Ackworth Howard C of E School

Educating for 'life in all its fullness.'

Computing Curriculum – Essential Knowledge

Intent

The children at Ackworth Howard J&I School are digital natives – they are as adept at navigating a touch screen as they are at using a pencil and paper. Growing up in an increasingly digitized world, we understand the importance of giving our children exceptional learning opportunities in Computing.

Having recently invested heavily in tech across school, we are committed to developing an innovative curriculum which offers our children the chance to grow their understanding of digital technology, how to develop computational thinking, and how to stay safe online.

Our children are familiar with new tech, and use it across the curriculum to support their learning. Our facilities, integrated into all the classrooms, include interactive whiteboards and computers, laptops and iPads as well as other experimental tech.

Mind

To encourage growth in mind, we offer opportunities to develop leadership skills through our Digital Leaders programme, whereby children are trained to take on leadership roles and to support others in computing across the school. Creativity is encouraged throughout the curriculum, such as during our Christmas Hackathon or during cross-curricular work such as retelling the story of Boudicca's rebellion through Scratch.

Body

To encourage growth in body, we aim to equip our children with the knowledge and resilience to use digital technologies responsibly and safely, not only during Safer Internet Week, but throughout the year in response to current events and changing trends in our children's online activities.

Spirit

To encourage growth in spirit, we encourage our children to embrace change, particularly in response to new technologies. We aim to nurture responsible digital citizens, for whom 'society' is global, not just local.

What our children say about Computing...

How much do you enjoy your computing lessons at Ackworth Howard School?

★★★★★★★★★★☆ (average rating 8.81/10)

How confident do you feel in your computing lessons at Ackworth Howard School?

★★★★★★★★★☆☆ (average rating 7.58/10)

How much do you enjoy your science computing at Ackworth Howard School?

★★★★★★★★★☆☆ (average rating 8.26/10)

Source: February 2020 Pupil Voice Survey (147 responses)

Essentials for Computing…

- All children to be discerning users of the internet and to have an understanding of when to use it.
- To be confident and creative users, open to new ideas of learning.
- To treat all equipment with respect.
- To use technology safely and respectfully: keeping personal information private, identify steps needed to remain safe and where to go for support.
- Children to start to use technology purposefully in a range of context ensuring that the end product if fit for purpose.
- To gather the knowledge and understanding to become an active participant in the digital world.

Early Years Computing

Autumn Term			
Area of Learning:		Nursery	Reception
Understanding the World	Computing Links	Mark make on paint software on the Interactive Whiteboard Can play simple games on the Interactive Whiteboard by pressing buttons Children can switch a camera on and off	Select brushes, colours and rubbers when drawing on paint software Can play simple games on the Interactive Whiteboard by dragging and dropping items Children can record videos on the camera Children know to ask for help if needed
Vocabulary	Computing Links	Computer, laptop, iPad, tablet, button, app, control, Beebot, headphones, Picture, video, play / pause, colour, size, paintbrush	Computer, laptop, iPad, tablet, button, app, control Picture, video, play / pause, colour, size, paintbrush

Early Years Computing

Spring Term			
Area of Learning:		Nursery	Reception
Understanding the World	Computing Links	Select brushes, colours and rubbers when drawing on paint software Can play simple games on the Interactive Whiteboard by dragging and dropping items Children can take photos on the camera	Use various tools such as brush, pens, stamps, erasers and shapes with support Children can independently change games or increase levels of difficulty on games Children can edit photos Children know what personal information is and know that it should not be shared online
Vocabulary	Computing Links	Computer, laptop, iPad, tablet, button, app, control, Beebot, headphones, Picture, video, play / pause, colour, size, paintbrush	Computer, laptop, iPad, tablet, button, app, control Picture, video, play / pause, colour, size, paintbrush

Early Years Computing

Summer Term			
Area of Learning:		Nursery	Reception
Understanding the World	Computing Links	Select brushes, colours and rubbers when drawing on paint software Can play simple games on the Interactive Whiteboard by dragging and dropping items Children can record videos on the camera Children know to ask for help if needed	Use various tools such as brush, pens, stamps, erasers and shapes with support Children can independently change games or increase levels of difficulty on games Erases content and understands how to charge the cameras Children know what personal information is and know that it should not be shared online
Vocabulary	Computing Links	Computer, laptop, iPad, tablet, button, app, control, Beebot, headphones, Picture, video, play / pause, colour, size, paintbrush	Computer, laptop, iPad, tablet, button, app, control Picture, video, play / pause, colour, size, paintbrush

