

Chadsgrove Curriculum Long Term Planning:

Computing

Curriculum Intent

The Long Term Plan for Computing offers a structured sequence of lessons, helping teachers to ensure that they have covered the skills required to meet the aims of the National Curriculum and accredited courses. The content allows for a broad, deep understanding of computing and how it links to pupils' lives. It offers a range of opportunities for consolidation, challenge and variety. This allows pupils to apply the fundamental principles and concepts of computer science. They develop analytical problem-solving skills and learn to evaluate and apply information technology. It also enables them to become responsible, competent, confident and creative users of information technology.

In Key Stages 1-3, the National Curriculum is followed incorporating a thematic approach. Teachers will use National Curriculum Learning Outcomes and further differentiate these to create learning opportunities, based upon individual pupils' needs, as detailed in Medium Term Plans.

For pupils on the Semi-Formal Curriculum Pathway:

In the Semi-Formal Pathway, the focus is on developing the use of algorithms, programming and how technology can be used safely and purposefully.

For pupils on the Formal Curriculum Pathway:

In the Formal Pathway, lessons still focus on algorithms, programming and coding but in a more complex way and for different purposes. Pupils will also develop their knowledge of computer networks, internet services and the safe and purposeful use of the internet and technology. Skills learnt through both pathways are used to support data presentation.

In Key Stage 4, pupils follow WJEC Entry Level Pathways units in ICT at Entry Level 2.

Curriculum Implementation

Each lesson contains revision, analysis and problem-solving. Through the sequence of lessons, we intend to inspire pupils to develop a love of the digital world and see its place in their future. Cross-curricular links are also important in supporting other areas of learning. Lessons help pupils to build on prior knowledge at the same time as introducing new skills and challenges.

All pupils have at least one Computing lesson per week focused on the curriculum detailed below.

In Key Stages 3-4, each term contains focused lessons and four Equality and Diversity lessons for pupils to demonstrate skills learned so far and widen their knowledge of equality and diversity.



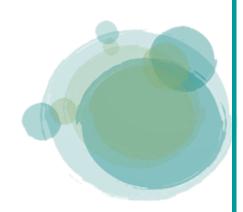
5LS	<u>Autumn</u>	<u>Spring</u>	<u>Summer</u>
2024-2025	 Digital Research Key Skills Recognise technology that is used at home and in school Know that ICT sources e.g. the learning platform and Internet can be used to find things out. Know that information can be in different forms, e.g. video, pictures and sound, as well as text. Cross-Curricular Links Wonderful World 	 Use a keyboard in play writing Move objects on a screen. Input commands using a mouse to control a cursor and use the left click to select options OR use finger control to interact with a tablet (double tap, swipe) 	conferencing and webcam activities with adult help <u>Cross-Curricular Links</u> Journeys
2025-2026	Online Safety <u>Key Skills</u> Be able to tell an adult when something worrying or unexpected happens Be kind to friends. Cross-Curricular Links People and Places	 Choose different painting tools to create effect Use a painting app and explore the paint and brush tools Use a stamp tool Fill sections using fill tool Take a photograph With support, take moving images with a video camera With support, play back captured still or moving images, becoming familiar with the control buttons, e.g., using play, stop and pause. Examine objects using a visualiser or microscope 	Key Skills

2026-2027	 Data Handling – Making Decisions Begin to sort, classify or group various objects progressing from practical activities to the use of ICT, e.g., practically sorting fruit into colours, types or shapes, and then onscreen. Make choices about the buttons/icons to press, touch or click on when using simple software/hardware. With support, collect information by taking photographs or collecting objects. 	 Modelling, Simulation and programming Make choices about the buttons and icons pressed, touched or clicked on Begin to understand that computers can represent real or imaginary situations Be aware that different choices made using a program on the computer can produce different outcomes Cross-Curricular Links Let's Build 	 Control and Monitoring Key Skills Respond to simple instructions to press a sequence of buttons on a programmable robot. Use a variety of electronic toys in play situations, e.g., dance mats, Bee- Bots, and remote control toys, Explore simple games on screen using appropriate access devices Be aware that the computer keyboard can be used to control objects on screen Manage a device by correctly closing websites or apps and safely turning on and off
	<u>Cross-Curricular Links</u> All About Me		 Play on a touch screen game and use computers/keyboards/mo use in role play <u>Cross-Curricular Links</u> Out and About
National Curriculum KS2	 design, write and debug p use sequence, selection, a use logical reasoning understand computer network use search technologies effect, use and combine a use technology safely 	nd repetition in programs works including the internet ffectively	



