Digital Life

STAGE 3

Use technology safely
Explain how to keep your account safe when using online tools.

Use technology responsibly
Explain why it's important to turn off electronic equipment when you are not using it.

Identify a range of ways to report concerns about content and contact
Recall where to get help from a trusted adult if something online is worrying.

Identify inappropriate content.

Identify inappropriate contact from people online.

Recognise acceptable online behaviour
Identify kind and respectful ways to communicate with others online, such as using polite words and emojis.

Explain why it's important to be nice online, even when you disagree with someone.

Demonstrate how to ask permission before sharing content or information about others.

Create a school code of conduct for using online tools.

STAGE 4

Identify a range of ways to report concerns about content and contact
Explain how to report inappropriate content.

Recognise unacceptable online behaviour
Identify cyberbullying.

Identify examples of unkind or hurtful behaviour online.

Recognise when it's wrong to exclude others in online games, chats, or social media.

Explain why it's wrong to send or share mean messages, pictures, or videos.

Identify how to give credit when using someone else's work, like photos, drawings, or ideas from the internet.

Use technology safely
Create a sensible username for an online tool.

Understand the opportunities networks offer for communication and collaboration
Describe how a network can be used for online communication.

Use technology respectfully
Use a collaborative online tool respectfully.

Comment respectfully on an online platform.

Use technology responsibly
Discuss who owns content created online.

STAGE 5

Use technology safely
Identify common risks when using digital devices, such as eye strain and repetitive strain injuries.

Understand the digital world around us
Identify safe and responsible ways to use digital devices, like setting time limits or asking permission before downloading apps or games.

Explain how different digital tools help keep us safe, such as parental controls, privacy settings, and reporting features on websites and apps.

Use technology safely
Create and use a strong password.

Setup privacy settings in an online platform.

Identify who can view information posted online.

Define digital footprint.

Explain the impact of others seeing a person's digital footprint online, including its effects on reputation and privacy.

Identify signs of online scams.

Recognise unacceptable online behaviour
Describe the risks of sharing personal information with people you don't know online.

STAGE 6

Identify a range of ways to report concerns about content and contact
Identify reporting tools on online platforms.

Understand the digital world around us
Identify ways in which digital tools (e.g., apps, social media) help us communicate respectfully with others.

Use technology safely
Evaluate the security of a website.

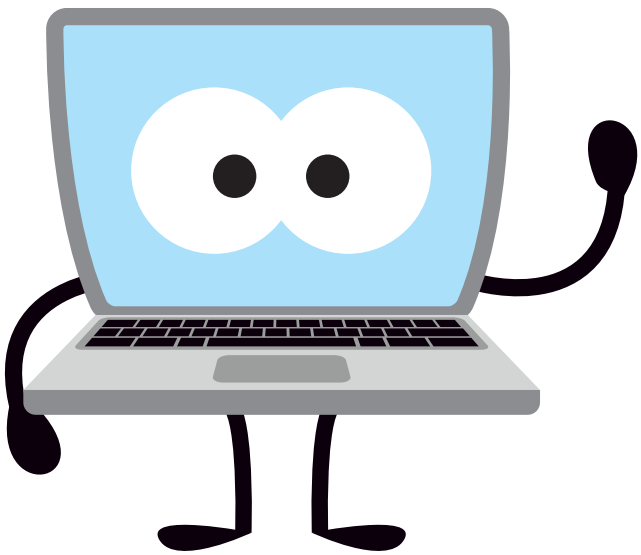
Define the term virus and list ways to protect against viruses.

Understand how computing is used to change the world
Identify examples of how technology are used in everyday life, such as in transport, communication, entertainment, and healthcare.

Identify examples of how technology is used in entertainment, like video games, films, and music.

Use technology responsibly
Identify environmental issues in how technology is used.

Understand how computing is used to change the world
Describe how technology is used to solve global problems, such as using data to track and respond to climate change.



COMPUTING SHED

Digital Devices

STAGE 3

Control physical systems or simulate physical systems
Define the term digital device as an electronic tool that can run programs.

Control physical systems or simulate physical systems
Identify digital devices in the school, home or community.

