

Networks



Year Three Knowledge



To understand that a network is a group of interconnected devices.



To know the components that make up a network (Wireless access point/WAP, Network switch, Router, Server and devices).



To know that a server is central to a network and responds to requests made.



To know that the internet connects all the networks around the world.



To know that a router connects us to the internet.



To know what a packet is and why it is important for website data transfer.

Unit outcomes

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

- ✓ Recognise that a network is two or more devices connected and its purpose.
- ✓ Identify key components that make up the school's network.
- ✓ Explain the difference between wired and wireless connections.
- ✓ Recognise that files are saved on a server.
- ✓ Understand the role of the server in a network when requesting a website.
- ✓ Identify parts of a website's journey to reach your computer.
- ✓ Recognise that routers connect to send information.
- ✓ Understand that data is broken into packets.

Key vocabulary

device
file
internet
network
network switch
packet data
router
server
the cloud
user
WiFi
wired
wireless
wireless access point

Networks



Year Three Skills



Learning about the purpose of routers.



Understanding the role of the key components of a network.



Understanding that websites and videos are files that are shared from one computer to another.



Learning about the role of packets.



Understanding how networks work and their purpose.



Identifying the key components within a network, including whether they are wired or wireless.



Recognising links between networks and the internet.



Learning how data is transferred.

Scratch Programming

Year Three Knowledge



Scratch is a programming language and some of its basic functions.



How to use loops to improve programming.



How decomposition is used in programming.



That you can remix and adapt existing code.

Key vocabulary

algorithm	animation	application
code	code block	debug
decompose	game	interface
loop	predict	program
remixing code	repetition code	review
Scratch	sprite	tinker

Unit outcomes

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

- ✓ Explain what some of the blocks do in Scratch.
- ✓ Explain what a loop is and include one in their program.
- ✓ Suggest possible additions to an existing program by remixing code.
- ✓ Recognise where something on screen is controlled by code.
- ✓ Use a systematic approach to find bugs.
- ✓ Understand the definitions of decomposition and algorithm and how they are used to create accurate code.

Scratch Programming

Year Three Skills



Using decomposition to explore the code behind an animation.



Using repetition in programs.



Using logical reasoning to explain how simple algorithms work.



Explaining the purpose of an algorithm.



Forming algorithms independently.



Using logical thinking to explore more complex software; predicting, testing and explaining what it does.



Incorporating loops to make code more efficient.



Continuing existing code.



Making reasonable suggestions for how to debug their own and others' code.

Emailing



Year Three Knowledge



To understand that email stands for 'electronic mail.'



To know that an attachment is an extra file added to an email.



To understand that emails should contain appropriate and respectful content.



To know that cyberbullying is bullying using electronics such as a computer or phone.

Unit outcomes

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

- ✓ Log in and out of email.
- ✓ Send a simple email with a subject plus 'To' and 'From' in the body of the text.
- ✓ Edit an email.
- ✓ Type in the email address correctly and send the email.
- ✓ Add an attachment to an email.
- ✓ Write an email using positive language, with an awareness of how it will make the recipient feel.
- ✓ Recognise unkind behaviour online and know how to report it.
- ✓ Offer advice to victims of cyberbullying.
- ✓ Recognise when an email may be fake and explain how they know.

Key vocabulary

Attachment	Bcc (Blind carbon copy)	Cc (Carbon copy)
Compose	Content	Cyberbullying
Document	Domain	Download
Email	Email account	Email address
Emoji	Emotions	Fake
Font	Genuine	Hacker
Icons	Inbox	Information
Link	Log in	Log out
Negative language	Password	Personal information

Emailing

Year Three Skills



Learning to log in and out of an email account.



Writing an email including a subject, 'to' and 'from'.



Sending an email with an attachment.



Replying to an email.



Understanding the purpose of emails.



Learning about cyberbullying.



Learning that not all emails are genuine, recognising when an email might be fake and what to do about it.

Journey Inside a Computer

Year Three Knowledge



To know the roles that inputs and outputs play on computers.



To know what some of the different components inside a computer are e.g. CPU, RAM, hard drive, and how they work together.



To know what a tablet is and how it is different from a laptop/desktop computer.