Year 1

National Curriculum	Ackworth Howard's Knowledge Essentials
Pupils should be taught to: **Computer Science** • understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions • create and debug simple programs • use logical reasoning to predict the behaviour of simple programs	**<u>Programming Toys</u>** • say what an algorithm is • say why it is important to be precise when writing an algorithm • check their work for mistakes (debug) • program a robot (Bee-Bot) using the arrow buttons • start their programming sequence again if they need to • check their work for mistakes to debug a program • plan and check an algorithm **<u>Programming with Scratch</u>** • open the Scratch and start a new project • add new characters and backgrounds • use blocks for movement in different directions • create short sets of sequenced 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

Year 1

National Curriculum	Ackworth Howard's Knowledge Essentials
Information technology • use technology purposefully to create, organise, store, manipulate and retrieve digital content	**Word Processing Skills** • Type with two hands • Use shift, space and enter correctly • Use undo and redo • Make text bold, italic or underline • Save their work in their folder • Edit text using backspace, delete and the arrow keys. • Format the font • Select single words. **Painting** • Paint with different colours. • Paint with different brushes. • Create shapes. • Save their paintings in their folder. • Fill an area with a colour. • Undo and redo. • Add text.

Year 1

National Curriculum	Ackworth Howard's Knowledge Essentials
Digital literacy • recognise common uses of information technology beyond school • use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies	**Online Safety** • type their name and the date on a piece of work they have created • choose the correct Safe Search filter when using a search engine • make links between the online and offline world • recall rules for Internet safety • recognise which personal information they should keep safe from strangers • help to construct an email.

Year 1 Computing Vocabulary

Essential Vocabulary

Programming Toys	**Programming with Scratch**	**Word Processing Skills**	**Painting**	**Using and applying**	**Online safety**
Code Left Right Forward Backward Pause Clear Go Program Bee-bot Turn Sequence Quarter half **Aspirational vocabulary** Algorithm	Blocks Character Background Sprite Sequence Move Repeat Repeat forever Invisible Shrink Sound Wait Show Hide Record Start **Aspirational vocabulary** Programs Project predict	Keyboard Backspace Shift Type Folder Enter Symbols Save Return Space bar Arrow keys Delete Undo Redo Select Key Bold Italics Underline **Aspirational vocabulary** format	Paint Brush Colour Tools Bucket Text Shape Screen Mouse Type Computer Draw Undo Redo Save Open **Aspirational vocabulary**	*This unit, coming at the end of the academic year, incorporates all the vocabulary learnt in the previous topics.*	Online Key Safe Communicate Meet Email Accept Address Reliable Tell Device Keyboard Search engine Image Text Save Folder Name date **Aspirational vocabulary** copyright

Year 2

National Curriculum	Ackworth Howard's Knowledge Essentials
Pupils should be taught to: **Computer Science** • understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions • create and debug simple programs • use logical reasoning to predict the behaviour of simple programs	**<u>Preparing for Turtle Logo</u>** • Walk forward a number of steps. • Turn accurately 90° (a quarter turn). • Walk squares and rectangles. • Give and follow instructions **<u>Programming Turtle Logo & Scratch</u>** • Draw lines of different lengths using the fd command. • Move blocks into the Scripts Area. • Snap blocks together to combine commands • Turn the turtle using rt 90 and lt 90. • Draw squares and rectangles. • Create simple algorithms using a number of different blocks. • Use the repeat and green flag blocks to control algorithms.

Year 2

National Curriculum	Ackworth Howard's Knowledge Essentials
Information technology • use technology purposefully to create, organise, store, manipulate and retrieve digital content	**Presentation Skills** • Insert slides, add and type in a text box • Create folders. • Print files. • Add images. • Format text and text boxes **Computer Art** • access an appropriate program for achieving a specific task; • switch between program tools to produce different techniques; • alter the formatting of a tool to adjust the colour or size. • recreate a piece of art using a computer program; • manipulate shapes and objects to recreate an art style.