Define the term robot as a digital device programmed to carry out specific tasks in the physical world.

Identify examples where a robot is used in the world around us.

Describe the micro:bit as a digital device.

Explain that digital devices can be programmed to control physical systems.

Simulate a digital device to perform a task.

Collect data
Collect data for a tally chart.

Use software to create systems that accomplish specific goals
Use a micro:bit that has been programmed to perform a task.

STAGE 4

Identify a range of ways to report concerns about content and contact
Explain how to report inappropriate contact.

Control physical systems or simulate physical systems
Define hardware and software.

Describe a control system as hardware and software working together to carry out a task.

Identify the hardware components on the micro:bit.

Download a program to a micro:bit.

Use software to create systems that accomplish specific goals
Use a program that uses an input on a digital device to control an output.

Design a program that uses an input on a digital device to control an output.

STAGE 5

Control physical systems or simulate physical systems
Identify specific uses of sensors to detect input in the digital world.

Define that a sensor is a component that detects input from the physical environment.

Use software to create systems that accomplish specific goals
Use a program that reacts to sensor data.

Modify a program that reads data using a sensor.

Describe how an if block is used to check if a threshold is reached.

Simulate a program that reads data using a sensor.

Use and combine software to design systems that accomplish specific goals
Design a system with communication between a digital device and software.

Create a system with communication between a digital device and software.

STAGE 6

Understand computer networks
Define a computer network.

Discuss various types of networks and how devices communicate within them.

Explain the role of a wireless access point in a network.

Understand how the internet provides multiple services
Discuss how the internet allows digital devices to communicate as part of the internet of things.

Understand the opportunities networks offer for communication and collaboration
Compare the difference between WiFi and mobile networks.

Describe how the micro:bit uses WiFi and radio communication.

Control physical systems or simulate physical systems
Use the radio features of a micro:bit to explore how data can be transmitted and received across a network.

Use and combine software to design systems that accomplish specific goals
Design a system with communication between micro:bits.

Create a system with communication between micro:bits.

Explore Data

STAGE 3

Present information
Get information from a tally chart.

Present information from a table as a tally chart.

Present information from a table using a block diagram.

Present information from a table using a pictogram.

Present information using colour.

Present information from a table using a creative visualisation.

STAGE 4

Collect data
Create a form to collect data for a purpose.

Use a form to collect data for a purpose.

Present data
Create a table to collate data from a form.

Enter collected data into a table.

Sort the data in a table to organise it in a meaningful way (e.g., by name, age, or another relevant category) and use filters to display only certain records.

Present information
Present information from a table using a bar chart.

Analyse information
Use visualised information to ask and answer questions.

STAGE 5

Use search technologies effectively
Recall how to use search technologies effectively.

Be discerning in evaluating digital content
Recall how to evaluate the accuracy of digital content.

Evaluate information
Assess the reliability of information by considering the source and date of publication.

Collect information
Sort and filter relevant information from a dataset.

Add a field with set values to categorise information.

Present information
Create a line graph from a given dataset.

Analyse information
Examine collected information to identify patterns or trends that help answer a specific question or solve a problem.

Compare information from multiple sources to identify similarities, differences, or inconsistencies.

Evaluate information
Judge the relevance of information in relation to a given task or question, explaining why some details are more important than others.

STAGE 6

Collect data
Collect data using a sensor on the micro:bit.

Analyse information
Draw conclusions from the visualised information.

Present data
Present data from a micro:bit in a table.

Present information from a table using a line graph.

Analyse data
Analyse data from a micro:bit to identify patterns, outliers or inconsistencies.

Evaluate data
Assess the quality, accuracy and reliability of the data collected from the micro:bit.

Present information
Choose how to present information using a visualisation.

Evaluate information
Evaluate how well the information answers a question, supports a conclusion, or serves a specific purpose including the credibility and reliability of the original data collected.

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Create Content

STAGE 3

Use software to create content that accomplish specific goals
Use undo and redo in a drawing editor.

Use the circle and square tools to draw simple shapes in a drawing editor (SVG editor).

