

**ABINGDON PRIMARY SCHOOL –
Computing Progression of Knowledge**



CURRICULUM AREA	EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
KEY VOCABULARY	<p>Digital Literacy: Choices Internet Website</p> <p>Computer Science: Equipment Buttons Movement</p> <p>Information Technology: Collect photos Count Screen Mouse Images Keyboard Paint</p>	<p>Digital Literacy: Rules Online Private information Email</p> <p>Computer Science: Instructions Buttons Robots Patterns Program</p> <p>Information Technology: Photographs Video Sound Data Pictogram Videos Camera stills Sounds Space bar</p>	<p>Digital Literacy: Paint effects Templates Animation Documents Enter/return Caps lock Backspace</p> <p>Computer Science: Forward Backward Right-angle turn Algorithm Sequence Debug Predict</p> <p>Information Technology: Questions Data collection Graphs Charts Save Retrieve</p>	<p>Digital Literacy: E-safety rules Secure passwords Report abuse button Personal information</p> <p>Computer Science: Sequence instructions Sequence debugging Test + improve Logo commands Sequence programming</p> <p>Information Technology: Questioning Database Construct Contribute Multimedia Presentations Alignment Brush size Repeats Amend Copy Paste</p>	<p>Digital Literacy: Report Secure password Respectful online behaviour Gaming Download files</p> <p>Computer Science: Sensors Open-ended problems Bugs in programs Complex programming</p> <p>Information Technology: Database creation Database searches Inaccurate data Creating + modifying Specific purpose Photo modifying Keyboard shortcuts Bullet points Spell check</p>	<p>Digital Literacy: communication Informed choices Virus threats Messaging Appropriate password</p> <p>Computer Science: Explore procedures Refine procedures Variable Hardware + software control Inputs Outputs Commands</p> <p>Information Technology: Spreadsheets Problem solving Analyse information Question data Interpret Multimedia effects Transitions Hyperlinks Editing tools Refining Online sharing</p>	<p>Digital Literacy: Reporting Password protection Anonymity Reputable source Plagiarism</p> <p>Computer Science: Predicting outputs Program writing Control mimics + devices Sensors Measure input Create variables Link errors</p> <p>Information Technology: Generate Process Interpret Store Present information Plausibility Investigations Audience Atmosphere Copyright Information collection HTML code Storing</p>

E-Safety

- To ask an adult when I want to use the internet.
- To tell an adult when something worrying or unexpected happens to me whilst using the internet.
- To talk about the amount of time I spend on a game/tablet/device.

- To keep my password private.
- I can tell you what personal information is.
- To tell a trusted adult when I see something that worries me.
- To recognise an age appropriate website.
- To agree to and follow internet safety rules in my classroom.

- To explain why I need to keep my password and personal information safe.
- To describe the things that happen online that I must tell an adult about.
- I can talk about why I should go online for a short amount of time.
- To talk about why it is important to be kind and respectful online and in real life.
- To know that everyone is not who they say they are on the internet.

- To talk about what makes a secure password and why they are important.
- To protect my personal information when I'm online.
- To report any concerns to a trusted adult.
- To recognise websites and games appropriate for my age.
- To make good choices about how long I spend online.
- To ask an adult before downloading files online.

- To choose a secure password
- To talk about the ways in which I can protect myself from harm online.
- To use the safety features of a website as well as reporting concerns to a trusted adult.
- To know that anything I post can be seen by others online.
- To know I need to ask a trusted adult before I download files from the internet. I comment positivity and respectfully online.

- To choose a secure password and appropriate username.
- To know that my password and other personal information.
- To explain why I need to protect myself and my friends and I report concerns to a trusted adult.
- To know that anything I post can be seen by others and may affect others.
- To talk about the dangers of spending too much time online.
- To explain the importance of communicating kindly online. I can explain why I need to protect my computer or device from harm.

- To protect my password and other personal information
- To explain the consequences of sharing too much about myself online.
- To support my friends to protect themselves online including reporting concerns to a trusted adult.
- To explain the consequences on spending too much time online or on a game.
- To explain the consequences of being unkind online.
- To protect my computer or device from harm on the internet.

<p>Digital Literacy</p>	<ul style="list-style-type: none"> • To tell you about some technology that is used at home and in school. • To operate simple equipment. I can an age appropriate part of the internet to play and learn. • To care when holding and using technology devices. 	<ul style="list-style-type: none"> • To recognise the ways we use technology in our classroom. • To recognise the ways we use technology in my home. • To use links to websites and find information. I can begin to identify some benefits of technology. 	<ul style="list-style-type: none"> • To tell you why we use the technology in our classroom. • To tell you why we use technology in my home. • To start to understand that other people have created the information I use. • To identify some benefits of using technology. EG: communication, information collecting, and creating. • To talk about the differences between things on the internet and things in the real world. 	<ul style="list-style-type: none"> • To save and retrieve work on the internet or on my school network. • To talk about the parts of a computer. • To tell you ways to communicate with others online. • To use search tools to find and use an appropriate website. 	<ul style="list-style-type: none"> • To tell whether a resource I am using is on the internet, on my school network or on my own device. • To identify key words to use when searching safely on the World Wide Web. • To think about the reliability of information I read on the World Wide Web. • To give constructive feedback to myself and my friends. 	<ul style="list-style-type: none"> • To describe different parts of the internet. • To use different online communication tools for different purposes. • To use a search engine to find information and check its reliability. • To recognise and evaluate different types of information I find on the World Wide Web. • To describe different parts of a webpage. • To find out who the information on a webpage belongs to. • To know which resources on the internet I can download and use. I can describe the ways in which websites advertise their products to me. 	<ul style="list-style-type: none"> • To identify the different internet services I need for different purposes. • To describe how information is transported on the internet. • To select an appropriate tool to communicate online. • To talk about the way search results are selected and ranked. • To check the reliability of a website. • To have an awareness of copyright.
--------------------------------	--	---	---	--	--	--	--

**Computer
Science**

- To make a floor robot move.
- To use simple software to make something happen.
- To make choices about the buttons and icons I touch or click on.

