	Autumn Term		Spring	Spring Term Summer Term		er Term	Ongoing throughout the year	
	We also cover online safety through Safer Internet Day, PSHE sessions, Picture News, responding to safeguarding or other is pupils and families.					es, sharing e-safety newsle	•	
	Ada Lovelace Day — Computi 2024	ing link 8 th October	Safer Internet Day 11 th Febr STEM Week — 7 th - 16 th March					
EYFS	Ada Lovelace Day — Computing link 8th October 2024 Physical development — using mini mash to develop fine motor skills Staying Safe Online • Self Image and Identify I can recognise, online or offline, that anyone can say 'no' - 'please stop' - 'I'll tell' - 'I'll ask' to somebody who makes them feel sad, uncomfortable, embarrassed or upset • Online Relationships I can recognise some ways in which the internet can be used to communicate I can give examples of how I (might) use technology to communicate with people I know • Online bullying I can describe ways that some people can be unkind online I can offer examples of how this can make		Safer Internet Day 11th February 2025 STEM Week — 7th - 16th March 2025 Programming — Coding caterpillar / and early algorithms Staying safe online • Managing online information I can talk about how to use the internet as a way of finding information online I can identify devices I could use to access information on the internet. • Health, well-being and lifestyle I can identify rules that help keep us safe and healthy in and beyond the home when using technology I can give some simple examples of these rules		Barefoot = Programming - Springtime Staying safe online Privacy and Security I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location) I can describe who would be trustworthy to share this information with; I can explain why they are trusted. Copyright and ownership I know that work I create belongs to me I can name my work so that others know it belongs to me		completes a simple program on a computer interacts with age- appropriate computer software use technology for different purpose navigating mini mash and saving learning in their personal trays using iPads where appropriate to ailearning e.g. phonic apps, book appbook creator app, green screen make sharp, alert, secure, kind and brave online choices to help us to be internet legends.	
		/ear 1 – Creating /edia – Digital	Year 1 -Programming A - Moving a Robot	Year 1 - Data and Information –Grouping	Year 1 - Creating Media — Digital	Year 1 - Programming B — Introduction to	Using technology: • develop their skills in using a mous	
Y1	us (Paintz.app) -T -To identify technology di	Printing (Paintz.app) To describe what lifferent freehand tools	beebots & beebot pushers -To explain what a given command will do -To act out a given word	Data (Word) -To label objects -To identify that objects can be counted	Writing (Word) -To use a computer to write -To add and remove text on a computer	animation (scratch JR app) I pads -To choose a command for a given purpose	 logging on and off a computer develop their familiarity with a computer and keyboards develop their typing speed exposure to a range of technology make sharp, alert, secure, kind and brave online choices to help us to b internet legends. 	

-To use a mouse in different ways
-To use a keyboard to type on a computer
-To use the keyboard to edit text
-To create rules for using technology responsibly

Self Image and Identity

I can recognise that there may be people online who could make someone feel sad, embarrassed or upset

If something happens that makes me feel sad, worried, uncomfortable or frightened I can give examples of when and how to speak to an adult I can trust and how they can help.

-To use the shape tool and the line tools
-To make careful choices when painting a digital picture
-To explain why I chose the tools I used
-To use a computer on my own to paint a

picture
-To compare painting a picture on a computer and on paper

<u>Online</u> <u>Relationships</u>

I can give examples of when I should ask permission to do something online and explain why this is important

I can explain why things one person finds funny or sad online may not always be seen in the same way by others. -To combine forwards and backwards commands to make a sequence -To combine four direction commands to make sequences -To plan a simple program

-To plan a simple program -To find more than one solution to a problem

Online Bullying

I can describe how to behave online in ways that do not upset others and can give examples -To describe objects in different ways -To count objects with the same properties -To compare groups of objects -To answer questions

about groups of objects

Online Reputation

I can recognise that information can stay online and could be copied

I can describe what information I should not put online without asking a trusted adult first.

