KS1 - Computing

Unit theme	Computing systems and networks	Creating Media	Programming A	Data and information	Creating media	Programming B
	Year 2					
Unit title	IT around us (2.1)	Digital photography (2.2)	Robot algorithms (2.3)	Pictograms (2.4)	Digital music (2.5)	Programming quizzes (2.6)
I know that/how to...	-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	-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	-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	-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	-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 our computer work	-To explain that a sequence of commands has a start -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
Vocabulary introduced/ embedded	Information technology (IT), computer Information technology (IT), computer, barcode, scanner/scan	Device, camera, photograph, capture, image, digital Landscape, portrait Framing, subject, compose Light sources, flash, focus, background Editing, filter Format, framing, lighting, focus, filter	Instruction, sequence, clear, unambiguous, algorithm, program Sequence, order, algorithm, instructions Sequence, prediction, program Artwork, design, route, mat Algorithm Debugging, algorithm, program, decomposition	More than, less than, most, least, organise, data, object, tally chart, votes, total Pictogram, enter, data, tally chart, compare, more than, less than, objects, count Tally chart, data, pictogram, explain, more, less, most, least, more common, least common Attribute, group, same, different, object, more than/less than, moAttribute, compare, tally chart, pictogram, more than, less than, most popular, least popular, conclusion st/least Tally chart, pictogram, block diagram, most, least, common, sharing, data	Music, planets, Mars, Venus, war, peace, quiet, loud, feelings, emotions Pattern, rhythm, pulse Neptune, pitch, tempo, rhythm, notes Pattern, notes, instrument, tempo Create, emotion, pitch, pulse/beat, tempo, instrument, rhythm, notes Open, edit	Sequence, command, program, run, start Sequence, command, outcome, predict, program, blocks Sprite, algorithm, blocks, design, sequence, predict Actions, sprite, project, blocks, design, sequence, modify, change Design, algorithm, build, sequence, blocks, match Compare, design, debug, program, features, evaluate

KS1 - E-Safety

	Year 2							
Unit title	Self-image & identity	Online Relationships	Online Reputation	Online Bullying	Managing Online Information	Health, Wellbeing and lifestyle	Privacy and security	Copyright and ownership
I know that/ how to...	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.	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 (e.g. email, online gaming, a pen-pal in another school/country). I can explain who I should ask before sharing things about myself or others online. 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. I can explain why I have a right to say, 'no' or 'I will have to ask someone'. I can explain who can help me if I feel under pressure to agree to something I am unsure about or don't want to do. I can identify who can help me if something happens online without my consent. I can explain how it may make others feel if I do not ask their permission or ignore their answers before sharing something about them online. I can explain why I should always ask a trusted adult before clicking 'yes', 'agree' or 'accept' online.	I can explain how information put online about someone can last for a long time. I can describe how anyone's online information could be seen by others. I know who to talk to if something has been put online without consent or if it is incorrect.	I can explain what bullying is, how people may bully others and how bullying can make someone feel. I can explain why anyone who experiences bullying is not to blame. I can talk about how anyone experiencing bullying can get help.	I can use simple keywords in search engines. I can demonstrate how to navigate a simple webpage to get to information I need (e.g. home, forward, back buttons; links, tabs and sections). I can explain what voice activated searching is and how it might be used, and I know it is not a real person (e.g. Alexa, Google Now, Siri). 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.	I can explain simple guidance for using technology in different environments and settings (e.g. accessing online technologies in public places and the home environment). I can say how those rules/ guides can help anyone accessing online technologies.	I can explain how passwords can be used to protect information, accounts and devices. I can explain and give examples of what is meant by 'private' and 'keeping things private'. 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 (e.g. lights, fridges, toys, televisions).	I can recognise that content on the internet may belong to other people. I can describe why other people's work belongs to them.
Vocabulary introduced/ embedded	Online, offline Risk Online, emotions, avatar, identity, privacy, risk, trusted adult	Permission, online, trusted adult Online, consent, trusted adult Mood, online, options, decisions	Online, search, forever, digital, content, tab Information, profile, safer, username Trusted adult, sign up, information, online	Upset, unkind, behaviour, uncomfortable, nervous, embarrassed Bullying, self esteem, self love, fault, responsible, blame Trusted adult, support, advice, insecure	Webpage, home button, back button, forward button, links, tabs, sections, header, main body, footer, navigate, browser, scroll bars Search engine, voice activated, information, devic-	Danger, risk, happy, healthy, safe, rule, trusted adult Rule, danger, risk, happy, healthy, safe	Information, private Password, safe, private, login Internet, wifi, devices	Belongs to me, belongs to you, Copy, permission, original