

Our **Hawridge & Cholesbury** curriculum provides opportunities for our children to be;

Fascinated

Rounded

Eager to make a difference

Spiritual

Hold high aspirations



Learning through nature



Active learning



HAWRIDGE & CHOLESBURY CHURCH OF ENGLAND SCHOOL

Computing Long Term Overview

| Year Group | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
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| W | N/A | | | | | |
| Year 1 | Computing systems and networks – technology around us <ul style="list-style-type: none"> • Technology in our classroom • Using technology • Developing mouse skills • Using a keyboard • Developing keyboard skills • Using a keyboard responsibly | Creating media – digital painting <ul style="list-style-type: none"> • How can we paint using computers? • Using shapes and lines • Making careful choices • Why did I choose that? • Painting all by myself • Comparing computer art and painting | Moving a robot <ul style="list-style-type: none"> • Buttons • Directions • Forwards and backwards • Four directions • Getting there • Routes | Grouping data <ul style="list-style-type: none"> • Label and match • Group and count • Describe an object • Making different groups • Comparing groups • Answering questions | Creating media – digital writing <ul style="list-style-type: none"> • Exploring the keyboard • Adding and removing text • Exploring the toolbar • Making changes to text • Explaining my choices • Pencil or keyboard | Programming animations <ul style="list-style-type: none"> • Comparing tools • Joining blocks • Make a change • Adding sprites • Project design • Following my design |

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| <p>Year 2</p> | <p>Computing systems and networks – IT around us</p> <ul style="list-style-type: none"> • What is IT? • IT in school • IT in the world • The benefits of IT • Using IT safely • Using IT in different ways <p>Curriculum flashback – Year 1 – Computing systems and networks</p> | <p>Creating media – digital photography</p> <ul style="list-style-type: none"> • Taking photographs • Landscape or portrait • What makes a good photograph • Lighting • Effects • Is it real? <p>Curriculum flashback – Year 1 – Creating media</p> | <p>Robot algorithms</p> <ul style="list-style-type: none"> • Giving instructions • Same but different • Making predictions • Mats and routes • Algorithm design • Debugging <p>Curriculum flashback – Year 1 – Moving a robot</p> | <p>Pictograms</p> <ul style="list-style-type: none"> • Counting and comparing • Enter the data • Creating pictograms • What is an attribute? • Comparing people • Presenting information | <p>Digital music</p> <ul style="list-style-type: none"> • How music makes us feel • Rhythms and patterns • How music can be used • Notes and tempo • Creating digital music • Reviewing and editing music | <p>Programming quizzes</p> <ul style="list-style-type: none"> • ScratchJr recap • Outcomes • Using a design • Changing a design • Designing and creating a program • Evaluating |
| <p>Year 3</p> | <p>Computing systems and networks – Connecting computers</p> <ul style="list-style-type: none"> • How does a digital device work? • What parts make up a digital device • How do digital devices help us • How am I connected • How are computers connected • What does our school network look like | <p>Creating media – Stop-frame animation</p> <ul style="list-style-type: none"> • Can a picture move? • Frame by frame • Whats the story? • Picture perfect • Evaluate and make it great • Lights, camera, action! <p>Curriculum flashback – Year 1, 2 – Creating media</p> | <p>Sequencing sounds</p> <ul style="list-style-type: none"> • Introduction to scratch • Programming sprites • Sequences • Ordering commands • Looking good • Making an instrument | <p>Branching databases</p> <ul style="list-style-type: none"> • Yes or no questions • Making groups • Creating a branching database • Structuring a branching database • Using a branching database • Two ways of presenting information <p>Curriculum flashback – Year 1 – Grouping data</p> | <p>Desktop publishing</p> <ul style="list-style-type: none"> • Words and pictures • Can you edit it? • Great template! • Can you add content? • Lay it out • Why desktop publishing? | <p>Events and actions in programs</p> <ul style="list-style-type: none"> • Moving a sprite • Maze movement • Drawing lines • Adding features • Debugging movement • Making a project |

