

Computing Knowledge Pathway

An Introduction To Quizzes
Design, development and programming B. <https://rb.gy/6lplu>

Lower Key
Stage 2

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. (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. <https://rb.gy/zjyk7y>

Making Music
Design, development and creating media. <https://rb.gy/wofqgt>

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. <https://rb.gy/onlt3w>

Summer
Habitats & Living Things

Copyright and Ownership

I can recognise that content on the internet may belong to other people. I can describe why other people's work belongs to them. <https://rb.gy/6m6wlo>

Pictograms

Effective use of tools, data and information. <https://rb.gy/2ym0nx>

Privacy and Security

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). <https://rb.gy/pbaeak>

Robot Algorithms

Programming A and algorithms. <https://rb.gy/pqfndq>

Spring
Norman Invasion

Digital Photography

Creating media and effective use of tools. <https://rb.gy/ddntsy>

Health, Well-being and Lifestyle

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. <https://rb.gy/wmaxky>

Autumn
Journeys

IT Around Us

Computing systems and networks. <https://rb.gy/wdarp0>

Year 2

Online Bullying

I can describe how to behave online in ways that do not upset others and can give examples. <https://rb.gy/6p585p>

Introduction to Animation
Programming B, design and development. <https://rb.gy/2qajut>

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. <https://rb.gy/wkelcd>

Digital Writing

Creating media and effective use of tools. <https://rb.gy/mmmtgx>

Summer 1
Under the Sea

Online Relationships

I can give examples of when I should ask permission to do something online and explain why this is important. I can use the internet with adult support to communicate with people I know (e.g. video call apps or services). I can explain why it is important to be considerate and kind to people online and to respect their choices. I can explain why things one person finds funny or sad online may not always be seen in the same way by others. <https://rb.gy/iz0wyw>

Copyright and Ownership

I can explain why work I create using technology belongs to me. I can say why it belongs to me (e.g. 'I designed it' or 'I filmed it'). I can save my work under a suitable title / name so that others know it belongs to me (e.g. filename, name on content). I understand that work created by others does not belong to me even if I save a copy. <https://rb.gy/uo3isd>

Spring
Toy Story

Moving a Robot
Programming A and algorithms. <https://rb.gy/wmdy3s>

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. <https://rb.gy/9mlep6>

Grouping Data

Algorithms, data and information. <https://rb.gy/Ofi5uw>

Digital Painting

Creating media and effective use of tools. <https://rb.gy/qcko7m>

Privacy and Security

I can explain that passwords are used to protect information, accounts and devices. I can recognise more detailed examples of information that is personal to someone (e.g. where someone lives and goes to school, family names). I can explain why it is important to always ask a trusted adult before sharing any personal information online, belonging to myself or others. <https://rb.gy/f2qpb>

Technology Around Us

Computing systems and algorithms. <https://rb.gy/h0buhb>

Autumn
Our Local Area

Year 1

Programming B

Daisy the Dinosaur (see planning on drive). I can use a mouse, touch screen or appropriate access device to target and select options on screen. I can input a simple sequence of commands to control a digital device with support.

Data

Carry out a simple survey and record on Purplemash 2graph. Sort or group items and record over a digital image or video explaining what has been done. I can identify a chart. I can sort physical objects, take a picture and discuss what I have done. I can present simple data on a digital device.

Creating media: video creation

Record a film on topic being learnt using camera app. Use Shadow Puppets EDU to import images and talk over. I know the difference between a photography and video. I can record a short film using the camera. I can record and play a film. I can watch films back.

Spring 2
Spring Into Life

Online Bullying

I can describe ways that some people can be unkind online. I can offer examples of how this can make others feel. <https://rb.gy/lmc65r>

Summer 1
African Safari

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. <https://rb.gy/asf7ee>

Summer 2
We Are Scientists

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. <https://rb.gy/p4psza>

Online Reputation

I can identify ways that I can put information on the internet. <https://rb.gy/lo2kjj>

Programming A:

Unplugged leading to Cubetto: I can follow simple oral algorithms. I can spot simple patterns. I can sequence simple familiar tasks. <https://rb.gy/bddg2d>

Spring 1
People Who Help Us

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. <https://rb.gy/y0hjzd>

Creating Media: digital photography/video editing

Use Chatterpix Kids on iPads to take a photo and record information about it or do a simple retelling of a story. I can dictate short, clear sentences into a digital device. I can record sounds with different resources. I can find ways to change your voice (tube, tin can, shouting to create an echo). I can record sounds/voices in storytelling and explanations.

Self-Image and Identity

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. <https://rb.gy/qpmhl>

Autumn 1 All
About Me

Computing Systems and Networks

Effective use of tools and creating media. Recognise that a range of technology is used in different places; select and use technology for different purposes. Use tech in CIL; take photos, record videos, access mini-mash. I can play on a touch screen game and use computers/keyboards/mouse in role play. I can type letters with increasing confidence using a keyboard and tablets.