Key vocabulary

Algorithm	Assemble	CPU (central processing unit)
Data	Decompose	Desktop
Disassemble	GPU (graphics processing unit)	Hard drive
HDD (hard disk drive)	Infinite loop	Input
Keyboard	Laptop	Memory
Microphone	Monitor	Mouse
Output	Photocopier	Program
QR Code	RAM (random access memory)	ROM (read only memory)

Unit outcomes

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

- ✓ Recognise inputs and outputs and that the computer sends and receives information.
- ✓ Explain that the parts of a laptop work together and the purpose of each part.
- ✓ Explain what an algorithm is.
- ✓ Suggest what memory is for inside a computer.
- ✓ Make comparisons between different types of computer.

Journey Inside a Computer

Year Three Skills



Understanding what the different components of a computer do and how they work together.



Drawing comparisons across different types of computers.



Using decomposition to explain the parts of a laptop computer.



Explaining the purpose of an algorithm

Video Trailers



Year Three Knowledge



To know that different types of camera shots can make my photos or videos look more effective.



To know that I can edit photos and videos using film editing software.



To understand that I can add transitions and text to my video.

Key vocabulary

Application	Camera angle	Clip
Cross dissolve	Edit	Fade to black
Fade to white	Film	Film editing software
Graphics	Import	Key events
Music	Photo	Plan
Recording	Slide	Sound effects
Storyboard	Time code	Trailer
Transition	Video	Voiceover
Wipe		

Unit outcomes

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

- ✓ Describe the purpose of a trailer.
- ✓ Create a storyboard for a book trailer.
- ✓ Consider camera angles when taking photos or videos.
- ✓ Import videos and photos into film editing software.
- ✓ Add text to a video.
- ✓ Incorporate transitions between images.
- ✓ Evaluate their own and others' trailers.

Video Trailers



Year Three Skills



Using logical thinking to explore more complex software; predicting, testing and explaining what it does.



Taking photographs and recording video to tell a story.



Using software to edit and enhance their video adding music and text on screen with transitions.

Comparison Cards

Databases

Year Three Knowledge



To know that a database is a collection of data stored in a logical, structured and orderly manner.



To know that computer databases can be useful for sorting and filtering data.



To know that different visual representations of data can be made on a computer.

Key vocabulary

Categorise	Category	Chart
Data	Database	Excel
Fields	Filter	Graph
Information	Interpret	PDF
Questionnaire	Record	Representation
Sort	Spreadsheet	

Unit outcomes

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

- ✓ Explain what is meant by 'field,' 'record,' and 'data.'
- ✓ Compare paper and computerised databases.
- ✓ Put values into a spreadsheet.
- ✓ Sort, filter and interpret data in a spreadsheet.
- ✓ Create a graph.
- ✓ Explain the purpose of visual representations of data.

Comparison Cards

Databases

Year Three Skills



Using logical thinking to explore more complex software; predicting, testing and explaining what it does.



Understanding the vocabulary associated with databases: field, record, data.



Learning about the pros and cons of digital versus paper databases.



Sorting and filtering databases to easily retrieve information.



Creating and interpreting charts and graphs to understand data.

Online Safety



Year Three Knowledge



That not everything on the internet is true: people share facts, beliefs and opinions online.



The internet can affect people's moods and feelings.



Privacy settings limit who can access important personal information, such as names, ages, gender etc.



What social media is and that age restrictions apply.

Key vocabulary

accurate	age restrictions	autocomplete
belief	charity	content
digital device	fact	fake news
hoax	internet	internet of things
opinion	online emotions	organisation
permission	privacy settings	reliable
search	search engine	share
smart devices	social media platforms	

Unit outcomes

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

- ✓ Differentiate between fact, opinion and belief online.
- ✓ Explain how to deal with upsetting online content.
- ✓ Recognise that digital devices communicate with each other to share personal information.
- ✓ Explain what social media platforms are used for.
- ✓ Recognise why social media platforms are age-restricted.

Online Safety



Year Three Skills



Recognising how social media platforms are used to interact.



Recognising that different information is shared online, including facts, beliefs and opinions.



Learning how to identify reliable information when searching online.



Learning how to stay safe on social media.



Considering the impact technology can have on mood.