

**Year One : Spring 1**

**Topic title:**

**E-Safety - Using the internet safely.**

**Computer systems and networks - Improving mouse skills And Creating media - Digital imagery**

**Skills used:** Computer science (CS) Information Technology (IT) Digital Literacy (DL)

**Big question:** How does a cursor move?

**Prior learning:**

- Exploration and exposure to technology and use of tools in EYFS.
- Logging in and logging out -E-safety

**Future learning:**

- Online emotions - E-safety.

**E-safety Skills:**

Recognising devices that are connected to the internet. (IT)  
 Understanding that we are connected to others when using the internet. (IT)  
 Understanding some of the ways we can use the internet. (IT)  
 Recognising common uses of information technology, including beyond school. (IT)  
 When using the internet to search for images, learning what to do if they come across something online that worries them or makes them feel uncomfortable. (DL)  
 Understanding how to interact safely with others online. (DL)  
 Recognising how actions on the internet can affect others. (DL)  
 To be able to recognise what a digital footprint is and how to be careful about what we "post". (DL)

**E-safety Knowledge:**

To know that the internet is many devices connected to one another.  
 To know what to do if you feel unsafe or worried online - tell a trusted adult.  
 To know that people you do not know on the internet (online) are strangers and are not always who they say they are.  
 To know that to stay safe online it is important to keep personal information safe.  
 To know that 'sharing' online means giving something specific to someone else via the internet and 'posting' online means placing information on the internet.

**Knowledge:**

**Improving mouse Skills-**

To know that "log in and log out" means to begin and end a connection with a computer.  
 To know that a computer and mouse can be used to click, drag, fill and select and also add backgrounds, text, layers, shapes and clip art.  
 To know that passwords are important for security.

**Creating media -**Developing control of the mouse through dragging, clicking and resizing of images to create different effects.

Developing understanding of different software tools.  
 Searching and downloading images from the internet safely.

**Skills:**

**Improving mouse skills -**

Learning how to explore and tinker with hardware to find out how it works. (CS)  
 Learning where keys are located on the keyboard. (CS)  
 Using a basic range of tools within graphic editing software. (IT)  
 Developing control of the mouse through dragging, clicking and resizing of images to create different effects. (IT)  
 Developing understanding of different software tools. (IT)  
 Recognising devices that are connected to the internet. (IT)  
 Logging in and out and saving work on their own account. (DL)

**Creating media -**

Learning how to explore and tinker with hardware to find out how it works.  
 Learning where keys are located on the keyboard.  
 Learning how to operate a camera to take photos and videos.  
 Developing the skills associated with sequencing in unplugged activities.  
 Using a basic range of tools within graphic editing software. (IT)  
 Taking and editing photographs (IT)  
 Developing control of the mouse through dragging, clicking and resizing of images to create different effects. (IT)  
 Developing understanding of different software tools. (IT)  
 Searching and downloading images from the internet safely. (IT)  
 When using the internet to search for images, learning what to do if they come across something online that worries them or makes them feel uncomfortable. (DL)

**Critical Content Statements:**

**E-safety:**

**Strangers-** are people you don't know online.

**Personal information** - is your name, age, address and birthday.

**Trusted adult** - adults you talk to if you are unsure, such as parents and teachers.

**Improving mouse Skills:**

**Log on-** To put in a username and password unique to you, to access your personal account.

**Log off** - To lock your account.

**Computer** -Electronic machine that accepts and processes information to produce an output and then stores the results.

**Mouse** - A handheld device that is used to move things around on the computer screen.

**Resize** - To change the height and width of an object.

**Tool** - An object that helps us with a particular task. For example, a ruler helps us measure.

**Creating media:**

**Camera** - A device used to take, or record, pictures of people and objects.

**Download** - To save a file from the internet or another computer.

**Photograph** - Still images that are taken by a camera.

**Smart device** - An electronic device, connected to other devices or the internet.

**Sequence** - A set order or pattern for something to follow.

**Year one: Summer 1**

**Topic title:**

**E-safety-** online emotions **And** Being kind online

**Programming-**Algorithms unplugged

**Skills used:** Computer science (CS) Information Technology (IT) Digital Literacy (DL)

**Big question:** What does algorithm mean?

**Prior learning:**

- All about instructions
- Using the internet safely- E-safety.

**Future learning:**

- Algorithms and debugging
- Being kind online-Esafety.

**E-safety Skills:**

Recognising devices that are connected to the internet. (IT)  
Understanding that we are connected to others when using the internet. (IT)  
Understanding some of the ways we can use the internet. (IT)  
Recognising common uses of information technology, including beyond school. (IT)  
When using the internet to search for images, learning what to do if they come across something online that worries them or makes them feel uncomfortable. (DL)  
Understanding how to interact safely with others online. (DL)  
Recognising how actions on the internet can affect others. (DL)  
To be able to recognise what a digital footprint is and how to be careful about what we "post". (DL)

**E-safety Knowledge:**

To know that the internet is many devices connected to one another.  
To know what to do if you feel unsafe or worried online - tell a trusted adult.  
To know that people you do not know on the internet (online) are strangers and are not always who they say they are.  
To know that to stay safe online it is important to keep personal information safe.  
To know that 'sharing' online means giving something specific to someone else via the internet and 'posting' online means placing information on the internet.

