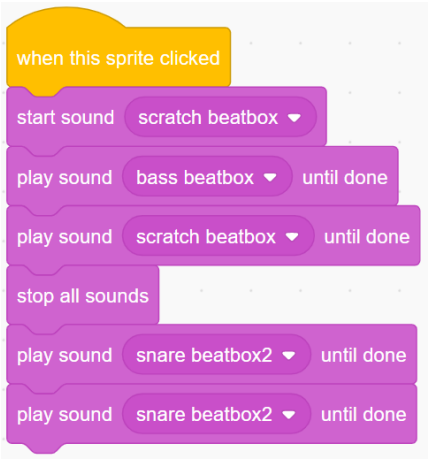
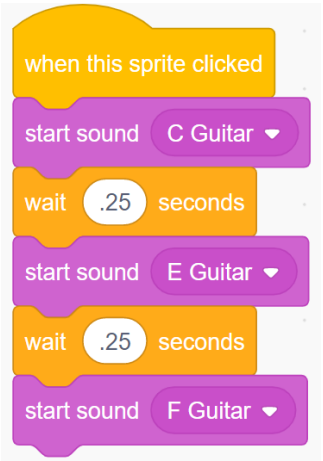
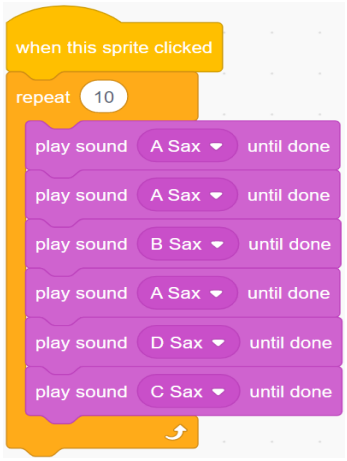
CREATE A BAND

You are expected to:

- Create multiple sprites that when clicked make music.
- Create sprites that make music when the user clicks on them.
- Code the musical instruments to repeat a tune when the word 'PLAY' is pressed.

Click the picture to go directly to the Making Music Project Page
or
Copy the link to go to the Scratch Project Tutorial Page
https://scratch.mit.edu/projects/editor/?tutorial=all

CREATING CODE

Programming the Beatbox	Programming A Song	Programming A Song To Repeat
		

LEARNING OUTCOMES

Success Criteria

- Before coding, I can write out to create a sequence of steps (in explicit sentences, flowcharts, storyboards or mind maps) how the code will work and what will happen in my Scratch project.
- I can use Scratch to create a digital solution using a visual programming platform.
- I can program user input into my code by the user clicking on different instruments and each musical instrument will play song.
- I can code the beat of the instruments to repeat a song.
- I can create my program so when I press play all instruments play the tune 'Happy Birthday' together and repeat it at least twice.

CURRICULUM KNOWLEDGE DEVELOPMENT

Teacher and Student Resources

To access these resources, join ACS ICT Educators Community for via: www.acs.org.au/join-ict.html

- ACS Teacher Resource: Algorithms
- ACS Teacher Resource: Visual Programming
- ACS Student Resource: Algorithms
- ACS Teacher Resource: Flowcharts

Australian Digital Technologies Curriculum

Assessment	
Content Descriptions Levels 5-6	**Assessment Statement**
Design, modify and follow simple algorithms involving sequences of steps, branching, and iteration (repetition) ACTDIP019	Students represented algorithms using a flowchart/written statements to show how their program in Scratch (programming musical instruments to play tunes) would operate. Students included the branching (multiple options), user input (user interacting with the program) and iteration (repeats) in the commands.
Implement digital solutions as simple visual programs involving branching, iteration (repetition), and user input (ACTDIP020)	Students used the visual programming platform Scratch to create a simple program. Students coded musical instruments to make different tunes. The code used become complex by adding in functions that included branching (multiple options) iteration (repeat functions) and user input (decisions made by the user).

New South Wales Science and Technology Syllabus

Assessment	
Syllabus Outcomes Stage 3	**Assessment Statement**
Defines problems, and designs, modifies and follows algorithms to develop solutions (ST3-3DP-T) Design, modify and follow simple algorithms. Extend sequences of steps to provide a series of possibilities through branching Develop solutions through trialling and refining using iterations (ACTDIP019)	Students designed and created an interactive band using the visual programming platform, Scratch. Students created a selection of algorithms (sequences of steps) to create an interactive band using Scratch. To increase the complexity of their algorithms, students included branching (multiple options) to their code. Students developed their digital solution (creating a digital band). To refine their code that was repeated, students used iterations (repeats).
Implement digital solutions as visual programs involving branching, iteration and user input (ACTDIP020)	Students used the visual programming platform Scratch to create a simple program. Students coded musical instruments to make different tunes.

Western Australian Digital Technologies Curriculum

Assessment			
Content Descriptions Level 5	**Assessment Statement**	**Content Descriptions Level 6**	**Assessment Statement**
Develop and communicate alternative solutions, and follow design ideas, using annotated diagrams, storyboards and appropriate technical terms (WATPPS29)	Students developed a storyboard of explicit instruction to demonstrate how their Scratch program would function.	Design, modify, follow and represent both diagrammatically, and in written text, alternative solutions using a range of techniques, appropriate technical terms and technology (WATPPS35)	Students modified a design in Scratch to code musical instruments to play notes and tunes. They created a flowchart that detailed their designed which included appropriate terms used for type of code.
Design, follow and represent diagrammatically, a simple sequence of steps (algorithm), involving branching (decisions) and iteration (repetition) (ACTDIP019)	They used appropriate terms to describe the functions in their code such as using branching and iteration to improve the complexity of their code.		
Implement and use simple programming environments that include branching (decisions) and iteration (repetition) (ACTDIP020)	Students used the coding platform Scratch to create an interactive band Their program demonstrated the use of branching and iteration with the code.	Implement and use simple visual programming environments that include branching (decisions), iteration (repetition) and user input (ACTDIP020)	Students used the visual programming platform Scratch to code musical instruments to make different tunes. The code used become complex by adding in functions that included branching (multiple options) iteration (repeats) and user input (decisions made by the user).

Victorian Digital Technologies Curriculum

Assessment	
Content Descriptions Levels 5-6	**Assessment Statement**
Design, modify and follow simple algorithms represented diagrammatically and in English, involving sequences of steps, branching, and iteration (VCDTCD032)	Students represented algorithms using a flowchart/written statements to show how their program in Scratch (programming musical instruments to play tunes) would operate. Students included the branching (multiple options), user input (user interacting with the program) and iteration (repeats) in the commands.
Develop digital solutions as simple visual programs (VCDTCD033)	Students used the visual programming platform Scratch to code musical instruments to make different tunes and play known tunes.