EYFS:
Reception &
Nursery

Computing Knowledge Pathway

Upper Key Stage 2

Health, Well-being and Lifestyle

I can explain how using technology can be a distraction from other things, in both a positive and negative way. I can identify times or situations when someone may need to limit the amount of time they use technology, e.g. I can suggest strategies to help with limiting this time. <https://rb.gy/kxxvnlm>

Repetition in Games

Design, development and programming, B. <https://rb.gy/80lj7c>

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 describe how to search for information within a wide group of technologies and make a judgement about the probable accuracy (e.g. social media, image sites, video sites). I can describe some of the methods used to encourage people to buy things online (e.g. advertising offers; in-app purchases, pop-ups) and can recognise some of these when they appear online. I can explain why lots of people sharing the same opinions or beliefs online do not make those opinions or beliefs true. 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. I can explain what is meant by fake news e.g. why some people will create stories or alter photographs and put them online to pretend something is true when it isn't. <https://rb.gy/86sOqt>

Photo Editing
Creating media and effective use of tools. <https://rb.gy/jtai3j>

Summer Rainforests

Online Bullying

I can recognise when someone is upset, hurt or angry online. I can describe ways people can be bullied through a range of media (e.g. image, video, text, chat). 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). <https://rb.gy/jnqivd>

Data Logging

Computing systems, data and information. <https://rb.gy/ksbctw>

Online Relationships

I can describe strategies for safe and fun experiences in a range of online social environments (e.g. livestreaming, gaming platforms). I can give examples of how to be respectful to others online and describe how to recognise healthy and unhealthy online behaviours. 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. <https://rb.gy/ruihxse>

Spring The Romans in Britain

Repetition in Shapes

Algorithms and programming, A. <https://rb.gy/tb8vis>

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. <https://rb.gy/jplxkt>

Year 4

Autumn Volts & Vibrations

The Internet
Computing systems, and networks, Security, and safety. <https://rb.gy/cbrmze5>

Self-Image and Identity

I can explain how my online identity can be different to my offline identity. I can describe positive ways for someone to interact with others online and understand how this will positively impact on how others perceive them. I can explain that others online can pretend to be someone else, including my friends, and can suggest reasons why they might do this. <https://rb.gy/anqxw0>

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. I can explain that if they are not sure or feel pressured then they should tell a trusted adult. I can describe how connected devices can collect and share anyone's information with others. <https://rb.gy/mxxxl0c>

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. <https://rb.gy/m3etpl>

Events and Actions
Design, development and programming, B. <https://rb.gy/o7r6ra>

Summer River Deep

Health, Well-being and Lifestyle

I can explain why spending too much time using technology can sometimes have a negative impact on anyone, e.g. mood, sleep, body, relationships. I can give some examples of both positive and negative activities where it is easy to spend a lot of time engaged (e.g. doing homework, games, films, videos). I can explain why some online activities have age restrictions, why it is important to follow them and know who I can talk to if others pressure me to watch or do something online that makes me feel uncomfortable (e.g. age restricted gaming or web sites). <https://rb.gy/elxe63>

Branching Databases

Effective use of tools, data and information. <https://rb.gy/ohwgern>

Managing Online Information

I can demonstrate how to use key phrases in search engines to gather accurate information online. I can explain what autocomplete is and how to choose the best suggestion. I can explain how the internet can be used to sell and buy things. 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, e.g. in videos, memes, posts, news stories etc. I can explain that not all opinions shared may be accepted as true or fair by others (e.g. monsters under the bed). I can describe and demonstrate how we can get help from a trusted adult if we see content that makes us feel sad, uncomfortable worried or frightened. <https://rb.gy/e6oqdl>

Online Bullying

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. <https://rb.gy/q8gdxj>

Spring Stone Age Bone Age

Sequence in Music

Design, development and programming, A. <https://rb.gy/sz6nguc>

Stop-Frame Animation

Creating media and effective use of tools. <https://teachcomputing.org/curriculum/key-stage-2/creating-media-animation>

Online Reputation

I can explain how to search for information about others online. I can give examples of what anyone may or may not be willing to share about themselves online. I can explain the need to be careful before sharing anything personal. I can explain who someone can ask if they are unsure about putting something online. <https://rb.gy/5anmoh>

Connecting Computers
Computing Systems and networks. <https://rb.gy/kje6p5>

Autumn Light & Dark

Year 3

Computing Knowledge Pathway

Key
Stage 3

Online Relationships

I can explain how sharing something online may have an impact either positively or negatively. I can describe how to be kind and show respect for others online including the importance of respecting boundaries regarding what is shared about them online and how to support them if others do not. I can describe how things shared privately online can have unintended consequences for others. e.g. screen-grabs. I can explain that taking or sharing inappropriate images of someone (e.g. embarrassing images), even if they say it is okay, may have an impact for the sharer and others; and who can help if someone is worried about this. <https://rb.gy/ungzig>

Google Be Internet Legends Unit Links - Lesson 6

Be Internet Kind - Respect Each Other (slides available via Google Drive shared link)

Sensing

Programming B and computer systems. <https://rb.gy/ttqkty>

Self-Image and Identity

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 describe issues online that could make anyone feel sad, worried, uncomfortable or frightened. I know and can give examples of how to get help, both on and offline. I can explain the importance of asking until I get the help needed. <https://rb.gy/ed6sma>

