Computing Progression Grid Year 2 2024-2025

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Unit	Technology around us. iSafe	iBlog Digital Photography	iAnimate	iSearch Programming A	iPublish	Programming B

Technology around us. (Teach computing)		
Knowledge	**Skills**	**National Curriculum**
To recognise the uses and features of information technology. I can identify examples of computers. I can describe some uses of computers. I can identify that a computer is a part of IT. **To identify the uses of information technology in the school.** I can identify examples of IT. I can sort school IT by what it's used for. I can identify that some IT can be used in more than one way. **To identify information technology beyond school.** I can find examples of information technology. I can sort IT by where it is found. I can talk about uses of information technology. **To explain how information technology helps us.** I can recognise common types of technology. I can demonstrate how IT devices work together. I can say why we use IT . **To explain how to use information technology safely.** I can list different uses of information technology. I can talk about different rules for using IT. I can say how rules can help keep me safe. **To recognise that choices are made when using information technology.**	To recognise different types of computers used in schools. To describe some uses of computers. To identify that a computer isa part of information technology. To recognise the features if information technology. To identify information technology in school. To identify information technology beyond school. To talk about uses of information technology. To say how rules for using information technology can help us. To explain how information technology benefits us. To recognise that choices are made when using information technology. To show how to use information technology safely.	Use technology purposefully to create, organise, store, manipulate, and retrieve digital content. Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

I can identify the choices that I make when using IT.		
I can use IT for different types of activities.		
I can explain the need to use IT in different ways.		

Vocab	Key Questions:
Information technology (IT), computer, barcode, scanner/scan	Can you give me some examples of technology?
	What can you use a computer for?

Cross Curricular Links:

Computing
● Use technology purposefully to create, organise, store, manipulate, and retrieve digital content
● Recognise common uses of information technology beyond school
● Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies

Education for a Connected World links
Health, well-being, and lifestyle
• I can say how those rules / guides can help anyone accessing online technologies

Maths
● add and subtract numbers using concrete objects, pictorial representations, and mentally (Lesson 4)

Progression: This unit progresses learners' understanding of technology and how they interact with it. They will develop this understanding to become familiar with the term information technology and will be able to identify common features of IT. This unit also builds on the learners' understanding of using technology safely and responsibly.

Unit: iSafe e- safety

Knowledge	Skills	National Curriculum
*I can explain why I shouldn't open an email or attachment without permission. *I can talk about why I should not talk to strangers online. *I can use ICT to communicate online. *I can talk about some ways I can stay safe when using technology. *I know that some websites are aimed at me and some are better for what I am looking for. *I understand the need to treat others as I would like to be treated online. *I know that some people are not nice online and can bully. *I can talk about when I would need to tell a trusted adult about something online. * I can search for things online. *I know that some websites are aimed at me and some are better for what I'm looking for	*Identify some ways they can keep themselves safe when using ICT. *Use ICT to communicate, identify some of the risks and act to minimise them *To understand what personal information means. * To understand that personal information is unique to themselves. *To understand that personal information should only be given to trusted adults. *To understand that not everyone you meet is trustworthy. *To begin to identify the characteristics of people who are worthy of trust and who can help them make choices that keep them safe. *Identify a risky situation when a trusted adults help be needed. *To understand that emotions can be a tool to help judge unsafe situations. *To know how physical sensations can alert us to unsafe situations. *To understand the importance of checking with an adult before participating in an online environment. *To begin to be open with trusted adults about online experiences	*Use technology safely and respectfully, keeping personal information private, identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies *Recognise common uses of information technology beyond school

Vocab	Key Questions
Personal, information, trust, safe, online, trustworthy, untrustworthy, emotion, fear, panic, anxious, nervous, happy, excited, safe, safety	*What is personal information?* *Name, addresses, phone number, photographs, hobbies, username, password etc. Who would you share personal information with?* *Someone trustworthy* *When might you need a trusted adults help?* *E.g. when you're lost, when you're being bullied.* *What might you feel in an unsafe situation?* *E.g. nervous, shaking, hands/legs, heart beating faster, short of breath etc*

Cross Curricular Links
PHSE, Citizenship

iBlog

Knowledge	Skills	National Curriculum
*I can use a username and password to access a blog. *I can write a sentence that build on things others have written. * I can post a comment on the class blog responding to a post or comment. *I can post to a blog expressing an opinion *I can justify my opinion *I can write a blog post about a topic they know. *Review posts they have previously written and choose examples of good blog posts.	*To Know what a blog is and how it will be used in the classroom. *To log in to the class blog. * To respond to the writing of others. *To post on a blog. *To respond to someone else's post on the class blog. *Explain what you think and why. *To use a blog to demonstrate and share learning. *To reflect on work and make improvements *Identify some ways they can keep themselves safe when using ICT. *Use ICT to communicate, identify some of the risks and act to minimise them.	*Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals

Vocab	Key Questions
Blog, online, website, text, images, audio, video, webpage, hyperlink, login, username, password, post, response, comment, publish, communicating, evidence.	

