

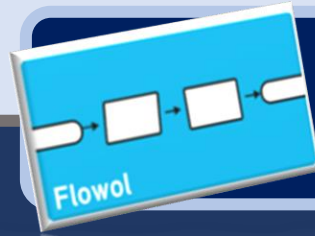
Computing Intention Map

Upper Key Stage Two



Intention Map 2024 - 2025

Placing learning at the heart of everything we do.



Term One (Flowol)



Learning Intentions

Week 1	<ul style="list-style-type: none"> Draw and interpret a flowchart with the correct symbols.
Week 2	<ul style="list-style-type: none"> Create and edit a flowchart to control a simulated device.
Week 3	<ul style="list-style-type: none"> Control multiple outputs at the same time.
Week 4	<ul style="list-style-type: none"> Use a decision symbol based on the status of an input.
Week 5	<ul style="list-style-type: none"> Create a flowchart program containing a subroutine.
Week 6	<ul style="list-style-type: none"> Design, write and debug my own flowchart program for a given task.

Assessment

Design, write and debug a flowchart program for a given task.

Knowledge Intentions

Week 1	<ul style="list-style-type: none"> Follow a sequence of written instructions in a flowchart. Draw a flowchart using the correct symbols. Connect symbols in a sequence.
Week 2	<ul style="list-style-type: none"> Insert symbols in sequence to create a working flowchart. Insert new symbols to modify a flowchart. Edit symbols to modify the effect. Delete symbols.
Week 3	<ul style="list-style-type: none"> Identify the conventional sequence for a set of traffic lights. Create a flowchart to program one set of traffic lights. Edit a flowchart to control two sets of traffic lights at the same time.
Week 4	<ul style="list-style-type: none"> Connect a decision symbol in a flowchart. Include the use of an input. Program different outputs based on the status of an input. Create a repeating loop.
Week 5	<ul style="list-style-type: none"> Create a subroutine separate to a main flowchart program. Call a subroutine from the main flowchart program. Call multiple subroutines within a program.
Week 6	<ul style="list-style-type: none"> Decompose a problem into smaller parts. Use repetition to check multiple inputs. Detect errors in a flowchart and correct them.

The IT Suite



Software: Flowol
Hardware: Laptops



National Curriculum

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.
- Use sequence, selection, and repetition in programs, work with variables and various forms of input and output.
- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.
- Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.
- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.
- 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, including collecting, analysing, evaluating and presenting data and information.
- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.



Term Two (Radio Station)



Learning Intentions

Week 1	• Use software to create my own sounds by recording, editing and playing.
Week 2	• Combine audio effects to create an original radio jingle.
Week 3	• Research and plan digital content for a radio podcast
Week 4	• Use software to create and present digital content for a radio podcast.
Week 5	• Design and record a persuasive radio advert for a product or service.
Week 6	• Present and evaluate audio content.

Assessment

Create a short radio show/podcast.

Knowledge Intentions

Week 1	<ul style="list-style-type: none"> • Name different devices (including input and output) used for sound recording. • Use a digital device to record voice. • Play back the recording and listen to it. • Delete and re-record sounds.
Week 2	<ul style="list-style-type: none"> • Import existing sounds. • Record my own voiceover in the style of a jingle. • Rehearse timings to combine two audio tracks. • Add effects to enhance a track.
Week 3	<ul style="list-style-type: none"> • Choose and use appropriate software for sound recording. • Describe what is meant by a podcast. • Plan appropriate audio information to use. • Rehearse and improve script ideas.
Week 4	<ul style="list-style-type: none"> • Choose and use appropriate software for sound recording. • Evaluate what features make good quality audio content. • Present audio information confidently and clearly. • Evaluate and improve recordings.
Week 5	<ul style="list-style-type: none"> • Evaluate what makes a good advert. • Plan the features of a good advert. • Use recording skills to record and present my own advert. • Analyse and identify improvements to an advert.
Week 6	<ul style="list-style-type: none"> • Present audio content for broadcast or download. • Identify positive features of audio content for radio. • Suggest improvements to audio content for radio. • Compare and contrast audio content for radio.

The IT Suite



Software: Audacity
Hardware: Laptops

National Curriculum

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Term Three (Online Safety)



Learning Intentions

Week 1	<ul style="list-style-type: none"> Find similarities and differences between bullying and cyberbullying. Identify good strategies to deal with cyberbullying.
Week 2	Identify secure websites by identifying privacy seals of approval.
Week 3	<ul style="list-style-type: none"> Understand the benefits and pitfalls of online relationships. Identify information that I should never share.
Week 4	Identify how the media play a powerful role in shaping ideas about girls and boys.
Week 5	Apply online safety knowledge to my online activities.
Week 6	Use knowledge of online safety to create a multiple-choice quiz.

Knowledge Intentions

Week 1	<ul style="list-style-type: none"> Say what bullying and cyberbullying are. Suggest ways in which people could deal with cyberbullying. Know why cyberbullying can be as harmful as in-person bullying.
Week 2	<ul style="list-style-type: none"> Look in the address bar of a website so check for security. Identify the lock symbol in an address bar. Find a link to a privacy policy. Understand why I should ask an adult if I am unsure. Identify warning signs that a website might not be secure.
Week 3	<ul style="list-style-type: none"> Identify personal information. Explain why someone might have an online friendship. Explain what to do if I am asked or Told something online which makes me uncomfortable. Explain some of the dangers of revealing personal information to an online friend.
Week 4	<ul style="list-style-type: none"> Know what a stereotype is. I can understand how a stereotype can be harmful. Compare gender stereotypes. Identify a gender stereotype in a media message.
Week 5	<ul style="list-style-type: none"> Identify a situation I should be careful in online. Choose an appropriate action online to stay safe. Know what the SMART acronym means.
Week 6	<ul style="list-style-type: none"> Recall what I have learnt about online safety. Use knowledge of online safety to help teach others.