3D modelling

Creating media and effective use of tools. <https://rb.gy/vizzzy1>

Spring 2 & Summer 1
Victorians

Copyright and Ownership

I can demonstrate the use of search tools to find and access online content which can be reused by others. I can demonstrate how to make references to and acknowledge sources I have used from the internet. <https://rb.gy/6z4jzc>

Spreadsheets

Effective use of tools, data and information. <https://rb.gy/7pkpcz>

Health, Well-being and Lifestyle

I can describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose. I recognise and can discuss the pressures that technology can place on someone and how / when they could manage this. I can recognise features of persuasive design and how they are used to keep users engaged (current and future use). I can assess and action different strategies to limit the impact of technology on health (e.g. night-shift mode, regular breaks, correct posture, sleep, diet and exercise). <https://rb.gy/lzhkpz>

Web page creation

Design, development and creating media. <https://rb.gy/uvekmw>

Spring 1
Darwin

Variables in Games

Design, development and programming A. <https://rb.gy/7hhttps>

Google Be Internet Legends Unit Links - Lesson 4

Be Internet Alert - Check it's For Real (slides available via Google Drive shared link)

Privacy and Security

I can describe effective ways people can manage passwords (e.g. storing them securely or saving them in the browser). I can explain what to do if a password is shared, lost or stolen. I can describe how and why people should keep their software and apps up to date, e.g. auto updates. 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 (e.g. scams, phishing). I know that online services have terms and conditions that govern their use. <https://rb.gy/lantzr>

Managing Online Information

I can explain how search engines work and how results are selected and ranked. I can explain how to use search technologies effectively. I can describe how some online information can be opinion and can offer examples. I can explain how and why some people may present 'opinions' as 'facts'; why the popularity of an opinion or the personalities of those promoting it does not necessarily make it true, fair or perhaps even legal. I can define the terms 'influence', 'manipulation' and 'persuasion' and explain how someone might encounter these online (e.g. advertising and 'ad targeting' and targeting for 'fake news'). I understand the concept of persuasive design and how it can be used to influence peoples' choices. I can demonstrate how to analyse and evaluate the validity of 'facts' and information and. I can explain why using these strategies are important. I can explain how companies and news providers target people with online news stories they are more likely to engage with and how to recognise this. I can describe the difference between online misinformation and dis-information. I can explain why information that is on a large number of sites may still be inaccurate or untrue. I can assess how this might happen (e.g. the sharing of misinformation or disinformation). I can identify, flag and report inappropriate content. <https://rb.gy/3f4pox>

Internet Communication

Computing systems and networks. Effective use of tools. <https://rb.gy/uog5dr>

Autumn
Refugees

Year 6

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. I can explain how anyone can get help if they are being bullied online and identify when to tell a trusted adult. I can identify a range of ways to report concerns and access support both in school and at home about online bullying. I can explain how to block abusive users. I can describe the helpline services which can help people experiencing bullying, and how to access them (e.g. Childline or The Mix). <https://rb.gy/q5hzvj>

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. <https://rb.gy/nw3k6o>

Selection in Quizzes

Programming B and algorithms. <https://rb.gy/rmzsaB>

Google Be Internet Legends Unit Links - Lesson 3: Be Internet Sharp - Think Before You Share (slides available via Google Drive shared link)

Vector drawing

Creating media and effective use of tools. <https://rb.gy/6mucp8>

Summer
Ancient Greece

Online Relationships

I can give examples of technology specific forms of communication (e.g. emojis, memes and GIFs). I can explain that there are some people I communicate with online who may want to do me or my friends' harm. I can recognise that this is not my / our fault. I can describe some of the ways people may be involved in online communities and describe how they might collaborate constructively with others and make positive contributions (e.g. gaming communities or social media groups). I can explain how someone can get help if they are having problems and identify when to tell a trusted adult. I can demonstrate how to support others (including those who are having difficulties) online. <https://rb.gy/yjx0ta>

Flat File Databases

Data information and effective use of tools. <https://rb.gy/5nwdui>

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. <https://rb.gy/n6nrws>

Copyright and Ownership

I can assess and justify when it is acceptable to use the work of others. I can give examples of content that is permitted to be reused and know how this content can be found online. <https://rb.gy/yjqkhv>

Spring
Sieges, Settlements & Solutions

Selection in Physical Computing

Computer systems and programming. <https://rb.gy/tsuwr1>

Video editing

Design, development and creating media. <https://rb.gy/m4-qzgo>

Privacy and Security

I can explain what a strong password is and demonstrate how to create one. I can explain how many free apps or services may read and share private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others. I can explain what app permissions are and can give some examples. <https://rb.gy/r6et9>

Sharing information

Computing systems and networks. Effective use of tools. <https://rb.gy/0lwdgz>

Autumn
Forces of Nature

Year
5

Google Be Internet Legends Unit Links - Lesson 5

Be Internet Secure - Protect Your Stuff (slides available via Google Drive shared link)