

Improving Mouse Skills

Year One Knowledge



Log in and log out means to begin and end a connection with a computer.



A computer and mouse can be used to click, drag, fill, select, add backgrounds, text, layers, shapes and clipart.



Passwords are important for security and to keep us safe.

Key vocabulary

account

click

clipart

computer

drag

drag and drop

layers

log off

log on

mouse

password

predict

resize

screen (monitor)

software

tool

username

Unit outcomes

Pupils who are **secure** will know how to:

- ✓ Use computers more purposefully
- ✓ Log in and navigate around a computer
- ✓ Drag, drop, click and control a cursor using a mouse
- ✓ Use software tools to create art on the computer

Improving Mouse Skills

Year One Skills



Learning how to explore and tinker with hardware to find out how it works.



Learning where keys are located on the keyboard.



Using a basic range of tools within graphic editing software.



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



Developing an understanding of different software tools.



Recognising devices that are connected to the internet.



Logging in and out and saving work on their own account.

Algorithms Programming 1

Year One Knowledge



An algorithm is when instructions are put in an exact order.



Decomposition means breaking a problem into manageable chunks and that is important in computing.



We call errors in an algorithm are called bugs and fixing these is called debugging.

Key vocabulary

algorithm	artificial intelligence	bug
chunks	code	computer
debug	decompose	device
directions	input	instructions
manageable	order	organise
output	program	problem
solution	specific	tasks
virtual assistant		

Unit outcomes

Pupils who are **secure** will be able to:

- ✓ Explain what an algorithm is.
- ✓ Write clear algorithms.
- ✓ Follow an algorithm.
- ✓ Explain what inputs and outputs are.
- ✓ Create an achievable program.
- ✓ Decompose a design into steps.
- ✓ Identify bugs in an algorithm and how to fix them.

Algorithms Programming 1

Year One Skills



Recognising that some devices are input devices and others are output devices.



Learning that decomposition means breaking a problem down into smaller parts.



Using decomposition to solve unplugged challenges.



Developing the skills associated with sequencing in unplugged activities.



Following a basic set of instructions.



Assembling instructions into a simple algorithm.



Learning to debug instructions when things go wrong.



Learning to debug an algorithm in an unplugged scenario.

Rocket to the Moon

Year One Knowledge



To know that when we create something on a computer it can be more easily saved and shared than a paper version.



To know some of the simple graphic design features of a piece of online software.



To know that a spreadsheet is an electronic 'table' for sorting data.

Key vocabulary

annotate	cells	components
create	data	debug
designing	digital content	digital image
document	e-document	edit
editing software	editing program	evaluate
folder	graphics	input
instructions	log in	photo
program	order	robot
save	sequence	share

Unit outcomes

Pupils who are **secure** will be able to:

- ✓ Use a computer to make a list
- ✓ Explain the benefits of making a list on the computer
- ✓ Use a basic range of tools on graphics editing software to design a rocket
- ✓ Sequence instructions
- ✓ Follow instructions to build their model rocket
- ✓ Input data about their rockets into a table or spreadsheet

Rocket to the Moon

Year One Skills



Learning where keys are located on the keyboard.



Learning how to operate a camera to take photos and videos.



Using logical reasoning to predict the behaviour of simple programs.



Assembling instructions into a simple algorithm.



Learning to debug instructions when things go wrong.



Learning to debug an algorithm in an unplugged scenario.



Using a basic range of tools within graphic editing software.



Taking and editing photographs.



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



Developing understanding of different software tools.



Recognising devices that are connected to the internet.



Understanding that technology can be used to represent data in different ways: pictograms, tables, pie charts, bar charts, block graphs etc.

Bee-Bot Programming

Year One Knowledge



The basic functions of a Bee-Bot.



You can use a camera/tablet to make simple videos.



Algorithms move a Bee-Bot accurately to a chosen destination.

Key vocabulary

algorithm	Bee-Bot	code
debug	demonstration	explain
explore	filming	inputting
instructions	precise	predict
program	review	test
tinker	video	

Unit outcomes

Pupils who are **secure** will be able to:

- ✓ Recognise cause and effect when pressing buttons on a Bee-Bot.
- ✓ Discuss and demonstrate how the Bee-Bot works.
- ✓ Record video, ensuring everyone is in the shot.
- ✓ Give several clear instructions in sequence.
- ✓ Program a Bee-Bot to reach a destination.
- ✓ Identify and correct mistakes in their programming.