Change the properties of a circle and a square, such as fill and outline colours.

Combine circles and squares to create a character.

Group and ungroup shapes.

Use the text and line tools to label objects.

Resize and reshape squares and circles to change their appearance.

Choose a theme for a presentation.

Colour and resize text.

Insert an image into a slide.

Select an appropriate layout for a slide.

Add, duplicate and delete slides.

Add slide animations to a presentation.

Show a presentation in presentation view.

STAGE 4

Use software to design content that accomplish specific goals
Select a font and font size in a word processor.

Use bold, centre and underline in a word processor.

Use title, subtitle and headings in a word processor.

Use undo and redo in a word processor.

Use cut, copy and paste in a word processor.

Insert an image into a word processed document.

Use search technology effectively
Use search technology to find an image.

Understand how the internet provides the World Wide Web
Explain that a search engine allows you to search the World Wide Web.

Appreciate how search results are selected and ranked
Describe how search results are selected and ranked.

Be discerning in evaluating digital content
Identify reliable and unreliable digital sources.

Recognise bias in digital content.

Evaluate the accuracy of digital content.

Use search technologies effectively
Search for a fact using a web browser.

STAGE 5

Use software to create content that accomplish specific goals
Record a sound using a microphone.

Adjust the volume of a sound recording.

Edit a sound recording.

Copy, paste and delete clips from a sound file.

Combine selected music with a sound recording.

Combine software to design content that accomplish specific goals
Design a podcast, including the cover artwork.

Create a podcast, including the cover artwork.

STAGE 6

Use software to design content that accomplish specific goals
Select, copy, paste and delete clips from a video file.

Add a soundtrack to a video.

Add an image to a video.

Fade in and fade out clips in a video editor.

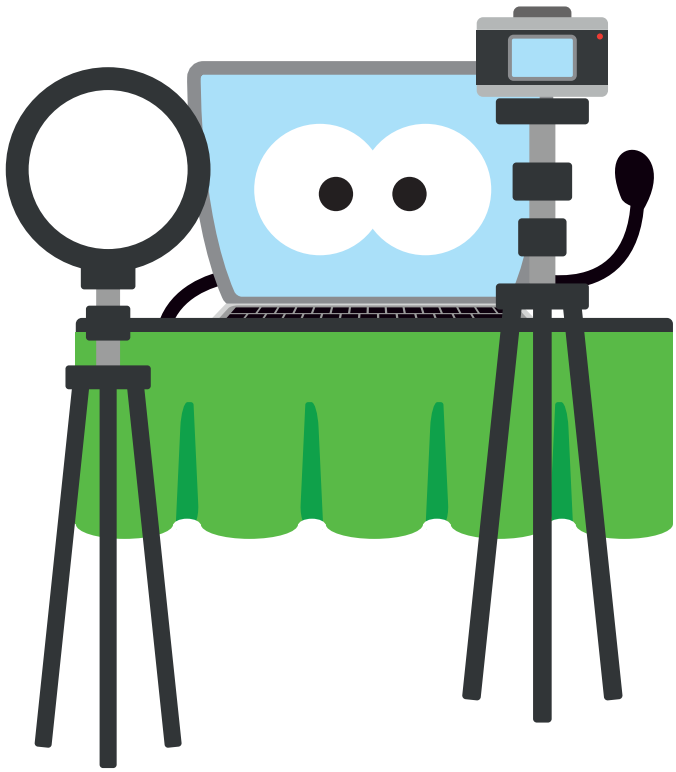
Record a video using a video recording device.

Import a video into a video editor.

Select software to design content that accomplish specific goals
Select appropriate software to support the design of a video production (e.g. word processor or slideshow).

Create a video production that uses a combination of software, such as importing a sound.

Create a video production that uses a combination of software, such as importing a sound.



COMPUTING SHED

Creative Coding

STAGE 3

Detect errors in algorithms
Recall that an algorithm is a set of instructions that are followed to solve a problem or perform a task.

Recognise when step-by-step instructions (algorithms) aren't giving the correct results.

Detect mistakes in step-by-step instructions (algorithms).