6LS	Autumn	Spring	<u>Summer</u>
2024-2025	Text and Multimedia	Images, Video and Animation	Online Safety
	 Key Skills Type letters with increasing confidence using a keyboard and tablet. Print out work with support Move and resize images with my fingers or mouse. Cross-Curricular Links New Adventures	 Key Skills Choose different painting tools to create effect Use a painting app and explore the paint and brush tools Use a stamp tool Fill sections using fill tool Take a photograph With support, take moving images with a video camera With support, play back captured still or moving images, becoming familiar with the control buttons, e.g., using play, stop and pause. Examine objects using a visualiser or microscope 	 Key Skills Explore onscreen activities that mimic real life Begin to understand school rules for responsible Internet use Cross-Curricular Links Fantasy and Magical Worlds
2025-2026	 Talking Books Key Skills Make decisions about the stories and what is to be included Take photographs using a digital camera Record sounds using the computer sound recorder with help Assemble pictures, sounds and clip art to create pages with accompanying text, where appropriate 	 instructions to operate a device requiring multiple instructions Explore 'what happens if' Explore toys that simulate control devices with the intention of finding out how they work e.g. traffic light, till, microwave, scanner 	 Making Pictures Key Skills Experience creating representative drawings using an appropriate access device Widen their experience of painting tools Have opportunities to communicate about pictures and compare them to real life Experience making decisions about when their work is complete and print it out Cross-Curricular Links Water

Digital Research	Images, Video and Animation	Communicating and
 Digital Research Key Skills Understand what a computer is and the different uses of computers i.e. learning, communicating, finding information, playing games etc. Begin to use icon based hyperlinks and navigation buttons Select and use technology for particular purposes. 	 Key Skills Be aware that still objects can be animated using the computer Take a photograph and use it in an app Change tools such as brush size and colour Review experiences by observing recordings of play, visits and activities Interact and explore their 	 Collaborating Key Skills Be aware of the use of different forms of electronic communication via teacher-led activities and free play, e.g. sending an email to another class. Be aware that there is a range of ICT tools for communicating, e.g., webcams, text and email Cross-Curricular Links Around the World



2027-2028	Data Handling – Making Decisions	Modelling, Simulation and programming	Music and Sound Key Skills
	 Key Skills Sort physical objects, take a picture and discuss what I have done. With support, produce simple pictograms Identify a chart. Present simple data on a digital device. Cross-Curricular Links Our bodies and minds	 Key Skills Be aware that computers can make imaginary things happen on-screen, which may not happen in everyday life Use simple software to make something happen Use software to represent real life situations/environments Cross-Curricular Links Clever Construction	 Choose pre-recorded sounds in a piece of software Be aware that a range of ICT software and equipment can be used to select, control and change sounds Record sounds with different resources Record sounds/voices in storytelling and explanations Cross-Curricular Links Pirates
National Curriculum KS2	 design, write and debug pro- use sequence, selection, and use logical reasoning understand computer network use search technologies efforts select, use and combine a vortice use technology safely 	od repetition in programs vorks including the internet fectively	1



8LS	Autumn	<u>Spring</u>	<u>Summer</u>
2024-2025	Technology Around Us	Sound and Motion	Presentation Skills
	 <u>Key Skills</u> Recognise technology outside of the classroom Describe what technology they use in their lives Know that technology changes over time Name some people who have helped shape information technology today With support, think of ways in which information technology may change in the future Identify examples of technology used in different settings Describe how they use technology in their lives and explain the benefits of doing so 	 Key Skills Use software to record sounds Change sounds recorded Save, retrieve and organise work Use key vocabulary to demonstrate knowledge and understanding in this strand: commands, add sound Cross-Curricular Links Space and the Solar System	 Key Skills Insert slides, add and type in a text box Save files in an organised folder structure Search for files on the computer Set windows side by side Format text boxes and images Reorder slides and present their presentation Create folders Print files Add images Format text and text boxes
2025-2026	Painting	Word Processing	Using The Internet
	 Key Skills Paint with different colours Paint with different brushes Create shapes Format text Resize text and images Save their paintings in their folder Fill an area with a colour Undo and redo Add text 	 Key Skills Type with two hands Use shift, space and enter correctly Use undo and redo Make text bold, italic or underline Have some knowledge of the location of letters and symbols on the keyboard Select text in different ways Save their work in their folder 	 Key Skills Search using the words "for kids" Follow a web link Locate their own blog Understand how to blog safely and responsibly Recognise common websites to which search results are linked Upload photos to a blog Identify search results that will give some useful information Know where to find the address of a link