**Knowledge:**

To understand that an algorithm is when instructions are put in an exact order.  
To know that input devices get information into a computer and that output devices get information out of a computer.  
To understand that decomposition means breaking a problem into manageable chunks and that it is important in computing.  
To know that we call errors in an algorithm 'bugs' and fixing these 'debugging'.

**Skills:**

Learning to debug an algorithm in an unplugged scenario. (CS)  
Learning to debug instructions when things go wrong. (CS)  
Assembling instructions into a simple algorithm. (CS)  
Following a basic set of instructions. (CS)  
Developing the skills associated with sequencing in unplugged activities. (CS)  
Using decomposition to solve unplugged challenges. (CS)  
Learning that decomposition means breaking a problem down into smaller parts. (CS)  
Recognising that some devices are input devices and others are output devices. (CS)

**Critical Content Statements:**

**E-safety:**

**Strangers-** are people you don't know online.

**Personal information** - is your name, age, address and birthday.

**Trusted adult** - adults you talk to if you are unsure, such as parents and teachers.

**Algorithms unplugged:**

**Algorithm** - A clear set of instructions to carry out a task.

**Bug** - An error or mistake in computer code.

**Debug** -To fix the error in code.

**Decompose** - To break something down into smaller chunks.

**Input** -A way of telling the computer what you want it to do.

**Output** - Information or data that is sent by the computer to an output device such as a printer or speakers.

**Solution** -The method to solve a problem.

## Year one: Summer 2

**Topic title:**

**E-safety** - posting and sharing online **And** how much time should I spend on technology?

**programming** - bee-bots

**Skills used:** Computer science (CS) Information Technology (IT) Digital Literacy (DL)

**Enquiry question:** How does a bee-bot know where to go?

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| <p><b>Prior learning:</b></p> <ul style="list-style-type: none"> <li>● Algorithms unplugged</li> <li>● Being kind online - E-safety.</li> </ul> <p><b>Future learning:</b></p> <ul style="list-style-type: none"> <li>● Algorithms and debugging</li> <li>● Scratch jr</li> </ul> | <p><b>E-safety Skills:</b></p> <p>Recognising devices that are connected to the internet. (IT)</p> <p>Understanding that we are connected to others when using the internet. (IT)</p> <p>Understanding some of the ways we can use the internet. (IT)</p> <p>Recognising common uses of information technology, including beyond school. (IT)</p> <p>When using the internet to search for images, learning what to do if they come across something online that worries them or makes them feel uncomfortable. (DL)</p> <p>Understanding how to interact safely with others online. (DL)</p> <p>Recognising how actions on the internet can affect others. (DL)</p> <p>To be able to recognise what a digital footprint is and how to be careful about what we "post". (DL)</p> <p><b>E-safety Knowledge:</b></p> <p>To know that the internet is many devices connected to one another.</p> <p>To know what to do if you feel unsafe or worried online - tell a trusted adult.</p> <p>To know that people you do not know on the internet (online) are strangers and are not always who they say they are.</p> <p>To know that to stay safe online it is important to keep personal information safe.</p> <p>To know that 'sharing' online means giving something specific to someone else via the internet and 'posting' online means placing information on the internet.</p> | <p><b>Knowledge:</b></p> <p>To understand the basic functions of a Bee-Bot.</p> <p>To know that algorithms move a bee-bot accurately to a chosen destination.</p> <p>To know that you can use a camera/tablet to make simple videos.</p> | <p><b>Skills:</b></p> <p>Learning that decomposition means breaking a problem down into smaller parts. (CS)</p> <p>Using decomposition to solve unplugged challenges. (CS)</p> <p>Using logical reasoning to predict the behaviour of simple programs. (CS)</p> <p>Developing the skills associated with sequencing in unplugged activities. (CS)</p> <p>Following a basic set of instructions. (CS)</p> <p>Assembling instructions into a simple algorithm. (CS)</p> <p>Using decomposition to solve unplugged challenges. (CS)</p> <p>Programming a Floor robot to follow a planned route. (CS)</p> <p>Learning to debug instructions when things go wrong. (CS)</p> <p>Learning to debug an algorithm in an unplugged scenario. (CS)</p> <p>Taking and editing photographs (IT)</p> |
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**Critical Content Statements:**

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| <p><b>E-safety:</b></p> <p><b>Strangers-</b> are people you don't know online.</p> <p><b>Personal information</b> - is your name, age, address and birthday.</p> <p><b>Trusted adult</b> - adults you talk to if you are unsure, such as parents and teachers.</p> | <p><b>Bee- Bots:</b></p> <p><b>Bee-Bot</b> - A small programmable floor robot, with seven buttons (forwards, backwards, turn right, turn left, go, pause and clear).</p> <p><b>Algorithm</b> -A clear set of instructions to carry out a task.</p> <p><b>Tinker</b> - To explore and play with something to discover what it can do.</p> <p><b>Computer Program</b> - A series of instructions that are written for a computer to follow. Also known as apps.</p> <p><b>Instructions</b> - A list of commands and directions on how to do something.</p> <p><b>Predict</b> - To make a guess.</p> |
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