Year 2

National Curriculum	Ackworth Howard's Knowledge Essentials
Digital literacy • recognise common uses of information technology beyond school • use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies	**Online Safety** • know what 'digital footprint' means; • know that people can use the information they put online; • know that a digital footprint contains information about a person; • identify keywords that will give good search results; • use a website to search for information; • begin to identify possible dangers online; • identify websites suitable for their age; • know when to ask an adult for advice about accessing a website; • know what to do if a website makes them uncomfortable; • talk about what people might want to know about a website; • give their opinion about a website; • say what they like and dislike about a website; • begin to consider who a website could be aimed at; • identify unkind online behaviour; • know what to do if they think someone is being unkind to them online; • know how to safely search for information online; • choose appropriate websites for their age. **Using the Internet** • search using the words "for kids"; • follow a weblink; • locate their own blog; • understand how to blog safely and responsibly • identify search results that will give some useful information; • know where to find the address of a link; • log in and post a blog or comments.

Year 2 Computing Vocabulary

Essential Vocabulary

Preparing for Turtle Logo

Move
Forward
Half turn
Quarter turn
Turn
Square
Rectangle
Instructions
Right / left 90
Forward 4

Aspirational vocabulary

Commands
algorithm

Programming Turtle Logo and Scratch

Repeat
Right (rt)
Forward (fd)
Left (lt)
Sound
Turn
Instructions
Clear screen (cs)
Commands
move

Aspirational vocabulary

Variable
algorithm

Presentation skills

Log off
Search
Shut down
Folder
Image
Format
Colour
Black and white
Photo
Double sided
Copy
Windows
Switch
Monitor
Insert
Print
Date

Aspirational vocabulary

System unit

Computer Art

Program
Tool
Fill
Straight lines
Primary colours
Weight
Manipulate
Rotate
Shade
Harmonious
Complementary
Duplicate
Copy and paste
Selective
Combination
review

Aspirational vocabulary

Pointillism
Cubism
Impressionism
Pop art

Online safety

Digital
Online
Search
Keyword
Website
Search engine
Cyberbullying
Information
Personal
Private
Profile
Account
Bullying
Report
Phone
Laptop
Tablet
App
comment

Aspirational vocabulary

Digital footprint

Using the internet

Internet
World wide web
Search
Search engine
Results
Google
Bing
Yaho
Kidrex
Browser
Link
Web page
Back
Reload
Research
Photo
Camera
Tablet
Upload
blog

Year 3

National Curriculum	Ackworth Howard's Knowledge Essentials
Pupils should be taught to: **Computer Science** • 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	**Programming Turtle Logo & Scratch** • Create and debug algorithms to draw regular polygons using the repeat command/ block (Turtle Logo and Scratch) • Draw shapes with spaces between using penup and pendown (Turtle Logo) • Change and alter the pen settings (Scratch)

Year 3

National Curriculum	Ackworth Howard's Knowledge Essentials
Information Technology • 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	**Word Processing Skills** • Use undo and redo. • Make text bold, italic or underline. • Select text in different ways. • Change case. • Align text. • Select single words. • Cut, copy and paste text. • Format the font. • Insert images. • Copy a screenshot into another application. • Use a secure password. • Use keyboard shortcuts. **Presentation Skills** • Create a simple presentation • Create shapes • Create a hyperlink to another slide • Use slide transitions • Insert audio and video files (where possible) • Record audio onto a slide • Plan a branching story • Create simple slide templates • Copy and organise slides as required **Drawing and Desktop Publishing** • Draw objects. • Insert text boxes and images. • Order and group objects. • Move, resize and arrange text boxes and images effectively