	<u>Cross-Curricular Links</u> Marvellous Me	 Edit text using backspace, delete and the arrow keys Format the font. Select single words Cross-Curricular Links Rise of the Robots 	 Log in and post a blog or comments <u>Cross-Curricular Links</u> Water
2026-2027	Computer Skills	Computer Art	Online Safety
	Key Skills	Key Skills	Key Skills
	 Click and drag with a mouse or trackpad Switch on and shutdown a computer Launch an application by double clicking it Confidently double click with a mouse or trackpad Save work Cross-Curricular Links Our Environment	 Access an appropriate program for achieving a specific task; Switch between program tools to produce different techniques; Alter the formatting of a 	 Open a web browser Recall some of the SMART rules for Internet safety Know who to tell if someone online asks for personal information; Apply their knowledge of online safety to help others make safe choices Make links between the online and offline world Recognise which personal information they should keep safe from strangers Cross-Curricular Links Around the World
		Jungle Beat	
2027-2028	Programming with Scratch Jnr	Programming Toys	Using and Applying
	Key Skills	<u>Key Skills</u>	Key Skills
	 Open the ScratchJr app and start a new project Add new characters and backgrounds Use blocks for movement in different directions Create short sets of sequenced instructions Use a repeat block for a section of instructions and specified number of times Predict the behaviour of a character, based on a sequence of instructions 	 Create step-by-step instructions using pictures Write and follow detailed step-by-step instructions Direct a Bee-Bot (or similar programmable toy) to a toy Program a Bee-Bot (or similar programmable toy), one instruction at a time, using the arrow buttons See how a product changes when they change the instructions 	 Turn on a computer and open an application Type letters and symbols, including use of the shift key Format text in different ways (bold, italic, underline) Draw different shapes using paint software Use a brush in a paint application and change the size and colour Move, resize, minimise and restore windows

	 Edit the colours and other features of characters or sprites; Create longer sequences of more complex instructions Use different end blocks, including repeat forever Change the size of characters to grow or shrink Hide and show characters with an instruction block Program two or more characters with instructions at the same time Cross-Curricular Links Our Bodies and Minds 	 Evaluate and improve their sequence (debug) Say what an algorithm is Say why it is important to be precise when writing an algorithm Program a Bee-Bot (or similar programmable toy) using the arrow buttons Start their programming sequence again if they need to <u>Cross-Curricular Links</u> Clever Construction 	 Select text and change the size, type or colour Use Undo and Redo effectively Edit text using the arrow keys and delete or backspace buttons Create a particular image using shapes or brush tools Click, double-click and drag objects; Save and open files Position shapes correctly Cross-Curricular Links Pirates
National Curriculum KS3	 undertake creative project applications 	orithms ning languages n logic	



