



## Hartford Junior School Computing LTP




At HJS we use units of work from the **Teach Computing** curriculum for our main computing lessons. We also use **Project Evolve** for Online Safety lessons, to be in line with Education For A Connected World. Some Online Safety is also taught through **PSHE** lessons and during our **Safer Internet Day**.

	Year 3	Year 4	Year 5	Year 6
<b>Autumn</b>	<p><b>Understanding Technology</b> Connecting Computers: Learners will develop their understanding of digital devices, with an initial focus on inputs, processes, and outputs. They will compare digital and non-digital devices and will then be introduced to computer networks that include network infrastructure devices like routers and switches.</p> <p><b>Digital Literacy</b> Learners will be introduced to iPad practice in HJS including our acceptable use policy (AUP) and Seesaw.</p>	<p><b>Understanding Technology</b> The Internet: Learners will apply their knowledge and understanding of networks and network security. They will learn that the World Wide Web is part of the internet, and will be given opportunities to explore the World Wide Web and learn about who owns content and what they can access, add, and create. Finally, they will evaluate online content to decide how honest, accurate, or reliable it is, and understand the consequences of false information.</p>	<p><b>Understanding Technology</b> Systems and Searching: Learners will develop their understanding of computer systems and how information is transferred between systems and devices. They explain the input, output, and process aspects of a variety of different real-world systems. Learners discover how information is found on the World Wide Web, through learning how search engines work (including how they select and rank results) and what influences searching, and through comparing different search engines.</p>	<p><b>Understanding Technology</b> Communication and Collaboration: Learners will explore how data is transferred over the internet. Learners initially focus on addressing, before they move on to the structure of data packets. Learners then look at how the internet facilitates online communication and collaboration; they complete shared projects online and evaluate different methods of communication. Finally, they learn how to communicate responsibly by considering what should and should not be shared on the internet.</p>
<b>Spring</b>	<p><b>Programming - Sequence in music (Scratch)</b> Learners will explore the concept of sequencing in programming through Scratch. They begin with an introduction to the programming environment. They will be introduced to a selection of motion, sound, and event blocks which they will use to create their own programs, featuring sequences. The final project is to make a representation of a piano. The unit will focus on all aspects of sequences and ensure that knowledge is built in a structured manner.</p> <p><b>Safer Internet Day</b></p>	<p><b>Programming – Repetition in Games (Scratch)</b> Learners will look at repetition and loops within programming. Pupils will create programs by planning, modifying, and testing commands to create shapes and patterns. They will use Logo, a text-based programming language.</p> <p><b>Safer Internet Day</b></p>	<p><b>Programming - Data handling (Micro:bit)</b> Students will learn about data through a variety of unplugged activities. They write and evaluate algorithms and programs using selection and repetition to use the micro:bit as a temperature recorder, an automatic warning system and a digital assistant. Learners will use physical micro:bits as well as the simulator.</p> <p><b>Safer Internet Day</b></p>	<p><b>Programming – Sensing (Micro:bit)</b> Learners will bring together elements of programming taught across Year 3-5 utilising the micro:bit. The unit begins with a simple program for pupils to build in and test within the new programming environment, before transferring it to their micro:bit. Pupils then take on three new projects, each adding more depth.</p> <p><b>Safer Internet Day</b></p>
<b>Summer</b>	<p><b>Online safety</b> <b>Self-image and identity</b> Learners will explain how people can represent themselves in different ways online.</p> <p><b>Online relationships</b> Learners will explain the importance of giving/gaining permission before sharing things online; how the principles of sharing online is the same as sharing offline.</p> <p><b>Online reputation</b> Learners will give examples of what anyone may or may not be willing to share about themselves online. Learners will understand and explain the need to be careful before sharing anything personal.</p>	<p><b>Online safety</b> <b>Self-image and identity</b> Learners will describe positive ways to interact with others online and understand how this will positively impact on how others perceive them.</p> <p><b>Online relationships</b> Learners will describe strategies for safe and fun experiences in a range of online social environments (e.g. livestreaming, gaming platforms).</p> <p><b>Online reputation</b> Learners will explain ways that some of the information about anyone online could have been created, copied or shared by others.</p>	<p><b>Online safety</b> <b>Self-image and identity</b> To demonstrate how to make responsible choices about having an online identity.</p> <p><b>Online relationships</b> To describe some of the ways people may be involved in online communities and describe how they might collaborate constructively with others and make positive contributions. (e.g. gaming communities or social media groups).</p> <p><b>Online reputation/bullying</b> To describe how what one person perceives as playful joking and teasing (including 'banter') might be experienced by others as bullying.</p>	<p><b>Online safety</b> <b>Self-image and identity</b> To describe issues online that could make anyone feel sad, worried, uncomfortable or frightened. I can give examples of how to get help, both on and offline. I can explain the importance of asking until I get the help needed.</p> <p><b>Online relationships</b> To understand and explain that taking or sharing inappropriate images of someone (e.g. embarrassing images), even if they say it is okay, may have an impact for the sharer and others; and who can help if someone is worried about this.</p>

	<p><b>Managing Online Information</b> Learners will explain the difference between a 'belief', an 'opinion' and a 'fact' and can give examples of how and where they might be shared online, e.g. in videos, memes, posts, news stories etc.</p> <p><b>Health, Well-being, and Lifestyle</b> Learners will explain why some online activities have age restrictions, why it is important to follow them and know who I can talk to if others pressure me to watch or do something online that makes me feel uncomfortable e.g. age restricted gaming or websites.</p> <p><b>Privacy and Security</b> Learners will describe how connected devices can collect and share anyone's information with others.</p>	<p><b>Managing Online Information</b> Learners will analyse information to make a judgement about probable accuracy and I understand why it is important to make my own decisions regarding content and that my decisions are respected by others.</p> <p><b>Health, Well-being and Lifestyle</b> Learners will identify times or situations when someone may need to limit the amount of time they use technology e.g. I can suggest strategies to help with limiting this time.</p> <p><b>Privacy and Security</b> Learners will describe how some online services may seek consent to store information about me; I know how to respond appropriately and who I can ask if I am not sure.</p>	<p><b>Managing Online Information</b> To explain what is meant by the term 'stereotype', how 'stereotypes' are amplified and reinforced online, and why accepting 'stereotypes' may influence how people think about others. <b>Health, Well-being and Lifestyle</b> To describe some strategies, tips or advice to promote health and wellbeing with regards to technology.</p> <p><b>Privacy and Security</b> To explain how many free apps or services may read and share private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others.</p>	<p><b>Online reputation/bullying</b> To describe how to capture bullying content as evidence to share with others who can help me.</p> <p><b>Health, Well-being and Lifestyle</b> To recognise and discuss the pressures that technology can place on someone and how / when they could manage this. To recognise features of persuasive design and how they are used to keep users engaged (current and future use). To assess and action different strategies to limit the impact of technology on health (e.g. night-shift mode, regular breaks, correct posture, sleep, diet and exercise).</p> <p><b>Privacy and Security</b> To describe how and why people should keep their software and apps up to date, e.g. auto updates.</p> <p><b>Copyright and ownership</b> To demonstrate how to make references to and acknowledge sources I have used from the internet.</p>
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**Additional units of work available:**

- Additional units from the Teach Computing curriculum
- Project Evolve – for online safety, CAM online safety curriculum  [Online Safety Curriculum - Objectives.docx](#)
- Digital literacy will be taught across the year in KS2, Seesaw, iMovie (photo and video editing), GarageBand (sound editing), iMotion (photo and video editing), desktop publishing (pages)

**Subject content Key stage 2 Pupils should be taught to:**

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration
- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.