Correct errors in algorithms
Correct errors in step-by-step instructions (algorithms).

Use sequence in programs
Define a sequence as a set of instructions that are carried out in order.

Use a coding editor to create a scene with a backdrop, sprites and a sequence of code blocks.

Detect errors in programs
Detect the errors in a given ShedBlocks program.

Correct errors in programs
Correct the errors in a given ShedBlocks program.

Use events to control the flow of programs
Describe that events can be used to run blocks in a program.

Use input events to run blocks (sprite clicked, keyboard pressed, arrow tapped).

Solve problems by decomposing them into smaller parts
Break a task down into smaller steps to create a program.

Design programs that accomplish specific goals
Design a program that creates a sequence of blocks that run when an event happens.

Write a program that uses sequences and events.

Use logical reasoning to explain how some simple algorithms work
Describe the steps in an algorithm that lead to a specific outcome in a program.

STAGE 4

Use events to control the flow of programs
Explain that events in a program can trigger blocks to run.

Use the 'When background switches to' block to trigger blocks to run.

Use repetition in programs
Describe that repetition is used in programs to repeat a sequence of code.

Use a repeat loop (repetition) to repeat a sequence for a set number of times.

Use a forever loop (repetition) to repeat a sequence until the program is stopped.

Detect errors in programs
Detect an error in a program that uses repetition.

Use logical reasoning to explain how some simple algorithms work
Use logical reasoning to explain how changing steps in an algorithm can affect the outcome of a program.

Correct errors in programs
Correct an error in a program that uses repetition.

Solve problems by decomposing them into smaller parts
Decompose a program by identifying its key parts.

Design programs that accomplish specific goals
Design a program in ShedBlocks that uses repetition and events.

STAGE 5

Use concurrency to control the flow of programs
Explain that more than one script can run at the same time.
Use broadcasts to communicate between scripts.

Use selection in programs
Describe how an if statement/ if block can be used to check for a condition.

Use an if statement within a forever loop to continuously check whether something is true.

Use output with variables
Use a built in variable to display a message.

Produce different outputs based on the value of a variable.

Detect errors in programs
Identify errors in a ShedBlocks program that uses if statements.

Correct errors in programs
Correct errors in a ShedBlocks program that uses if statements.

Use logical reasoning to explain how some simple algorithms work
Use logical reasoning to explain how a simple algorithm achieves a specific outcome in a program.

Solve problems by decomposing them into smaller parts
Decompose a problem to identify where to use built-in variables, loops, and if statements.

Design programs that accomplish specific goals
Design a program for a goal that uses built-in variables, if statements and loops.

Write programs that accomplish specific goals
Write a program for a goal that uses built-in variables, loops and if statements.

STAGE 6

Work with variables
Make a variable in a ShedBlocks program.

Use input with variables
Use input events to change the value of a variable.

Detect errors in programs
Identify errors in a ShedBlocks program that uses loops, if statements and variables.

Correct errors in programs
Correct errors in a ShedBlocks program that uses loops, if statements and variables.

Use logical reasoning to explain how some simple algorithms work
With logical reasoning explain how an algorithm with loops, if statements and variables works.

Solve problems by decomposing them into smaller parts
Decompose a complex task that involves multiple sprites and scenes into smaller manageable parts.

Design programs that accomplish specific goals
Design a program that involves multiple sprites and scenes.

Write programs that accomplish specific goals
Modify a program that involves multiple sprites and scenes.

Showcase a program that involves multiple sprites and scenes.

Debug programs that accomplish specific goals
Debug a program that involves multiple sprites and scenes.

COMPUTING SHED

Change Your World

STAGE 3

Use software to design content that accomplish specific goals
Research interests/opinions to input into character design.

Use and combine software to create programs that accomplish specific goals
Create a character in the drawing editor.

Code a personalised character in ShedBlocks.

Reflect on feedback from an audience.

Use software to create content that accomplish specific goals
Insert a screenshot or video of a ShedBlocks project into a presentation.

Present a presentation to an audience.

STAGE 4

Use and combine software to design systems that accomplish specific goals
Research information for an interactive storybook.

Create a plan for an interactive storybook.