- To give instructions to my friend and follow their instructions to move around.
- To describe what happens when I press buttons on a robot.
- To press buttons in the correct order to make a robot do what I want it to.
- To describe what actions I will need to take to make something happen.
- To begin to use the word algorithm

- To give instructions to my friend, using forward, backward and turn and physically follow their instructions.
- To tell you the order I need to make something happen and talk about this as an algorithm.
- To program a robot or software to do a particular task.
- To look at my friends' program and tell you what will happen.
- To use programming software to make things move.
- To watch a program and spot where it goes wrong and then debug it

- To break an open-ended problem up into smaller parts.
- To put programming commands into a sequence to achieve a specific outcome.
- To test my program and recognise when I need to debug it.
- To use repeat commands.
- To describe the algorithm I will need for a simple task.
- To detect problems in algorithms.

- To use logical thinking to solve an open-ended problem by breaking it up into smaller parts.
- To use an efficient procedure to simplify a program.
- To use a sensor to detect a chance which can select an action within a program.
- To know that I need to keep testing my program while I'm putting it together.
- To use a variety of tools to create a program.
- To recognise that an algorithm will help me to sequence more complex problems.

- To decompose a problem into smaller parts to design an algorithm for a specific outcome and use this to write a program.
 - To refine a procedure and repeat commands to improve a program.
 - To use a variable to increase programming possibilities.
 - To change an input to a program and achieve a different output.
 - To use 'if' and 'then' commands to select an action.
 - To use logical reasoning to detect and debug mistakes in a program.
- To use logical thinking, imagination and creativity to extend a program.

- To deconstruct a problem into smaller steps, recognising similarities to solutions used before.
- To explain and program each of the steps in my algorithm.
- To evaluate the effectiveness and efficiency of my algorithm while I test the programming of that algorithm.
- To recognise when I need to use a variable to achieve a required output.
- To use a variable and operators to stop a program.
- To use different inputs to control a device or onscreen action and predict what will happen.
- To use logical reasoning to detect and correct errors in a program.

**Information
Technology**

- To tell you about different kinds of information such as pictures, video, sound and text.
- To move objects on a screen.
- To create shapes and text on a screen.

- To talk about the different ways in which information can be shown.
- To use technology to collect information like photos, videos and sound.
- To sort different kinds of information to present to others.
- To add information to a pictograph.
- To be creative with technology tools.
- To use technology to create and present my ideas.
- To use the keyboard to enter text.
- To save information in a special place and retrieve it again

- To talk about the different ways I use technology to collect data. Eg: cameras, microscope, sound recorders.
- To make and save a chart or graph.
- To talk about the data that is shown in a chart or graph.
- To start to understand databases.
- To use technology to organise and present my ideas in different ways.
- To use a keyboard to add, delete and space text.
- To tell you about an online tool that will help me to share my ideas with other people.
- To save and open a file

- To talk about the different ways data can be organised.
- To search a ready-made database to answer questions.
- To collect data to help me answer a question.
- I can add to a database.
- To use a data logger and talk about the information collected.
- To create different effects with different tools.
- To combine a mixture of graphics and sound to share my ideas and learning.
- To use appropriate keyboard commands to amend text on my device.
- To use a spellchecker.
- To evaluate my work. I can share my work online.

- To organise data in different ways
- To collect data and identify where it could be inaccurate.
- To plan, create and search a database to ask questions.
- To choose the best way to present data.
- To use photos videos and sound to create an atmosphere when presenting to different audiences.
- To change the appearance of text to increase its effectiveness.
- To create, modify and present documents for a particular purpose.
- To use spell checker to review my work.
- To create a hyperlink to a resource on the internet.

- To use a spreadsheet and database to collect and record data.
- To choose an appropriate tool to help me collect data.
- To present data in an appropriate way.
- To search a database and use tools to refine my search.
- To talk about mistakes in data and suggest how they can be checked
- To use text, photo, sound and video editing tools.
- To use the skills I have to create content using unfamiliar technology.
- To use tools to create and share ideas.
- To review and improve my own and others work in order to make improvements..

- To plan the process needed to investigate the world around me.
- To select the most appropriate tool to collect data.
- To check the data I have collected for plausibility.
- To interpret the data I have collected.
- To present data in an appropriate way.
- To use the skills I have to interrogate a database.
- To combine a range of media, recognising the contribution of each to achieve a particular outcome.
- To adapt my work depending on the audience and atmosphere.
- To tell you why I select a particular tool for a specific purpose.
- To evaluate my own work and the work of others.