



|  | | LTP for KS3 computing | |
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| | | Y7/Y8 (Cycle A) | Y9 |
| Autumn 1 | Key area of understanding | Computing systems and networks – Connecting computers | Computing systems and networks - Systems and searching |
| | Knowledge & skills development | <ul style="list-style-type: none"> 1 How does a digital device work? 2 What parts make up a digital device? 3 How do digital devices help us? 4 How am I connected? 5 How are computers connected? 6 What does our school network look like? | <ul style="list-style-type: none"> Systems Computer systems and us Searching the web Selecting search results How search results are ranked How are searches influenced? |
| Autumn 2 | Key area of understanding | Creating media - Stop-frame animation | Creating media - Video production |
| | Knowledge & skills development | <ul style="list-style-type: none"> Can a picture move? Frame by frame What's the story? Picture perfect Evaluate and make it great! Lights, camera, action! | <ul style="list-style-type: none"> What is video? Filming techniques Using a storyboard Planning a video Importing and editing video Video evaluation |
| Spring 1 | Key area of understanding | Programming A - Sequencing sounds | Programming A – Selection in physical computing |
| | Knowledge & skills development | <ul style="list-style-type: none"> 1 Introduction to Scratch 2 Programming sprites 3 Sequences 4 Ordering commands 5 Looking good 6 Making an instrument | <ul style="list-style-type: none"> 1 Connecting Crumbles 2 Combining output components 3 Controlling with conditions 4 Starting with selection 5 Drawing designs 6 Writing and testing algorithms |
| Spring 2 | Key area of understanding | Data and information – Branching databases | Data and information – Flat-file databases |
| | Knowledge & skills development | <ul style="list-style-type: none"> 1 Yes or no questions 2 Making groups 3 Creating a branching database 4 Structuring a branching database 5 Planning a branching database 6 Making a dinosaur identifier | <ul style="list-style-type: none"> Creating a paper-based database Computer databases Using a database Using search tools Comparing data visually Databases in real life |

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| Summer 1 | Key area of understanding | Creating media – Desktop publishing | Creating media – Introduction to vector graphics |
| | Knowledge & skills development | <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? | <ul style="list-style-type: none"> • 1 The drawing tools • 2 Creating images • 3 Making effective drawings • 4 Layers and objects • 5 Manipulating objects • 6 Create a vector drawing |
| Summer 2 | Key area of understanding | Programming B - Events and actions in programs | Programming B – Selection in quizzes |
| | Knowledge & skills development | <ul style="list-style-type: none"> • 1 Moving a sprite • 2 Maze movement • 3 Drawing lines • 4 Adding features • 5 Debugging movement • 6 Making a project | <ul style="list-style-type: none"> • Exploring conditions • Selecting outcomes • Asking questions • Designing a quiz • Testing a quiz • Evaluating a quiz |

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|  | | LTP for KS4 computing | |
| | | Y10 | Y11 |
| Autumn 1 | Key area of understanding | Computing systems and networks - Communication and collaboration | Clear messaging in digital media |
| | Knowledge & skills development | <ul style="list-style-type: none"> • Internet addresses • Data packets • Working together • Shared working • How we communicate • Communicating responsibly | <ul style="list-style-type: none"> • Get the message across • Poster making • Brand • Creating a brand • Adding content • Presenting |

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| Autumn 2 | Key area of understanding | Creating media – Web page creation | Networks from semaphores to the Internet |
| | Knowledge & skills development | <ul style="list-style-type: none"> • What makes a good website? • How would you lay out your web page? • Copyright or copyWRONG? • How does it look? • Follow the breadcrumbs • Think before you link! | <ul style="list-style-type: none"> • Computer networks and protocols • Networking hardware • Wired and wireless networks • The internet • Internet services • The World Wide Web |
| Spring 1 | Key area of understanding | Programming A – Variables in games | Programming essentials in Scratch – part I |
| | Knowledge & skills development | <ul style="list-style-type: none"> • Introducing variables • Variables in programming • Improving a game • Designing a game • Design to code • Improving and sharing | <ul style="list-style-type: none"> • Introduction to programming and sequencing • Sequence and variables • Selection • Operators • Count-controlled iteration • Problem-solving |
| Spring 2 | Key area of understanding | Data and information - Introduction to Spreadsheets | Modelling data using spreadsheets |
| | Knowledge & skills development | <ul style="list-style-type: none"> • Collecting data • Formatting a spreadsheet • What's the formula? • Calculate and duplicate • Event planning • Presenting data | <ul style="list-style-type: none"> • Getting to know a spreadsheet • Quick calculations • Collecting data • Become a data master! • Level up your data skills! • Assessment |
| Summer 1 | Key area of understanding | Creating media – 3D Modelling | Programming essentials in Scratch – part II |
| | Knowledge & skills development | <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 | <ul style="list-style-type: none"> • You've got the moves! • Fly cat fly! • Loop the loop! • Treasure those lists! • Translate this! (Part 1) • Translate this! (Part 2) |

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| Summer 2 | Key area of understanding | Programming B - Sensing movement | Using media – Gaining support for a cause |
| | Knowledge & skills development | <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 | <ul style="list-style-type: none"> • Features of a word processor • Licensing appropriate images • The credibility of sources • Research and plan your blog • Promoting your cause • Project completion and assessment |