

Brookvale Primary School

Computing Curriculum

Sequences of Learning



Year 1

Year 1: Autumn 1 Online Safety

Sequence of Learning (Key Questions/Key Assessment)

KQ1: What is the internet?

KQ2: What different feelings might we have when using the internet?

KQ3: How do we make sure we are kind online and in person?

Mid-Unit Assessment - Low-stakes quiz to inform T & L

KQ4: What do we mean by our digital footprint?

End of Unit Assessment: End of unit quiz

Year 1: Autumn 2 Computer Systems and networks: Improving mouse skills

Sequence of Learning (Key Questions/Key Assessment)

KQ1: How do we log in to a computer and access a website?

KQ2: How do we use click and drag to develop our mouse skills?

KQ3: How do we create Kandinsky style art on the computer?

Mid-Unit Assessment - Low-stakes quiz to inform T & L

KQ4: How do we use digital painting techniques to create pictures?

KQ5: What is 'decomposition' and how does this link to digital self-portraits?

End of Unit Assessment: End of unit quiz

Year 1: Spring 1 Programming 1: Algorithms Unplugged

Sequence of Learning (Key Questions/Key Assessment)

KQ1: What is an algorithm?

KQ2: How precise do instructions have to be for a successful algorithm?

KQ3: What is a virtual assistant?

Mid-Unit Assessment - Low-stakes quiz to inform T & L

KQ4: How does decomposition link to debugging algorithms?

KQ5: How do we debug algorithms?
End of Unit Assessment: End of unit quiz

Year 1: Spring 2

Programming 2: Bee-bot

Sequence of Learning (Key Questions/Key Assessment)
KQ1: What exciting things can we do with a beebot?
KQ2: How could we create a video to show how to use a beebot?
KQ3: What should we remember when planning and creating a set of instructions?
Mid-Unit Assessment - Low-stakes quiz to inform T & L
KQ4: How do we programme a beebot to reach an exact destination
KQ5: How do I create and de-bug a program to send the beebot to a specific destination?
End of Unit Assessment: End of unit quiz

Year 1: Summer 1

Creating Media: Digital Imagery

Sequence of Learning (Key Questions/Key Assessment)
KQ1: How can we use digital imagery to plan a story?
KQ2: How do we create clear photographic images?
KQ3: How can we use filters and other editing tools to enhance our digital images?
Mid-Unit Assessment - Low-stakes quiz to inform T & L
KQ4: How do we create something unique and creative using image libraries?
KQ5: How can we add text and decorative effects to create a high quality photo collage?
End of Unit Assessment: End of unit quiz

Year 1: Summer 2

Data: An introduction to Data

Sequence of Learning (Key Questions/Key Assessment)
KQ1: What different ways are there to represent data?
KQ2: How can we use technology to represent data in different ways?
KQ3: How do we collect, organise and record data about minibeasts?
Mid-Unit Assessment - Low-stakes quiz to inform T & L

KQ4: How can a branching database help us make our 'Guess Who' game?
KQ5: How can a 'computerised intervention' help us to gather and record data?
End of Unit Assessment: End of unit quiz

Year 2

Year 2: Autumn 1 Computing systems and networks 1: What is a computer?

Sequence of Learning (Key Questions/Key Assessment)
KQ1: What are the different components of a computer?
KQ2: How is technology controlled?
KQ3: How much do we rely on technology in our environment?
Mid-Unit Assessment - Low-stakes quiz to inform T & L
KQ4: What inputs and outputs can I include in my invention?
KQ5: How has technology become more efficient over time?
End of Unit Assessment: End of unit quiz

Year 2: Autumn 2 Programming 1: Algorithms and debugging

Sequence of Learning (Key Questions/Key Assessment)
KQ1: What does the word algorithm mean?
KQ2: What is artificial intelligence?
KQ3: What is a loop and how does it work?
Mid-Unit Assessment - Low-stakes quiz to inform T & L
KQ4: What is abstraction?
KQ5: How can I begin to debug a problem?
End of Unit Assessment: End of unit quiz

Year 2: Spring 1 Online Safety

Sequence of Learning (Key Questions/Key Assessment)

KQ1: What information is safe to be shared online?

KQ2: How do you create a strong password?

KQ3: Why is it important to ask for permission before posting information online?