Cross Curriculum Links

English, Cross-curricular topics

Digital Photography (teach computing)

Knowledge	Skills	National Curriculum
To use a digital device to take a photograph. ● I can recognise what devices can be used to take photographs ● I can talk about how to take a photograph ● I can explain what I did to capture a digital photo **To make choices when taking a photograph** ● I can explain the process of taking a good photograph ● I can take photos in both landscape and portrait format ● I can explain why a photo looks better in portrait or landscape format **To describe what makes a good photograph.** ● I can identify what is wrong with a photograph ● I can discuss how to take a good photograph ● I can improve a photograph by retaking it **To decide how photographs can be improved.** ● I can explore the effect that light has on a photo ● I can experiment with different light sources ● I can explain why a picture may be unclear **To use tools to change an image.** ● I can recognise that images can be changed ● I can use a tool to achieve a desired effect ● I can explain my choices **To recognise that photos can be changed.** ● I can apply a range of photography skills to capture a photo ● I can recognise which photos have been changed ● I can identify which photos are real and which have been changed	To recognise that some digital devices can capture images using a camera. To capture a digital image. To talk about how to take a photograph. To recognise that photographs can be saved and viewed later. To take photographs in both landscape and portrait format. To make choices when composing my photograph. To view photographs on a digital device. To recognise features of good photographs. To decide which photographs to keep. To identify how a photograph could be improved. To explain the effects of light on a photograph. To hold the camera still to take a clear photograph. To use zoom to change the composition of a photograph. To consider lightening before taking a photograph. To recognise that photographs can be changed after they have been taken. To recognise that some images are not accurate. To use simple editing tools to change the appearance of a photograph. To improve a photograph by retaking it.	Use technology purposefully to create, organise, store, manipulate, and retrieve digital content. Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.
Vocab device, camera, photograph, capture, image, digital, landscape, portrait, framing, subject, compose, light sources, flash, focus, background, editing, filter, format, framing, lighting,	**Key Questions** How do you hold a camera? Which way do you hold a camera for a portrait camera? Which filter do you prefer?	

Progression: This unit begins the learners' understanding of how photos are captured and can be manipulated for different purposes. Following this unit, learners will develop their photo editing skills in Year 4.

Cross Curricular Links

Computing
- Use technology purposefully to create, organise, store, manipulate, and retrieve digital content
- Recognise common uses of information technology beyond school
- Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies

Art and design
- To develop a wide range of art and design techniques in using colour, pattern, texture, line, shape, form, and space (Lessons 4 and 5)

iAnimate

Knowledge	Skills	National Curriculum
• I can create a flipping book. • I can create a character description for fairy tale. *I can create a storyboard for a short stop frame animated sequence • I can create a script to retell a short, animated scene of a fairy tale. *I can create the backgrounds and characters for my animation. *I can use a storyboard and script to support the creation of a stop frame animation.	*Navigate a document using arrow keys and a mouse. *Use the backspace button and delete button to remove text. *Use tools to create simple presentations that communicate meaning. *Make choices about applications and tools to use for a particular purpose. *Locate, edit and save different versions of their work. *Navigate around a website using hyperlinks and the back button. *Type web addresses into the web browser. *Create internet favourites *Understand what an animation is. *Understand the premise of a stop-frame animation. *Understand that animation consists of characters, a stage, props, sound, text and a story. Understand the importance of a storyboard in the story planning process. *Create own storyboard. *Understand that animation needs to be scripted. *Understand stop-frame animations involve physical characters, settings and props.	* To use technology purposefully to create, organise, store, manipulate and retrieve digital content.

	*Work collaboratively in a group to achieve a common goal. Create a stop- frame animation	

Vocab Animation, scene, script, motion, storyboard, props, stop motion, image, movie, character, flip book, stage, background, sound, audio, text	**Key Questions** Who are your characters? What is happening in this scene? How do you make things seem to move? What props are you using?

Progression .	**Cross Curricular Links** English, Art/Design, History, Mathematics, Science	

iSearch

Knowledge	**Skills**	**National Curriculum**
*I can find and move around a website. *I can use the information on a website to answer a question. *I can order things using information found on line. *I can collect information from part of a website and present my findings. *I can create a page for a class book.	*Understand that the world wide web contains large amounts of information. *To use links to navigate a website. *To know that the world wide web can be used to answer questions. *To navigate a website using hyperlinks. *To locate specific information using a website. *To collect information from a number of different online sources and check they are the same.	* Use technology purposefully to create, organise, store, manipulate and retrieve digital content. *Use technology safely and respectfully, keeping personal information private, identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies
Vocab World Wide Web, Network, internet, hyperlink, search, URL, website, webpage, browsing, navigate, information, clue, solve, explore, scroll, research**.**	**Key Questions** What is the World Wide Web? *All of the web pages in the world connected to each other.* How can you find things online? *Knowing the address (URL) of a website or by searching.* Can you point out a hyperlink on this web page? *Words that are unlined or some images. The pointer can change to a hand when you hover over them.* How did you find this website or web page online?	