-To identify that the look of text can be changed on a computer -To make careful choices when changing text -To explain why I used the tools that I chose -To compare typing on a computer to writing on paper

Managing Online Information

I can give simple examples of how to find information using digital technologies, e.g. search engines, voice activated searching

I know how to get help from a trusted adult if we see content that makes us feel sad, uncomfortable, worried or frightened. -To show that a series of commands can be joined together -To identify the effect of changing a value -To explain that each

instructions -To design the parts of a project

sprite has its own

-To use my algorithm to create a program

Privacy and Security

I can explain how passwords are used to protect information, accounts and devices.

I can explain why it is important to always ask a trusted adult before sharing any personal information online, belonging to myself or others

Big Brown Bear Keyboard Game for familiarity and beginning to use learn to type

Year 2 -Computing systems & networks -IT around us

Y2

- -To recognise the uses and features of information technology -To identify the uses of information technology in the school
- -To identify information technology beyond school
- -To explain how information technology helps us
- -To explain how to use information technology safely
- -To recognise that choices are made when using information technology

Self-Image and Identity

I can explain how other people may look and act differently online and offline

I can give examples of issues online that might make someone feel sad, worried, uncomfortable or frightened; I can give examples of how they might get help

Year 2- Creating Media

— Digital Music Chrome

Music lab

-To say how music can make us feel
-To identify that there are patterns in music
-To experiment with sound using a computer
-To use a computer to create a musical pattern
-To create music for a purpose
-To review and refine

Managing Online Information

our computer work

I can explain the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real'

I can explain why some information I find online may not be real or true

Year 2 – Programming A - Robot Algorithms

- Robot Algorithms
 (beebots & beebot pen pushers)

-To describe a series of instructions as a sequence -To explain what happens when we change the order of instructions -To use logical reasoning to predict the outcome of a program -To explain that programming projects can have code and artwork -To design an algorithm -To create and debug a program that I have written

Online Reputation

I can explain how information put online about someone can last for a long time

I know who to talk to if something has been put online without consent or if it is incorrect Year 2 - Programming B - An introduction to quizzes (scratch JR) ipads

- -To explain that a sequence of commands has a start -To explain that a
- -To explain that a sequence of commands has an outcome
- -To create a program using a given design
- -To change a given design -To create a program using my own design
- -To decide how my project can be improved

Privacy and Security

I can describe and explain some rules for keeping personal information private (e.g. creating and protecting passwords)

I can explain how some people may have devices in their homes connected to the internet and give examples Year 2 - Creating Media

— Digital Photography
(Pixlr editing software or windows photo editor)

Ipads

-To use a digital device to take a photograph
-To make choices when taking a photograph
-To describe what makes a good photograph
-To decide how photographs can be improved

-To use tools to change an image

-To recognise that photos can be changed

Online Relationships

I can give examples of how someone might use technology to communicate with others they don't also know offline and explain why this might be risky

I can describe different ways to ask for, give, or deny my permission online and can identify who can help me if I am not sure

Year 2 - Data and information — Pictograms (j2e.com/j2data) ipads

- -To recognise that we can count and compare objects using tally charts -To recognise that objects can be represented as pictures
- -To create a pictogram -To select objects by attribute and make comparisons
- -To recognise that people can be described by attributes
- -To explain that we can present information using a computer

Online Bullying

I can explain what bullying is, how people may bully others and how bullying can make someone feel

I can talk about how anyone experiencing bullying can get help.

Using technology:

- developing typing speed, aiming for a minimum speed of 13wpm
- exposure to and increasingly independently use a range of technology
- make sharp, alert, secure, kind and brave online choices to help us to be internet legends.