Mid-Unit Assessment - Low-stakes quiz to inform T & L

KQ4: What can I do to keep myself safe online?

KQ5: Is all information online true?

End of Unit Assessment: End of unit quiz

Year 2: Spring 2 Computing systems and networks 2: Word processing

Sequence of Learning (Key Questions/Key Assessment)

KQ1: What are the most important keys on the keyboard when typing?

KQ2: How can I change the way text looks in Word?

KQ3: How can I insert an image into my work?

Mid-Unit Assessment - Low-stakes quiz to inform T & L

KQ4: How do I copy and paste using keyboard shortcuts?

End of Unit Assessment: End of unit quiz

Year 2: Summer 1 Programming 2: ScratchJr

Sequence of Learning (Key Questions/Key Assessment)

KQ1: What is ScratchJr?

KQ2: How do I use programming blocks?

KQ3: How do I use buttons and blocks?

Mid-Unit Assessment - Low-stakes quiz to inform T & L

KQ4: How can I use an algorithm to help me program?

KQ5: How do I use code to create an algorithm?

End of Unit Assessment: End of unit quiz

Year 2: Summer 2

Creating Media: Stop motion

Sequence of Learning (Key Questions/Key Assessment)

KQ1: What does animation mean?

KQ2: What is stop motion animation?

KQ3: How do you create a stop motion animation?

Mid-Unit Assessment - Low-stakes quiz to inform T & L

KQ4: What are the key components of stop motion animation?

KQ5: What is onion skinning?

End of Unit Assessment: End of unit quiz

Year 3

Year 3: Autumn 1

Computer Systems and Networks 1: Networks and the Internet

Sequence of Learning (Key Questions/Key Assessment)

KQ1: What is a network?

KQ2: How does information move around a network?

KQ3: How does the internet work?

Mid-Unit Assessment - Low-stakes quiz to inform T & L

KQ4: How does a router work?

KQ5: What is the role of a packet?

End of Unit Assessment: End of unit quiz

Year 3: Autumn 2

Online Safety

Sequence of Learning (Key Questions/Key Assessment)

KQ1: How can the internet be used to share beliefs, opinions and facts?

KQ2: What can I do if something on the internet has upset me?

Mid-Unit Assessment - Low-stakes quiz to inform T & L

KQ3: How can my personal information be shared online?

KQ4: Social Media: How to navigate it.

End of Unit Assessment: End of unit quiz

Year 3: Spring 1

Programming: Scratch

Sequence of Learning (Key Questions/Key Assessment)

KQ1: How do you use Scratch?

KQ2: How do you use a loop effectively?

KQ3: How can you add different blocks on Scratch?

Mid-Unit Assessment - Low-stakes quiz to inform T & L

KQ4: How do you debug a program?

KQ5: What is the purpose of an algorithm and how does it help us?

End of Unit Assessment: End of unit quiz

Year 3: Spring 2

Computer systems and networks 2: Emailing

Sequence of Learning (Key Questions/Key Assessment)

KQ1: What is good about email as a form of communication?

KQ2: How do you reply to an email?

KQ3: How can you use positive language outside of writing emails, either while writing digital messages or in real life?

Mid-Unit Assessment - Low-stakes quiz to inform T & L

KQ4: What is cyberbullying?

KQ5: How can we spot spam emails?

End of Unit Assessment: End of unit quiz

Year 3: Summer 1

Computer systems and networks: Journey inside a computer

Sequence of Learning (Key Questions/Key Assessment)

KQ1: Why does a computer need inputs and outputs?

KQ2: What is inside a laptop?

KQ3: What do CPU and GPU do?

Mid-Unit Assessment - Low-stakes quiz to inform T & L

KQ4: What is the purpose of the components in a laptop?

KQ5: Does a tablet need a CPU?

End of Unit Assessment: End of unit quiz

Year 3: Summer 2

Creating Media: Video Trailers

Sequence of Learning (Key Questions/Key Assessment)

KQ1: How do sound effects and music change the overall effect of a video?

KQ2: How do you create a voiceover?

KQ3: How do you finker with editing software?

Mid-Unit Assessment - Low-stakes quiz to inform T & L

KQ4: What is a 'transition'?

KQ5: What makes a successful video?