Assessment

Use knowledge of Online Safety to design a multiple-choice quiz.

The IT Suite

Software: Internet Explorer, Google Chrome
Hardware: Laptops or tablets

National Curriculum

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Term Four (Scratch, Animated Stories)



Learning Intentions

Week 1	<ul style="list-style-type: none"> • Create appropriate animations.
Week 2	<ul style="list-style-type: none"> • Structure and control the timing of events.
Week 3	<ul style="list-style-type: none"> • Control when sprites are visible.
Week 4	<ul style="list-style-type: none"> • Plan a sequence of events to create a story narrative.
Week 5	<ul style="list-style-type: none"> • Sequence events to create a story narrative.
Week 6	<ul style="list-style-type: none"> • Voice sounds to enhance an animated story.

Assessment

Create an animated story controlling timings, sprite visibility, sequence of events and voice audio.

Knowledge Intentions

Week 1	<ul style="list-style-type: none"> • Select appropriate sprites to fit within a scene. • Use costume changes for a motion effect. • Use a repeat command to create gradual movement. • Use a succession of glide commands.
Week 2	<ul style="list-style-type: none"> • Use the broadcast message block. • Use the receive broadcast block. • Combine broadcasts in code to sequence actions.
Week 3	<ul style="list-style-type: none"> • Locate and insert the show and hide blocks into an algorithm. • Locate the correct place for a sprite to appear visible. • Make a sprite invisible when it is not active in the code.
Week 4	<ul style="list-style-type: none"> • Plan an animated story by selecting appropriate sprites and backdrops. • Plan the sequence of an animated story using timings. • Plan an algorithm to make sprites and backdrops work in a sequence.
Week 5	<ul style="list-style-type: none"> • Order a series of backdrop settings. • Narrate events with the required timing. • Use algorithms on sprites and backdrops to create a story.
Week 6	<ul style="list-style-type: none"> • Record voice sounds. • Insert blocks to play recordings. • Match the timing of sounds with speech bubbles.

The IT Suite



Software: Scratch
Hardware: Laptops



National Curriculum

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Term Five (Scratch 3.0, Developing Games)



Learning Intentions

Week 1	<ul style="list-style-type: none"> Design and program a character game.
Week 2	<ul style="list-style-type: none"> Design my own characters and backdrops.
Week 3	<ul style="list-style-type: none"> Add features or effects to enhance a game.
Week 4	<ul style="list-style-type: none"> Create an original animated game with a specific goal.
Week 5	<ul style="list-style-type: none"> Program costume changes for a sprite.
Week 6	<ul style="list-style-type: none"> Add point-scoring and levels to game code.

Assessment



Knowledge Intentions

Week 1	<ul style="list-style-type: none"> Draw a background using blocks to make a maze. Select and change a character (sprite). Program commands that control the movement of a sprite. Program consequences for specific actions.
Week 2	<ul style="list-style-type: none"> Draw a background using blocks to make a more complex maze. Use tools to draw my own character (sprite). Program commands that change the backdrop. Test and debug a program after making changes.
Week 3	<ul style="list-style-type: none"> Add appropriate commentary to a code. Add sounds as a consequence of an action. Create events as a consequence to another action. Make two characters move in relation to each other.
Week 4	<ul style="list-style-type: none"> Create appropriate backdrops and sprites. Plan sequences of instructions (an algorithm). Translate logical instructions into coding language (blocks). Test for errors and debug a code.
Week 5	<ul style="list-style-type: none"> Design new costumes for an existing sprite. Design code that switches from one costume to another. Add appropriate effects to complement a change of costume.
Week 6	<ul style="list-style-type: none"> Identify new features to be added to a game. Create a variable. Use code to increase the value of a variable. Add relevant messages that are linked to a final value.

The IT Suite



National Curriculum

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Term Six (Using & Applying Skills)



Learning Intentions

Weeks 1 - 6	<ul style="list-style-type: none"> Understand computer networks including the Internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration
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Knowledge Intentions

Week 1	<ul style="list-style-type: none"> Explain what a computer network is and how it works. Identify devices that connect to a computer network. Understand the advantages and disadvantages of using a computer network.
Week 2	<ul style="list-style-type: none"> know the difference between LAN (local area network), MAN (metropolitan area network) and WAN (wide area network) networks. Describe what the term topology means.
Week 3	<ul style="list-style-type: none"> Understand how a home network connects to a website. Identify protocols within a URL and know what they mean. Explain what packets and routing are.
Week 4	<ul style="list-style-type: none"> Identify the differences between the Internet and the World Wide Web. Explain what cloud computing is. Identify the advantages and disadvantages of cloud computing.
Week 5	<ul style="list-style-type: none"> Identify different broadband connections used to connect to the Internet. Describe what streaming is and provide examples of types of media that are streamed online.
Week 6	<ul style="list-style-type: none"> Identify different types of malware. Explain how malware can affect a computer network. Identify ways of minimising cybersecurity threats.

Assessment

Design a new game, using appropriate software to present information and advertise a product launch.

The IT Suite



Software: Microsoft Excel, Scratch, Kodu & Video Editing
Hardware: Laptops

National Curriculum

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