Big Brown Bear - using learn to type to develop speed and accuracy

Year 3 - Computing
systems and networks —
Connecting computers
ipads

Y3

- -To explain how digital devices function
- -To identify input and output devices -To recognise how
- digital devices can change the way we work
- -To explain how a computer network can be used to share information
- -To explore how digital devices can be connected
- -To recognise the physical components of a network

<u>Self – Image and</u> <u>Identity</u>

I can explain what is meant by the term 'identity'

I can explain ways in which someone might change their identity depending on what they are doing online (e.g. gaming; using an avatar; social media) and why

Year 3 — Creating
Media — Stop Frame
Animation I motion app

-To explain that animation is a sequence of drawings or photographs
-To relate animated movement with a sequence of images
-To plan an animation
-To identify the need to work consistently and carefully
-To review and improve

an animation
-To evaluate the impact of adding other media

to an animation

<u>Online</u> Relationships

I can explain what it means to 'know someone' online and why this might be different from knowing someone offline

I can explain how someone's feelings can be hurt by what is said or written online Year 3 -Programming A -Sequencing sound (Scratch to follow on from scratch JR)

-To explore a new programming environment -To identify that commands have an outcome -To explain that a program has a start -To recognise that a sequence of commands can have an order -To change the appearance of my project -To create a project from a

Online Bullying

task description

I can describe appropriate ways to behave towards other people online and why this is important.

I can give examples of how bullying behaviour could appear online and how someone can get support Year 3 - Data and
Information — Branching
databases (j2data website)

- -To create questions with yes/no answers -To identify the attributes
- -To identify the attribute needed to collect data about an object
- -To create a branching database
- -To explain why it is helpful for a database to be well structured
- -To plan the structure of a branching database
- -To independently create an identification tool

Managing Online Information

I can demonstrate how to use key phrases in search engines to gather accurate information online

I can explain the difference between a 'belief', an 'opinion' and a 'fact. and can give examples of how and where they might be shared online Year 3 -Creating Media -Desktop Publishing (adobe spark or publisher)

-To recognise how text and images convey information -To recognise that text and layout can be edited

- -To choose appropriate page settings -To add content to a desktop publishing
- publication
 -To consider how
 different layouts can suit
- different purposes
 -To consider the benefits of desktop publishing

Privacy and Security

I can describe simple strategies for creating and keeping passwords private

I can give reasons why someone should only share information with people they choose to and can trust Programming B - Events and actions in programs Scratch

- -To explain how a sprite moves in an existing project
- -To create a program to move a sprite in four directions
- -To adapt a program to a new context
- -To develop my program by adding features
- -To identify and fix bugs in a program
- -To design and create a maze-based challenge

Copyright and Ownership

I can explain why copying someone else's work from the internet without permission isn't fair and can explain what problems this might cause

Using technology:

- develop their independence and confidence in using these devices.
- aim to reach **20WPM** by the end of Year 4.
- make sensible **choices** about the technology they use to **enhance and help** them with their work, and to justify their choices
- make sharp, alert, secure, kind and brave online choices to help us to be internet legends.

Y4

Year 4 - Computing systems and networks — The Internet Chrome Music Lab

- -To describe how networks physically connect to other networks
- -To recognise how networked devices make up the internet
- -To outline how websites can be shared via the World Wide Web (WWW)
- -To describe how content can be added and accessed on the World Wide Web (WWW)
- -To recognise how the content of the WWW is created by people -To evaluate the
- -To evaluate the consequences of unreliable content

Self — Image and Identity

I can explain how my online identity can be different to my offline identity.

I can explain that others online can pretend to be someone else, including my friends, and can suggest reasons why they might do this

Year 4 – Creating Media – Audio Production Audacity

-To identify that sound can be recorded -To explain that audio recordings can be edited -To recognise the

-To recognise the different parts of creating a podcast project

-To apply audio editing skills independently -To combine audio to enhance my podcast

project
-To evaluate the
effective use of audio

Online Relationships

I can describe strategies for safe and fun experiences in a range of online social environments

I can explain how content shared online may feel unimportant to one person but may be important to other people's thoughts feelings and beliefs

Year 4 Programming A — Repetition in shapes (logo) Turtleacademy.com

-To identify that accuracy

in programming is important
-To create a program in a text-based language
-To explain what 'repeat' means
-To modify a count-controlled loop to produce a given outcome
-To decompose a task into small steps
-To create a program that uses count-controlled loops to produce a given outcome

Online Reputation

I can describe how to find out information about others by searching online.