End of Unit Assessment: End of unit quiz

Year 4

Year 4: Autumn 1

Programming 1: Further coding with Scratch

Sequence of Learning (Key Questions/Key Assessment)

KQ1: What are the key features of Scratch?

KQ2: What does decomposition mean?

KQ3: What is a variable?

Mid-Unit Assessment - Low-stakes quiz to inform T & L

KQ4: How can we create a variable in Scratch?

KQ5: How can we use variables to create a quiz?

End of Unit Assessment: End of unit quiz

Year 4: Autumn 2
Creating Media: Website design

Sequence of Learning (Key Questions/Key Assessment)

KQ1: What is the difference between a web page and a website?

KQ2: Why do we have to use images that are marked for 'commercial reuse and modification'?

KQ3: How can you transform a word document into a web page?

Mid-Unit Assessment - Low-stakes quiz to inform T & L

KQ4: What information do you think is important to share on your website?

KQ5: Can I use all my knowledge to create a Microsoft Sway web page?

End of Unit Assessment: End of unit quiz

Year 4: Spring 1
Online Safety

Sequence of Learning (Key Questions/Key Assessment)

KQ1: How accurate is the information we find online?

KQ2: What are in-app purchases and pop ups?

KQ3: Should I believe everything I read online?

Mid-Unit Assessment - Low-stakes quiz to inform T & L

KQ4: What is a 'bot'?

KQ5: Should I limit the amount of time I spend using technology?

End of Unit Assessment: End of unit quiz

Year 4: Spring 2

Skill showcase: HTML

Sequence of Learning (Key Questions/Key Assessment)

KQ1: What is HTML?

KQ2: How do you change HTML code?

KQ3: What does CSS stand for?

Mid-Unit Assessment - Low-stakes quiz to inform T & L

KQ4: How do you use the inspect elements tool?

KQ5: Why is it useful to be able to alter text on a webpage?

End of Unit Assessment: End of unit quiz

Year 4: Summer 1

Programming 2: Computational thinking

Sequence of Learning (Key Questions/Key Assessment)

KQ1: What is computational thinking?

KQ2: How can I use decomposition to solve problems?

KQ3: How can you abstract key information?

Mid-Unit Assessment - Low-stakes quiz to inform T & L

KQ4: What is the best algorithm for drawing a square?

KQ5: Can I combine my skills to solve a problem?

End of Unit Assessment: End of unit quiz

Year 4: Summer 2

Data Handling: Investigating weather

Sequence of Learning (Key Questions/Key Assessment)

KQ1: How can we use excel to collect data?

KQ2: What is sensor data?

KQ3: What's the best algorithm to use to collect data?

Mid-Unit Assessment - Low-stakes quiz to inform T & L
KQ4: Why might collaboration be more important to weather forecasters?
KQ5: How can we use IT to help us investigate weather?
End of Unit Assessment: End of unit quiz

Year 5

Year 5: Autumn 1 **Computer systems and networks: Search engines**

Sequence of Learning (Key Questions/Key Assessment)
KQ1: What is the difference between the internet and the world wide web?
KQ2: How do I check the validity of a website?
KQ3: What does the acronym TASK stand for?
Mid-Unit Assessment - Low-stakes quiz to inform T & L
KQ4: How do I credit people for information?
KQ5: What are web crawlers?
End of Unit Assessment: End of unit quiz

Year 5: Autumn 2 **Programming 1: Music**

Sequence of Learning (Key Questions/Key Assessment)
KQ1: What is Scratch all about?
KQ2: How do I use basic sound commands in Scratch?
KQ3: Why could loops be useful in creating a rhythm?
Mid-Unit Assessment - Low-stakes quiz to inform T & L
KQ4: How can loops help us when creating music?
KQ5: What skills do I need to debug?

End of Unit Assessment: End of unit quiz

Year 5: Spring 1 Data Handling: Mars Rover 1

Sequence of Learning (Key Questions/Key Assessment)

KQ1: Which type of data is transmitted from the Mars Rover to Earth?

KQ2: What is binary code?

KQ3: How does the RAM impact the processing of data?

Mid-Unit Assessment - Low-stakes quiz to inform T & L

KQ4: What is a bit pattern?

KQ5: How can you use binary code to create a message?

End of Unit Assessment: End of unit quiz

Year 5: Spring 2 Online safety

Sequence of Learning (Key Questions/Key Assessment)

KQ1: How do apps access our personal information?