9US	<u>Autumn</u>	Spring	<u>Summer</u>
2024-2025	 E Safety Understand what the internet is and how people use it. Understand what personal information is and why we keep personal information private. Why do websites want personal information. Identify when and where to go for help when concerned. 	 Mouse and Keyboard Skills Move the mouse or trackpad and left click to select an object. Drag and drop with mouse or trackpad to move objects around the screen. Find letters or numbers on a keyboard. Begin touch typing with home row keys. 	 Digital Art Change the colour of individual pixels to accurately re-create basic artwork. Make changes where required. Change the colour of individual pixels to accurately re-create detailed artwork. Use zoom controls to help fill small shapes.
	E&D Lessons September – Yom Kippur October – Navaratri November – Birthday of Guru Nanak December – Christmas E-Safety must continue to be embedded throughout	E&D Lessons January – Lohri – Maghi February – Chinese New Year March – Holi March – International Women's Day (Women in the IT industry) E-Safety must continue to be embedded throughout	<u>E&D Lessons</u> April – Passover May – Vesak June – Corpus Christi July – Eid-UI-Adha E-Safety must continue to be embedded throughout
2025-2026	 Design Change the colour and pattern of elements. Position and rotate objects on a design. Position objects in relation to each other. Resize, rotate, flip and arrange objects behind/in front of each other. 	 Text and Images Change the background colour of a page. Add, resize and position images (pictures) on a page. Type and position text on a page, if possible using capital letters and punctuation. Label pictures with text. Use word-banks for writing sentences about pictures. 	 Comic Creation Add, resize and organise colour or picture backgrounds. Add, resize, organise characters/object to different panels. Add narration using text and direct speech using speech bubbles.

	E&D Lessons	E&D Lessons	E&D Lessons
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2026-2027	 Music Creation Create a rhythm using a pattern of beats. Create digital sounds using patterns and shapes. Create a simple melody using patterns and adjust tempo. 	 Data Handling Understand what data is and collect it as a tally. Use software to label a pictogram and add data to each column. Edit a table with correct titles and numbers. Use software to create a bar chart/pie chart/line chart suitable for the data. Interpret a pictogram/bar chart/line chart. 	 Programming Place instructions into the correct order (sequence) to make something work. Use direction arrows to move an on-screen object (character/sprite) to achieve an objective. Predict a route and sequence direction commands (algorithm) to achieve an objective. Correct the errors if necessary (debug). Predict a route and sequence distance commands to program an on-screen object to achieve an objective. Predict and sequence movement and pen commands to program the drawing of different 2D shapes. Sequence code blocks, including movements and execute (start program) blocks to write a program to achieve an objective.

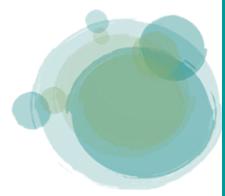
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National Curriculum KS3	 design, use and evaluate computational abstractions understand several key algorithms use two or more programming languages understand simple Boolean logic hardware and software components understand how instructions are stored and executed undertake creative projects that involve selecting, using, and combining multiple applications create, re-use, revise and re-purpose digital artefacts for a given audience use technology safely 		

11US	Autumn	Spring	<u>Summer</u>
2024-2025	 E Safety Understand what to do if something upsets you online. Understand why and how people can be nasty online. Describe the term 'sharing online' and why we need to get permission to share photos and videos of other people. Understand why people pretend to be someone else online. Understand why we only talk to people we know in the real world, when online. Understand why we should not always trust what we read online and how to check Understand the importance of being kind in the real world and also online. 	 Comic Creation Add, resize and organise colour or picture backgrounds. Add, resize, organise characters/objects to different panels. Add narration using text and direct speech using speech bubbles. Save comic with name and title. Add audio recordings (optional). 	 Storyboards Add and edit backgrounds. Add and edit characters, including changing posture, expression and clothing. Add narration and speech bubbles, including formatting text. Duplicate objects to match scenes. Search for objects to use.

	E&D Lessons	E&D Lessons	E&D Lessons
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2025-2026	 Digital Art Use various lines and fill tools plus copy/paste and rotation to create pattern effects. Use shapes, fill, copy/paste, zoom and flip to create reflective symmetry effects. Use stamps, copy/paste, layers and multiple frames to create animated GIF computer game graphics. 		 Music Creation Create ascending and descending scales. Add chords evenly across the scales. Add arpeggios and melodies. Add a steady and even rhythm. Use sampled sounds to create an effective mix. Build beats, melody (tones) and effects.
	E&D Lessons September – Yom Kippur October – Navaratri November – Birthday of Guru Nanak December – Christmas E-Safety must continue to be embedded throughout	<u>E&D Lessons</u> January – Lohri – Maghi February – Chinese New Year March – Holi March – International Women's Day (Women in the IT industry) E-Safety must continue to be embedded throughout	E&D Lessons April – Passover May – Vesak June – Corpus Christi July – Eid-Ul-Adha E-Safety must continue to be embedded throughout