Reflect on feedback from users.

Showcase an interactive book.

Use and combine software to create systems that accomplish specific goals
Write a program for an interactive book.

Use a micro:bit to control an interactive book.

STAGE 5

Use software to design content that accomplish specific goals
Research healthy sound threshold levels.

Select software to design systems that accomplish specific goals
Create a plan for a sound monitor.

Choose how to visually represent the health of the sound.

Use software to create systems that accomplish specific goals
Write a program for the micro:bit sound sensor that includes an output.

Select software to design programs that accomplish specific goals
Extend a program to visually represent the sound sensor data in ShedBlocks.

Use and combine software to design systems that accomplish specific goals
Reflect on feedback from an audience.

Use and combine software to design systems that accomplish specific goals
Showcase a sound detector.

STAGE 6

Select, use and combine software to design systems that accomplish specific goals
Research challenges in the school community.

Collect data on a chosen challenge in the school community.

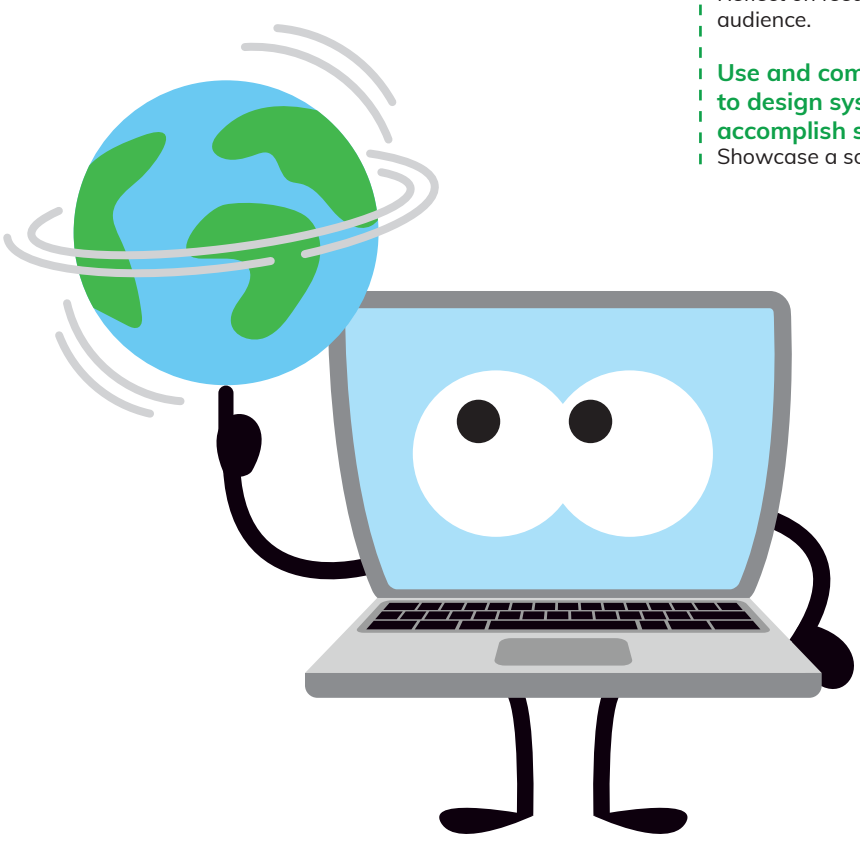
Present information on a chosen challenge in the school community.

Design a solution for a chosen challenge in the school community.

Select, use and combine software to create systems that accomplish specific goals
Create a solution for a chosen challenge in the school community.

Create and test a solution for a chosen challenge in the school community.

Showcase a solution to a challenge in the school community.



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AI In Your World

STAGE 3

Understand the digital world around us
Define artificial intelligence (AI).

Identify common examples of AI tools in everyday life.

Explain that AI is trained on data and learns from examples.

Define generative AI.

Define prompt.

Compare questions AI can answer well with those it cannot.

Explain that AI isn't human.

Understand how computing is used to change the world
Describe how AI can help people in real jobs and daily tasks.

Be discerning in evaluating digital content
Describe why the same prompt doesn't always give the same result.