Year 3

National Curriculum	Ackworth Howard's Knowledge Essentials
Digital literacy • 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 technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	**Internet Research and Communication** • To know and understand how word order affects the results returned. • They will know how to bookmark or favourite a page and name different types of online communication. • Children will know what to do if they feel uncomfortable when communicating online. • They will be able to identify how they should behave online. • Identify which word order gives the better results when searching online and be able to support this with examples. • They will be able to share a webpage with others. • Children will be able to research the different types of online communication used by their peers. **Online Safety** • recognise cyberbullying • identify a safe person to tell if they encounter cyberbullying • know that cyberbullying can happen via a range of devices • identify adverts online • identify a targeted advert • explore how companies use websites to promote products • create a strong password • explain why a strong password is important • explain what privacy settings are • discuss email as a form of communication • identify an email that they should not open • write an email with an address and subject • know how to safely send an email • know how to safely receive an email • identify online communities they are a part of • identify different forms of online communication • discuss the positive and negative aspects of online communities • discuss the differences between communication in real life and online • discuss what they have learnt about online safety • communicate their ideas with a group clearly and listen to others' contributions • use what they know about online safety to plan a party using online methods.

Year 3 Computing Vocabulary

Essential Vocabulary					
Programming Turtle Logo and Scratch Pen up Pen down Variable Algorithm Right (rt) Forward (fd) Left (lt) Turn Calculation Instructions Clear screen (cs) Commands move **Aspirational vocabulary**	**Word processing skills** Keyboard Typing Save Folder Shift Caps lock Space bar Edit Backspace Delete Arrow keys Undo Redo Select Window Minimise Password Screenshot Snipping tool shortcut **Aspirational vocabulary**	**Presentation skills** Theme Transition Animation Slide Link File format Hyperlink Button Shape Action settings Audio Video Embed Evaluate Branching story Image Text Text box Title Colour **Aspirational vocabulary**	**Drawing and desktop publishing** Text Text box Format Image Photo Photograph Wrap text Square Aspect ratio Objects Layout Background Outline Font Size colour **Aspirational vocabulary**	**Internet Research and Communication** Webpage Social media Search Link Bing Google Yahoo **Aspirational vocabulary**	**Online safety** Online Internet Cyberbullying Email Password Device Digital Safety Technology Social media Website Advertisement Privacy settings Secure Digital citizen Digital footprint Community Inbox Forum comments

Year 4

National Curriculum	Ackworth Howard's Knowledge Essentials
Pupils should be taught to: **Computer Science** • 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	**Scratch: Questions and Quizes** • Write a program which accomplishes a specific goal. • Create a program that includes a logical sequence. • Debug a program they have written • Use repetition and selection. • Work with variables and adjust these depending on the effect they wish to create. • Understand and use the duplicate function. • Demonstrate that they understand how to combine a range of different effects to create their own quiz. **Programming Turtle Logo** • Write procedures using simple algorithms. • Change the colour of the pen. • Write text using the label command. • Draw shapes using setpos or setxy. • Fill shapes in different colours. • Draw arcs of different sizes as required

Year 4

National Curriculum	Ackworth Howard's Knowledge Essentials
Information Technology • 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	**Word Processing** • select, edit and manipulate text in different ways • insert an image into a document • format an image • use formatting tools to improve the layout • use the spellcheck tool • insert a simple table • change the size of the page • use some of the main keyboard shortcuts • suggest ways to improve a layout • apply specific effects to an image • add a spelling to the spelling dictionary • add or delete rows or columns in a table • suggest ways to change a table • type at an appropriate speed • choose a relevant website to link a document to • create a hyperlink. **Animation** • Explain what is meant by animation • Create a series of linked frames that can be played as a short animation. • Control and adjust a time slider to locate a different point in a film clip. • Insert images to create a simple stop-motion animation short film clip. • Evaluate the good and bad points about some animation software. • Describe one or more traditional methods of animation. • Make slight changes to an image using onion skinning, understanding the term. • Use a time slider to find a specific point in a film clip to insert or edit an object. • Edit and refine images in a stop-motion animation short film clip. • Compare different animation software by analysing good and bad points.