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| | Curriculum flashback – Year 1 & 2 – Computing systems and networks | | | | | |
| Year 4 | Computing systems and networks – The internet <ul style="list-style-type: none"> Connecting networks What is the internet made of? Sharing information What is a website? Who owns the web? Can I believe what I read? Curriculum flashback – Year 1, 2, 3 – Computing systems and networks | Audio production <ul style="list-style-type: none"> Digital recording Recording sounds Creating a podcast Editing digital recordings Combining audios Evaluating podcasts Curriculum flashback – Year 3 – Sequencing sounds | Repetition in shapes <ul style="list-style-type: none"> Programming a screen turtle Programming letters Patters and repeats Using loops to create shapes Breaking things down Creating a program | Data logging <ul style="list-style-type: none"> Answering questions Data collection Logging Analysing date Data for answers Answering my question Curriculum flashback – Year 1 – Grouping data | Photo editing <ul style="list-style-type: none"> Changing digital images Changing the composition of images Changing images for different uses Retouching images Fake images Making and evaluating a publication | Repetition in games <ul style="list-style-type: none"> Using loops to create shapes Different loops Animate your name Modifying a game Designing a game Creating our games |
| Year 5 | Computing systems and networks – Systems and searching <ul style="list-style-type: none"> Systems Computer systems and us Searching the web Selecting search | Video production <ul style="list-style-type: none"> What is video Filming techniques Using a storyboard Planning a video Importing and editing video | Selection in physical computing <ul style="list-style-type: none"> Connecting crumbles Combining output components Controlling with conditions | Flat-file databases <ul style="list-style-type: none"> Creating a paper based database Computer databases Using a database Using search tools Comparing data | Introduction to vector graphics <ul style="list-style-type: none"> The drawing tools Creating images Making effective drawings Layers and objects | Selection in quizzes <ul style="list-style-type: none"> Exploring conditions Selecting outcomes Asking questions Planning a quiz |

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| | <ul style="list-style-type: none"> • results • How search results are ranked • How are searches influenced <p>Curriculum flashback – Year 1, 2, 3, 4 – Computing systems and networks</p> | <ul style="list-style-type: none"> • Video evaluation | <ul style="list-style-type: none"> • Starting with selection • Drawing designs • Writing and testing algorithms | <p>visually</p> <ul style="list-style-type: none"> • Databases in real life <p>Curriculum flashback – Year 3, 4 – Databases/data logging</p> | <ul style="list-style-type: none"> • Manipulating objects • Create a vector drawing | <ul style="list-style-type: none"> • Testing a quiz • Evaluating a quiz <p>Curriculum flashback – Year 2 – Programming quizzes</p> |
| Year 6 | <p>Computing systems and networks – communication and collaboration</p> <ul style="list-style-type: none"> • Internet addresses • Data packets • Working together • Shared working • How we communicate • Communicating responsibility <p>Curriculum flashback – Year 1, 2, 3, 4, 5 – Computing systems and networks</p> | <p>Creating media – Web page creation</p> <ul style="list-style-type: none"> • What makes a good website • How would you layout your web page • Copyright or CopyWRONG? • How does it look? • Follow the breadcrumbs • Think before you link <p>Curriculum flashback – Year 1, 2, 3 – Creating media</p> | <p>Programming A – Variables in games</p> <ul style="list-style-type: none"> • Introducing variables • Variables in programming • Improving a game • Designing a game • Design to code • Improving and sharing | <p>Data and information – Introduction to spreadsheets</p> <ul style="list-style-type: none"> • Collecting data • Formatting a spreadsheet • Whats the formula? • Calculate and duplicate • Event planning • Presenting data <p>Curriculum flashback – Year 1, 3, 4 – Grouping data, databases/data logging</p> | <p>3D modelling</p> <ul style="list-style-type: none"> • Introduction to 3D modelling • Modifying 3D objects • Make your own name badge • Making a desk tidy • Planning a 3D model • Make your own 3D model | <p>Programming B - Sensing movement</p> <ul style="list-style-type: none"> • The micro:bit • Go with the flow • Sensing inputs • Finding your way • Designing a step counter • Making a step counter <p>Curriculum flashback - Year 3 – Events and actions in programming</p> |