Identify that AI can make mistakes or hallucinate information.

Use technology safely
Explain why personal information should not be entered into AI tools.

Recall rules and age restrictions for AI tools and why they exist.

Use software to create content that accomplishes specific goals
Identify respectful and responsible ways to use AI tools.

Use technology respectfully
Use a structured prompt to generate text with an AI tool.

STAGE 4

Understand the digital world around us
Describe that AI follows algorithms and uses training data.

Identify more examples of AI in the real world.

Define machine learning.

Explore how training data affects AI results.

Simulate training a machine learning model.

Recall generative AI and compare with machine learning.

Identify scenarios as ML or generative AI.

Explain why people use Gen AI to create images.

Understand how computing is used to change the world
Describe how AI is influencing existing jobs or creating new types of work.

Be discerning in evaluating digital content
Identify cues that suggest an image/video might be AI-generated (deepfakes).

Explain how deepfakes can mislead people.

Use technology respectfully
Explain why some AI-generated content can negatively impact other people.

Describe how to use AI tools safely by protecting personal information.

Use software to create content that accomplish specific goals
Identify elements of an effective prompt.

Use structured prompts to generate and refine AI images.

STAGE 5

Understand the digital world around us
Identify how historical developments in AI contribute to modern generative models.

Identify examples of AI systems used in real-world contexts, including examples from industry and daily life.

Explain why AI models may produce inaccurate, biased or misleading content.

Identify that chatbots do not think, feel or have emotions.

Describe why chatbots may present misleading impressions of understanding or emotion.

Refine prompts to improve clarity, relevance and accuracy in both text and image generation.

Be discerning in evaluating digital content
Explain that facial recognition accuracy depends on the quality and diversity of its training data.

Compare outputs from identical prompts and identify possible reasons for the differences.

Use technology responsibly
Identify respectful and responsible ways to use AI tools, including avoiding harmful content.

Describe what personal information should never be entered into an AI tool and explain why.

Explain how digital footprints apply when interacting with AI systems.

Use software to create content that accomplishes specific goals
Use structured prompts to generate text and images for a combined digital project.

Present digital projects.

STAGE 6

Understand the digital world around us
Identify examples of AI in the real world, including autonomous systems such as self-driving cars.

Explain why it is important to critically evaluate AI systems.

Explain that AI systems can adopt bias and stereotypes from the training data.

Explain that chatbots and AI assistants do not think or understand, even when responses are human-like.

Be discerning in evaluating digital content
Identify why AI is only as reliable as the data it has learned from.

Evaluate content created by generative AI tools and identify any bias.

Explain why it is important to critically evaluate AI generated content.

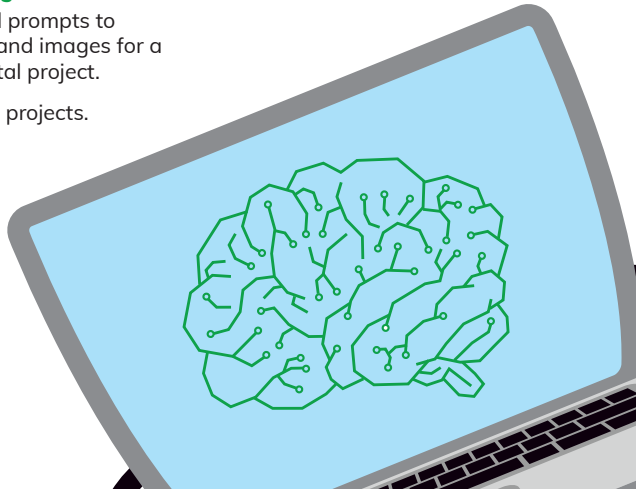
Explain risks of misinformation created or amplified by AI generated content.

Use technology respectfully
Identify the ethical considerations around AI usage, including copyright, creative integrity, environmental impact and careers.

Use software to create content that accomplishes specific goals
Generate and refine assets for a shedblocks project.

Generate text and images to advertise a shedblocks project using responsible practices.

Use technology safely
Explain the safe use of AI whilst creating a project



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