I can explain ways that some of the information about anyone online could have been created, copied or shared by others

Year 4 — Data and Information — Data Logging TTS Logger / Google Science Journal

-To explain that data gathered over time can be used to answer questions -To use a digital device to collect data automatically -To explain that a data logger collects 'data points' from sensors over time -To recognise how a computer can help us analyse data -To identify the data needed to answer questions "-To use data from sensors to answer questions

Online Bullying

I can describe ways people can be bullied through a range of media.

I can explain why people need to think carefully about how content they post might affect others, their feelings and how it may affect how others feel about them (their reputation

<u>Year 4 — Creating Media</u> <u>— Photo Editing <mark>Paint.net</mark></u>

-To explain that the composition of digital images can be changed -To explain that colours can be changed in digital images -To explain how cloning

-To explain how cloning can be used in photo editing

-To explain that images can be combined -To combine images for a purpose

-To evaluate how changes can improve an image

Managing Online Information

I can analyse information to make a judgement about probable accuracy and I understand why it is important to make my own decisions regarding content and that my decisions are respected by others.

I can explain that technology can be designed to act like or impersonate living things (e.g. bots) and describe what the benefits and the risks might be

Year 4 Programming B – Repetition in games (scratch)

- -To develop the use of count-controlled loops in a different programming environment
- -To explain that in programming there are infinite loops and count controlled loops
- -To develop a design that includes two or more loops which run at the same time
- -To modify an infinite loop in a given program -To design a project that includes repetition
- -To create a project that includes repetition

Copyright and Ownership

When searching on the internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it

I can give some simple examples of content which I must not use without permission from the owner, e.g. videos, music, images

Using technology:

- increasingly develop their independence and confidence in using these devices.
- aim to reach 20WPM by the end of Year 4.
- make sensible **choices** about the technology they use to **enhance and help** them with their work, and to justify their choices
- make sharp, alert, secure, kind and brave online choices to help us to be internet leaends.

Y5

Year 5 - Computing systems and networks sharing information

- -To explain that computers can be connected together to form systems
- -To recognise the role of computer systems in our lives
- -To experiment with search engines
- -To describe how search engines select results
- -To explain how search results are ranked
- -To recognise why the order of results is important, and to whom

Self-Image and Identity

I can explain how identity online can be copied, modified or altered

I can demonstrate how to make responsible choices about having an online identity, depending on context Year 5 -Creating media - video production (Movie & green screen)

-To explain what makes a video effective -To identify digital devices that can record video

-To capture video using a range of techniques -To create a storyboard

-To identify that video can be improved through reshooting and

-To consider the impact of the choices made when making and sharing a video

editina

Online Relationships

I can give examples of technology-specific forms of communication

I can explain how someone can get help if they are having problems and identify when to tell a trusted adult Year 5 - Programming A

- Selection in physical
computing Crumble Packs

-To control a simple circuit connected to a computer -To write a program that includes count-controlled loops

-To explain that a loop can stop when a condition is met

-To explain that a loop can be used to repeatedly check whether a condition has been met

-To design a physical project that includes selection

-To create a program that controls a physical computing project

Online Bullying

I can recognise online bullying can be different to bullying in the physical world and can describe some of those differences

I can describe how what one person perceives as playful joking and teasing (including 'banter') might be experienced by others as bullying

Year 5 - Data and information — Flat-file databases j2e.com/j2data

-To use a form to record information -To compare paper and computer-based databases

-To outline how you can answer questions by grouping and then sorting data

-To explain that tools can be used to select specific data

-To explain that computer programs can be used to compare data visually -To use a real-world database to answer questions

Managing Online Information

I can evaluate digital content and can explain how to make choices about what is trustworthy e.g. differentiating between adverts and search results

I can explain key concepts including: information, reviews, fact, opinion, belief, validity, reliability and evidence

Year 5 — Creating media — Introduction to vector graphics (google drawings) / Vectr

-To identify that drawing tools can be used to produce different outcomes -To create a vector

-To create a vector drawing by combining shapes

-To use tools to achieve a desired effect

-To recognise that vector drawings consist of layers -To group objects to make them easier to

