs. • Know that colours and shapes are important in logos and branding. • Make basic design choices for a visual identity and explain them.