Year 4

National Curriculum	Ackworth Howard's Knowledge Essentials
Digital literacy • 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 technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	**Online Safety** • define cyberbullying • know how to respond to a hurtful message or comment online • access a trusted search engine • understand that different search terms give different results • know what plagiarism is • identify which information to keep private online • explain what digital citizenship is • tell someone else at least one way to stay safe online • identify comments or messages that may be hurtful to others • edit their own messages and comments to make sure they are kind • understand that search results are ranked • choose an appropriate number of words for a search term • explain how to use other people's work respectfully • explain why it may be dangerous to share private information • explain how to be a good digital citizen • tell someone else more than one way to stay safe online

Year 4 Computing Vocabulary

Essential Vocabulary				
Scratch: Questions and Quizzes	**Programming Turtle Logo**	**Word Processing**	**Animation**	**Online safety**
Algorithm Costume Quiz Effects Sprite Scratch library sounds Scratch library costumes Scratch library backdrops Sound Backdrop Variable Blocks question	Pen up Pen down Variable Algorithm Turn Right (rt) Forward (fd) Left (lt) Calculation Instructions Clear screen (cs) Commands move	Hyperlink Insert Toolbar Text Format Edit Font type Font colour Font size Align Paste Copy Bullet Text box Wrap Save Spellcheck Review Highlight cursor	Frame rate Play Stop Record Onion skinning Thaumatrope Zoetrope Flip book Animation Zoopraxiscope Stereoscope Loop Still image Analyse Evaluate Stop motion	Online Safety Cyberbullying Message Search Search engine Search results Plagiarism Citation Social media Profile Account Private Public Digital citizen Responsibility Community Personal information Share permission

Year 5

National Curriculum	Ackworth Howard's Knowledge Essentials
Pupils should be taught to: **Computer Science** • 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	**Scratch – Developing Games** • move and edit blocks as part of an algorithm. • program an algorithm as a sequence of game instructions with actions and consequences. **Controlling Devices** • Follow written instructions to draw a simple flowchart • Insert symbols into a flowchart • Add inputs into a flowchart. • Identify conventional symbols, understanding the process of each stage. • Create a program to control a simple sequence. • Modify symbols in a flowchart for effect. • Create flowcharts for multiple inputs and outputs. • Use decisions and subroutines. • Program inputs and outputs

Year 5

National Curriculum	Ackworth Howard's Knowledge Essentials
Information Technology • 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	**Internet Research and Webpage Design** • Comment on the features and layout of a webpage. • Create a new webpage with a chosen layout and format text in the webpage. • Independently search for images that can be used in documents. • Insert and format an image in a webpage. • Independently create a hyperlink • Learn how to share a webpage so it can be viewed by anyone. • Use the advanced features of Google's web search **3D Modelling** • Draw 2D shapes or lines. • Draw simple 3D models • Manipulate 2D shapes into 3D shapes. • Import 3D models from the 3D warehouse. • Use a range of SketchUp tools including: shape, push, pull, orbit, pan, zoom, erase and fill. • Draw and manipulate 3D models independently. • Use inference points to draw lines and shapes. • Use a wide range of SketchUp tools and concepts including: the dimensions toolbar and guides, tape measure, zoom extents and the 3D warehouse. **Radio Station** • Record and play their own sounds in recording software • Import an existing sound file into recording software to play • Choose appropriate software for sound recording • Plan and record a radio advert • Listen to and improve on their own recordings by re-recording • Locate and download existing sound files to be imported into recording software • Combine two or more tracks to make a new, original recording • Plan and record appropriate audio content for a podcast • Evaluate what features makes good quality audio content

Year 5

National Curriculum	Ackworth Howard's Knowledge Essentials
Digital literacy • 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 technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	**Online Safety** • identify a spam email • explain what to do with spam email • understand why they should cite a source • explain the rules for creating a strong password • create a strong password using a set of rules • know that not everything they see online is true • explain how to stay safe online • identify unsafe online behaviour • identify a dangerous spam email • create multiple strong passwords for use across different platforms • spot citations online • alter a photograph.