	What did you search for? What is the address of this website? *The search terms you entered in a search engine or by knowing the address. The URL in the address bar- sometimes starts with http or www*	
Progression	**Curriculum links** Science, English	

Programming A Robot algorithms (Teach Computing)

Knowledge	Skills	National Curriculum
-I can choose a series of words that can be enacted as a sequence - I can follow instructions given by someone else - I can give clear instructions -I can show the difference in outcomes between two sequences that consist of the same commands - I can use an algorithm to program a sequence on a floor robot - I can use the same instructions to create different algorithms -I can compare my prediction to the program outcome - I can follow a sequence - I can predict the outcome of a sequence -I can explain the choices I made for my mat design - I can identify different routes around my mat - I can test my mat to make sure that it is usable -I can create an algorithm to meet my goal - I can explain what my algorithm should achieve - I can use my algorithm to create a program" -I can plan algorithms for different parts of a task - I can put together the different parts of my program - I can test and debug each part of the program.	-To describe a series of instructions as a sequence. To choose a series of words that can be enacted as a sequence. -To explain what happens when we change the order of instructions. To choose a series of instructions that can be run as a program. To recognise that you can predict the outcome of a program. To recall that a series of instructions can be issued before they are enacted. To create a program. To trace a sequence to make a prediction. To run a program on a device. To debug a program that I have written.	Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs. use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

Vocab	Key Questions
instruction, sequence, clear, unambiguous, algorithm, program, order, prediction, artwork, design, route, mat, debugging, decomposition	

Progression: In advance of the lessons in this Year 2 unit, learners should have had some experience of creating short programs using floor robots and predicting the outcome of a simple program. This unit progresses learners' knowledge and understanding of algorithms and how they are implemented as programs on digital devices. Learners will spend time looking at how the order of commands affects outcomes. Learners will use this knowledge and logical reasoning to trace programs and predict outcomes.

 Cross Curricular Links

Computing

● Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions

● Create and debug simple programs

● Use logical reasoning to predict the behaviour of simple programs

Maths

Measure

● sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]

Geometry - position and direction

● describe position, direction and movement, including whole, half, quarter and three-quarter turns

iPublish

Knowledge	Skills	National Curriculum
*I can make a mind map about the World Wide Web *I can make a timeline of events in computing history. *I can design my own vision of futuristic technology. *I can create a presentation. *I can create a basic ebook. *I can refine ebooks to include multimedia.	*To understand the world wide web and how is has been developed throughout time. *To consider how technology changes with time. *To share knowledge through multi-media presentations *To plan/produce presentation of research findings. *To create an interactive eBook *choose a website based on how useful it is for a specific purpose. * demonstrate how they found specific information in a website. *Be discerning about the information collected from websites. *Select appropriate applications to help them achieve a specific task. *Can identify suitable information to present.	*Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals.
Vocab Website, world wide web, internet, link, connected, information, interact, past, present, future, similar, different, technology, input, devices, microchip, computer, memory, storage, mouse, keyboard, internet, email, eBook, multimedia, interact, audio, video, images, text, links,	**Key Questions** What is an eBook? What is he difference between the WWW and the Internet? Is all information on the World Wide Web reliable?	

Progression:

Cross Curricular Links
English, History

Programming B Programming Quizzes (teach computing)

Knowledge	Skills	National Curriculum
-I can identify that a program needs to be started - I can identify the start of a sequence - I can show how to run my program -I can change the outcome of a sequence of commands - I can match two sequences with the same outcome - I can predict the outcome of a sequence of commands -I can build the sequences of blocks I need - I can decide which blocks to use to meet the design - I can work out the actions of a sprite in an algorithm -I can choose backgrounds for the design - I can choose characters for the design - I can create a program based on the new design -I can build sequences of blocks to match my design - I can choose the images for my own design - I can create an algorithm -I can compare my project to my design - I can debug my program - I can improve my project by adding features.	To describe a series of instructions as a sequence. To choose a series of words that can be enacted as a sequence. To explain what happens when we change the order of instructions. To recall that a series of instructions can be issued before they are enacted. To choose a series if commands that can be run as a program. To use logical reasoning to predict the outcome of a program. To trace a sequence to make a prediction. To test a prediction by running the sequence. To create and debug a program that I have written. To run a program on a device.	Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs. Use technology purposefully to create, organise, store, manipulate, and retrieve digital content.
Vocab sequence, command, program, run, start, outcome, predict, blocks, design, actions, sprite, project, modify, change, algorithm, build, match, compare, debug, features, evaluate, decomposition, code.	**Key Questions**	

Progression: This unit progresses learners' knowledge and understanding of instructions in sequences and the use of logical reasoning to predict outcomes.

Cross Curricular Links
Computing

- Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions
- Create and debug simple programs
- Use logical reasoning to predict the behaviour of simple programs
- Use technology purposefully to create, organise, store, manipulate and retrieve digital content
- Use logical reasoning to predict the behaviour of simple programs

[Maths](#)
Measure
- sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]

Geometry - position and direction
- describe position, direction and movement, including whole, half, quarter and three-quarter turns