2026-2027	Programming in Kodu	Document Editing and Creation	3D Design
2026-2027	 Create a 3D place using various design tools Write a program to control a character using inputs Write a program with conditions to create an if statement (If the character touches an object it will disappear) Add a multi-player aspect Write a program with variables (scoring system) Program operators (equals) to achieve a score and win a game. 	 Format text for a purpose. Add bullet points to make lists. Experiment with keyboard shortcuts. 	 Understand and use 3D space on a grid. Design cities/towns for a purpose and to a budget. Re-create or design familiar 3D models using cubes, such as tables and chairs. Use chisel tool to improve and adapt models. Colour individual blocks or whole models.
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12US	<u>Autumn</u>	Spring	<u>Summer</u>
2024- 2025	 WJEC: Desktop Publishing Use appropriate designs and page layouts for a publication Input text and other information into a publication Use desktop publishing software techniques to edit and format a publication 	 WJEC: Using Word Processing Software Enter, edit and combine text and other information accurately within word processing documents. Use word processing software tools to structure information, format and present documents. 	ICT Project Pupils will select a project based on one of the units studied in the autumn or spring term. • apply key concepts from the chosen unit to develop a comprehensive ICT project • showcase their understanding and practical skills
	<u>E&D Lessons</u> September – Yom Kippur October – Navaratri November – Birthday of Guru Nanak December – Christmas E-Safety must continue to be embedded throughout	<u>E&D Lessons</u> January – Lohri – Maghi February – Chinese New Year March – Holi March – International Women's Day (Women in the IT industry) E-Safety must continue to be embedded throughout	<u>E&D Lessons</u> April – Passover May – Vesak June – Corpus Christi July – Eid-UI-Adha E-Safety must continue to be embedded throughout
2025- 2026	 WJEC: Using Email Use email software tools and techniques to compose and send messages. Manage incoming email effectively. 	 WJEC: Presentation Software Input and combine text and other information within presentation slides Use presentation software tools to structure, edit and format slides Prepare slides for presentation 	ICT Project Pupils will select a project based on one of the units studied in the autumn or spring term. • apply key concepts from the chosen unit to develop a comprehensive ICT project • showcase their understanding and practical skills

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2026- 2027	E-Safety must continue to be embedded throughout WJEC: Online Basics Use an online IT system to meet needs Search for and use internet-based information Use email software tools and techniques to compose and send messages.	E-Safety must continue to be embedded throughout WJEC: Audio and Video Software • Use audio and/or video hardware and software to capture sequences • Use audio and/or video hardware and software tools to edit sequences • Play and present audio and/or video sequences	ICT Project Pupils will select a project based on one of the units studied in the autumn or spring term. • apply key concepts from the chosen unit to develop a comprehensive ICT project • showcase their understanding and practical skills
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Curriculum Impact

Learning in Computing will be enjoyed across the school. Teachers will have high expectations and quality evidence will be presented in a variety of forms. Pupils will use digital and technological vocabulary accurately, alongside a progression in their technical skills. They will be confident in using a range of hardware and software and will produce high-quality purposeful products. Pupils will see the digital world as part of their world, extending beyond school, and understand that they have choices to make. They will be confident and respectful digital citizens going on to lead happy and healthy digital lives.

Assessment is conducted via SOLAR, our digital assessment tool, utilising Chadsgrove P Steps for classes 5LS, 6LS, 8LS, 9US, and 11US. This structured approach ensures that each pupil's progress is tracked and evaluated against tailored educational milestones. All data from SOLAR is then entered termly on to a whole school spreadsheet. From there it can be seen how much progress pupils are making and interventions can be put into place if pupils are not making the progress they are expected to. Meanwhile, class 12US follows an accredited WJEC course and will be assessed according to the specific criteria set out by WJEC, ensuring that pupils meet the necessary qualifications and learning objectives.

Pupils will also be working on individual personal targets (relating to their EHCP outcomes). Pupils' IEP targets relevant to their Computing development (taken from their EHCPs) are clearly linked to the pupils' work and this is detailed in teachers' Medium Term Plans. Pupils' targets are regularly reviewed and monitored to ensure continued progression of both knowledge and skills.

Evidence of impact will be found in digital work folders, which will demonstrate pupil progress through marking and annotation from teachers and annotated photographs of children whilst completing activities (if appropriate).