KQ2: How and why do people use emojis, memes and GIFs?

KQ3: Is it right to form a judgement about someone based on what I read online?

Mid-Unit Assessment - Low-stakes quiz to inform T & L

KQ4: What is the difference between online and offline bullying?

KQ5: Where can I go for support if my wellbeing is being negatively affected by technology?

End of Unit Assessment: End of unit quiz

Year 5: Summer 1 Creating Media: Stop motion animation

Sequence of Learning (Key Questions/Key Assessment)

KQ1: What is animation all about?

KQ2: What is onion skinning?
KQ3: How do we create a stop-motion animation?
Mid-Unit Assessment - Low-stakes quiz to inform T & L
KQ4: Why is it important to keep the camera still?
KQ5: Why is it important to edit your animation?
End of Unit Assessment: End of unit quiz

Year 5: Summer 2

Programming 2: Micro:bit

Sequence of Learning (Key Questions/Key Assessment)

KQ1: What is a micro:bit?
KQ2: What is the difference between 'on start' and 'forever'?
KQ3: What are variables and how do we use them in coding?
Mid-Unit Assessment - Low-stakes quiz to inform T & L
KQ4: How could we turn our BBC micro:bit into a pedometer?
KQ5: What variables should we think about for the pedometer?
End of Unit Assessment: End of unit quiz

Year 6

Year 6: Autumn 1

Computing systems and networks: Bletchley Park

Sequence of Learning (Key Questions/Key Assessment)

KQ1: Can I crack the secret code?
KQ2: What is brute force hacking?
KQ3: How important was Bletchley Park in the war effort?
Mid-Unit Assessment - Low-stakes quiz to inform T & L

KQ4: Who is Alan Turing and why was he important?
KQ5: How would you embed a video or image into your presentation?
End of Unit Assessment: End of unit quiz

Year 6: Autumn 2

Creating media: History of computers

Sequence of Learning (Key Questions/Key Assessment)
KQ1: What are the key features of a radio play?
KQ2: How do you record, edit and add sound effects to a radio play?
KQ3: How have computers changed and what impact has this had?
Mid-Unit Assessment - Low-stakes quiz to inform T & L
KQ4: Are my sources of information reliable?
KQ5: What will computers be like 100 years from now?
End of Unit Assessment: End of unit quiz

Year 6: Spring 1

Programming: Intro to python

Sequence of Learning (Key Questions/Key Assessment)
KQ1: What is logo and how do I use it?
KQ2: What is a nested loop and how do we use them?
KQ3: What is python and how do I use it?
Mid-Unit Assessment - Low-stakes quiz to inform T & L
KQ4: What is syntax?
KQ5: What is conditional formatting and why do we use it?
End of Unit Assessment: End of unit quiz

Year 6: Spring 2

Data Handling: Big Data

Sequence of Learning (Key Questions/Key Assessment)

KQ1: How can data be safely transferred?

KQ2: Which is the safest method of data transfer?

KQ3: What is big data?

Mid-Unit Assessment - Low-stakes quiz to inform T & L

KQ4: How can I turn school into a smart school?

KQ5: How can I turn school into a smart school?

End of Unit Assessment: End of unit quiz

Year 6: Summer 1 Online Safety

Sequence of Learning (Key Questions/Key Assessment)

KQ1: What worries might someone have about going online?

KQ2: How can I keep myself safe online?

KQ3: How can I create a positive online reputation?

Mid-Unit Assessment - Low-stakes quiz to inform T & L

KQ4: How can you prove you are being bullied online?

KQ5: What is two factor authentication and why should we use it?

KQ6: How can you ensure your personal information is kept secure?

End of Unit Assessment: End of unit quiz

Year 6: Summer 2 Skill Showcase: Inventing a product

Sequence of Learning (Key Questions/Key Assessment)

KQ1: What objects around your house may need to use a programming element to make it work?

KQ2: What is meant by the phrase 'algorithm design structures'?

KQ3: What is CAD?

Mid-Unit Assessment - Low-stakes quiz to inform T & L

KQ4: What type of features would you expect to see on a website?

KQ5: What does abstraction mean?

KQ6: How do adverts influence, manipulate and persuade people?

End of Unit Assessment: End of unit quiz