Bee-Bot Programming

Year One Skills



Learning how to explore and tinker with hardware to find out how it works.



Learning how to operate a camera to take photos and videos.



Using decomposition to solve unplugged challenges.



Using logical reasoning to predict the behaviour of simple programs.



Developing the skills associated with sequencing in unplugged activities.



Following a basic set of instructions.



Assembling instructions into a simple algorithm.



Programming a floor robot to follow a planned route.



Learning to debug instructions when things go wrong.



Using programming language to explain how a floor robot works.



Learning to debug an algorithm in an unplugged scenario.



Taking and editing photographs.

Digital Imagery



Year One Knowledge



Holding a camera or device still and considering angles and light are important to taking good pictures.



Photographs can be edited, cropped and filtered.



How to search safely for images online.

Key vocabulary

background	blurred	camera
clear	crop	delete
device	digital camera	download
drag and drop	edit	editing software
filter	image	import
internet	keyword	online
photograph	resize	save as
screen	search engine	sequence
software	storage space	visual effects

Unit outcomes

Pupils who are **secure** will be able to:

- ✓ Plan a pictorial story using photographic images in sequence.
- ✓ Explain how to take clear photos.
- ✓ Take photos using a device.
- ✓ Edit photos by cropping, filtering and resizing.
- ✓ Search for and import images from the internet.
- ✓ Explain what to do if something makes them uncomfortable online.
- ✓ Organise images on the page, orientating where necessary.

Digital Imagery



Year One Skills



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.



Taking and editing photographs.



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



Developing an understanding of different software tools.



Searching and downloading images from the internet safely.



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.

Data Handling: Introduction to Data



Year One Knowledge



Charts and pictograms can be created using a computer.



A branching database is a way of classifying a group of objects.



Computers understand different types of input.

Key vocabulary

bar chart	block graph	branching database
categorise	chart	click and drag
compare	count	data
data collection	data record	data representation
edit	input	keyboard
line graph	mouse	information
label	pictogram	pie chart
process	record	resize
sort	table	tally

Unit outcomes

Pupils who are **secure** will be able to:

- ✓ Represent animal-themed data in different ways, using objects and technology.
- ✓ Log in and use mouse and keyboard skills to navigate the computer.
- ✓ Represent the same data as a pictogram and a table or chart.
- ✓ Collect data about minibeasts using a tally chart and represent data digitally.
- ✓ Click and drag objects to sort data using a branching database.
- ✓ Consider the types of input used to gather different forms of data when designing an invention.

Data Handling: Introduction to Data



Year One Skills



Learning how to explore and tinker with hardware to determine how it works.



Recognising that some devices are input devices and others are output devices.



Learning where keys are located on the keyboard.



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



Developing an understanding of different software tools.



Recognising devices that are connected to the internet.



Understanding that technology can be used to represent data in different ways, such as pictograms, tables, pie charts, bar charts and block graphs.



Using data representations to answer questions about data.



Using software to explore and create pictograms and branching databases.

Online Safety



Year One 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.

Key vocabulary

app	appropriate	device
digital footprint	feelings	going online
in-person interactions	internet	kindness
offline activity	online activity	online experience
online interactions	online safety	personal information
pop-up	posting online	report
responsible digital citizen	screen time	sharing online
stranger	technology	trusted adult
unkind	website	

Unit outcomes

Pupils who are **secure** will be able to:

- ✓ Discuss what the internet is and how it can be used.
- ✓ Recognise that the internet may affect mood or emotions.
- ✓ Recognise how internet use can affect and upset others.
- ✓ Identify which information is appropriate to share and post online and which is not.

Online Safety



Year One Skills



Recognising devices that are connected to the internet.



Understanding that we are connected to others when using the internet.



Understanding some of the ways we can use the internet.



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.



Understanding how to interact safely with others online.



Recognising how actions on the internet can affect others.



Recognising what a digital footprint is and how to be careful about posting online.



Discussing ways to balance time spent online and offline.

Online Safety



Year One Skills



Recognising devices that are connected to the internet.



Understanding that we are connected to others when using the internet.



Understanding some of the ways we can use the internet.



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.



Understanding how to interact safely with others online.



Recognising how actions on the internet can affect others.



Recognising what a digital footprint is and how to be careful about posting online.



Discussing ways to balance time spent online and offline.



Learning to debug instructions when things go wrong.



Using programming language to explain how a floor robot works.



Learning to debug an algorithm in an unplugged scenario.



Taking and editing photographs.