Year 5 Computing Vocabulary

Essential Vocabulary					
Scratch: Developing Games Repeat Score Variable Block Level Costume Sprite Commentary Backdrop Code Debug Events Scripts algorithm	**Controlling devices** Delay Output Start Stop Flowchart Decision Loop Symbol Input Mimic **Aspirational vocabulary** subroutine	**Internet Research and webpage design** Internet World wide web Search Search engine Google Browser Tab Window Laout Text Font Colour Image Video Animation Website Hyperlink Share	**3D modelling** 2D shape 3D shape Rectangle Move Push Pull eraser Zoom Zoom extents Group Dimension Measurement Component Rotate **Aspirational vocabulary** Offset Pan Orbit inference	**Radio station** Play Stop Record Skip Digital content Mute Podcast Output Input Sound Download Jingle Audio Voiceover Edit **Aspirational vocabulary** Waveform gain	**Online safety** Spam Email Link Attachment Junk Inbox Research Password Secure Photo Social media Personal information Digital citizen Filter Source Edit Plagiarism Bibliography **Aspirational vocabulary** Cite citation

Year 6

National Curriculum	Ackworth Howard's Knowledge Essentials
Pupils should be taught to: **Computer Science** • 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	**Scratch: Animated Stories** • Select appropriate characters to match a scene. • Animate characters with movement and speech in a story scene. • Use broadcast and receive blocks correctly in code. • Use show and hide blocks correctly in code. • Create a sequence of story scenes with added audio. • Structure and sequence the animation of characters in each scene. • Use the repeat command to create animation effect. • Make a character visible or invisible at the correct times. **Kodu Programming** • Open Kodu and navigate the programming environment using keyboard or mouse. • Add objects to a world and program them using When and Do instructions. • Plan and design the features of an original virtual environment. • Program a character to move around a track. • Create a path for a character to follow. • Follow instructions given in the Kodu programming environment. • Describe the actions of a sequence of Kodu commands. • Use tools to change the size of the ground and raise or lower the landscape. • Decompose code into smaller parts and explain it in their own words. • Create a race track with an end goal for a game. • Program a character to follow a path.

Year 6

National Curriculum	Ackworth Howard's Knowledge Essentials
Information Technology • 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	**<u>Spreadsheets</u>** • Enter text and numbers into a spreadsheet. • Identify and refer to cells by row and column. • Begin to enter formulae with the SUM function • Be able to enter formulae into cells. • Edit data and discuss the effect on results. • Use further functions including AVERAGE, MIN and MAX. • Create graphs. • Design their own spreadsheet for a specific purpose **<u>Film-Making</u>** • plan and write a script using appropriate software • search for relevant information using appropriate websites • use a digital video camera (or similar device) to record • plan suitable questions to ask an interviewee • import video files into video editing software. • plan additional elements for film-making such as locations and props • evaluate whether information is reliable or not • speak clearly into the camera when being recorded • frame an appropriate filming shot when interviewing • arrange video files to form a complete film

Year 6

National Curriculum	Ackworth Howard's Knowledge Essentials
Digital literacy • 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 technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	**<u>Online Safety</u>** • say what bullying and cyberbullying are • say how people should deal with cyberbullying • understand why I should ask an adult if I am unsure • identify warning signs that a website might not be secure • identify personal information • explain what to do if I am asked or told something online which makes me uncomfortable • explain some of the dangers of revealing personal information to an online friend • choose an appropriate action online to stay safe • identify a situation I should be careful in online • understand how a stereotype can be harmful. • look in the address bar of a website so check for security • identify the lock symbol in an address bar • explain why someone might have an online friendship • explain what the SMART acronym means • explain what a stereotype is • compare gender stereotypes.

Year 6 Computing Vocabulary

Essential Vocabulary				
Scratch: Animated stories Animate Visible Invisible Project Show Hide Receive Broadcast User Repeat Audio Debug Record **Aspirational vocabulary** Iteration	**Kodu programming** World Smooth Flatten Raise Kodu Start Finish Program Environment Acceleration Bump Obstacle Object Track Path Node Character Tool palette	**Spreadsheets** Spreadsheet Cell Row Column Formula Calculate Format Average Percent Edit Insert Ascending Descending Sort Graph Budget Total **Aspirational vocabulary** cumulative	**Film-making** Documentary Film Production Pre-production Post-production Improvise Interview Location Prop Copyright Source Shot Angle Close-up Frame Zoom Import Convert Upload screening	**Online safety** Cyberbullying Reporting Anonymous Victim Security Secure Private Personal Policy Https Domain Media Attachments Site Browser Gender Stereotype Message Instant messaging