-To apply what I have learned about vector drawings

work with

Privacy and Security

I can explain what a strong password is and demonstrate how to create one

I can explain what app permissions are and can give some examples Year 5 — Programming b -- Selection in quizzes (Scratch)

is used in computer programs
-To relate that a conditional statement connects a condition to

-To explain how selection

an outcome -To explain how selection directs the flow of a program

-To design a program which uses selection -To create a program which uses selection -To evaluate my program

Online Reputation

I can search for information about an individual online and summarise the information found

I can describe ways that information about anyone online can be used by others to make judgments about an individual and why these may be incorrect

Using technology:

- increasingly develop their independence and confidence in using these devices.
- typing speed at least 20WPM
- make sensible **choices** about the technology they use to **enhance and help** them with their work, and to justify their choices
- make sharp, alert, secure, kind and brave online choices to help us to be internet legends.

Y6

Year 6 – computing systems and networks

- -To explain the importance of internet addresses
- -To recognise how data is transferred across the internet
- -To explain how sharing information online can help people to work together
- -To evaluate different ways of working together online
- -To recognise how we communicate using technology
- -To evaluate different methods of online communication

<u>Self - Image and</u> <u>Identity</u>

I can identify and critically evaluate online content relating to gender, race, religion, disability, culture and other groups, and explain why it is important to challenge and reject inappropriate representations online.

I can explain the importance of asking until I get the help needed

Year 6 — creating media - web page creation (google sites)

ACCOUNT NEEDED

-To review an existing website and consider its structure -To plan the features of a web page -To consider the ownership and use of images (copyright) -To recognise the need to preview pages -To outline the need for a navigation path -To recognise the implications of linking to content owned by other people

<u>Online</u> <u>Relationships</u>

I can explain how sharing something online may have an impact either positively or negatively

I can describe how things shared privately online can have unintended consequences for others. e.g. screen-grabs.

Year 6 programming A – variables in games (scratch)

-To define a 'variable' as something that is changeable
-To explain why a variable is used in a program
-To choose how to improve a game by using variables
-To design a project that builds on a given example
-To use my design to create a project
-To evaluate my project

Online Bullying

I can describe how to capture bullying content as evidence (e.g screen-grab, URL, profile) to share with others who can help me

I can explain how someone would report online bullying in different contexts

Year 6 - Data and information - Introduction to Spreadsheets Google Slides

- -To create a data set in a spreadsheet -To build a data set in a spreadsheet
- -To explain that formulas can be used to produce calculated data
- -To apply formulas to data -To create a spreadsheet to plan an event
- -To choose suitable ways to present data

Managing Online Information

I can explain how to use search technologies effectively.

I can identify, flag and report inappropriate content

Year 6 - Creating media - 3D Modelling tinkercad.com

- -To recognise that you can work in three dimensions on a computer
 -To identify that digital 3D objects can be modified
- -To recognise that objects can be combined in a 3D model -To create a 3D model
- -To create a 3D mode for a given purpose -To plan my own 3D model
- -To create my own digital 3D model

Privacy and Security

I can describe simple ways to increase privacy on apps and services that provide privacy settings

I can describe ways in which some online content targets people to gain money or information illegally; I can describe strategies to help me identify such content

Year 6 programming B — Sensing Movement (microbit)

- -To create a program to run on a controllable device
- -To explain that selection can control the flow of a program
- -To update a variable with a user input
- -To use a conditional statement to compare a variable to a value -To design a project that
- uses inputs and outputs on a controllable device -To develop a program to use inputs and outputs

Online Reputation

on a controllable device

I can explain the ways in which anyone can develop a positive online reputation

I can explain strategies anyone can use to protect their 'digital personality' and online reputation, including degrees of anonymity.

Using technology:

- increasingly develop their independence and confidence in using these devices.
- typing speed at least 20WPM
- make sensible choices about the technology they use to enhance and help them with their work, and to justify their choices
- make sharp, alert, secure, kind and brave online choices to help us to be internet legends.