Programming with ScratchJr: Sounds

Aim:
To understand what algorithms are, how they are implemented as programs on digital devices and that programs execute by following precise and unambiguous instructions.

To create and debug simple programs.

Children record animal sounds and then create simple programs to play the recorded sound, when the animal is clicked.

I can create programs that play a recorded sound.

Success Criteria:
I can record my own sounds.

I can create instructions to play a recorded sound.

I can edit and use speech bubbles in my instructions.

I can create my own simple programs.

Key/New Words:
ScratchJr, tablet, blocks, programs, character, background, sequence, project, grow, shrink, sound, record.

Resources:
Lesson Pack

Tablets (Apple, Amazon or Android) with ScratchJr app installed.

Preparation:
Scratch Junior Blocks Sheet - as required (with blocks pre-cut if desired)

Differentiated **Animal Sounds Activity Sheet** - as required

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Prior Learning: Children will have begun to create simple programs using the ScratchJr app in Lessons 1-4.

Learning Sequence

Identifying Blocks: Begin by providing children with a range of images for ScratchJr blocks, using the **Scratch Junior Blocks Sheet** and allow them to identify together which blocks they recognise and can describe the effects for. Can children predict what any of the other blocks do?

Sounds and Speech: Use the **Lesson Presentation** to show the blocks for recording and playing sounds and for adding speech bubbles. Ask what children think they are for and then describe their purpose.

Animal Sounds: Using the **Lesson Presentation**, display some of the animal sprites available on ScratchJr, along with speech bubbles. Allow children to have fun demonstrating animal sounds, while clicking to display a text version of the sound inside the speech bubbles.

Code for Sounds: Show an example of a sequence of blocks, involving sound and speech bubbles. Children use the blocks from the **Scratch Junior Blocks Sheet** (either by cutting out or using pre-cut version), like jigsaw pieces to make a sequence similar to the example on the board.

Record Your Sounds: Children use the differentiated Animal Sounds Activity Sheets to create code to use sounds. Can children create code to play recorded sounds?

★ Children copy code for 3 animals.

★★ Children copy code for animals, and then create their own code for 2 more.

★★★ Children copy code for 1 animal and then create their own code for at least 3 more.

Describe a Sequence: Show the image of four animals on a River background. Ask children to describe, draw or make a sequence of blocks (could include a sound, speech bubble or movement) and say what it would program the animal to do.

Taskit
Modelit: Children use building bricks, toys or pictures of animals/other characters. They act out how they would move, if programmed by a sequence of ScratchJr instructions.

Paintit Using square templates, children paint a picture of one of the ScratchJr blocks, using the correct symbols and colours. It could make a great display or piece of art with lots of them combined!

Programming with ScratchJr | Sounds

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Animal Sounds

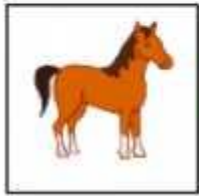I can create programs that play a recorded sound.

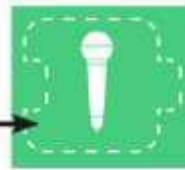Open the ScratchJr app and start a new project in the My Projects screen.

Choose an outdoor background such as the **River**.

In this project, you are going to add some animals and program them with suitable sounds.

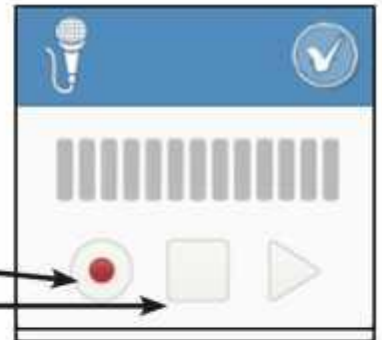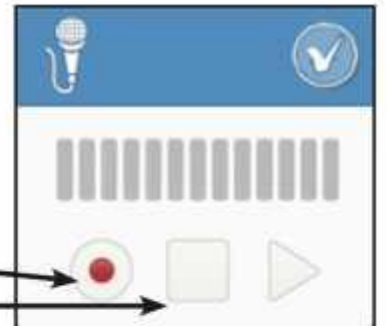First, add the horse and position on the background. This is the code to create for the horse:

To use this block for PLAY RECORDED SOUND, you must first click on the microphone image to record your sound.

To start recording, press the record button and when finished, press the stop button.

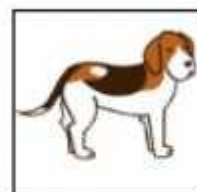If you are happy with your horse sound, click the tick icon.

Now you can select the block to PLAY RECORDED SOUND.

Do the same for the cat and the dog. Try this code. Can you predict what the cat will do?

Animal Sounds

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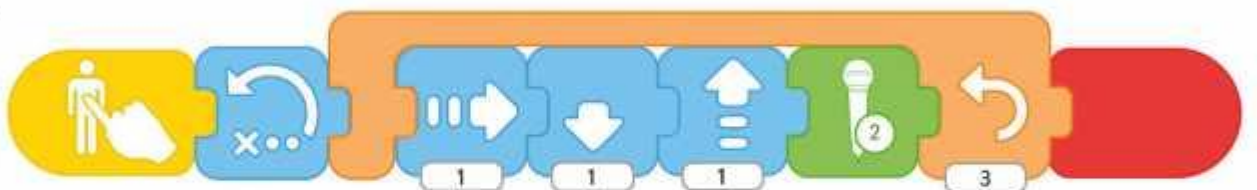To start recording, press the record button and when finished, press the stop button.

If you are happy with your horse sound, click the tick icon.

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Do the same for the cat and add a speech bubble too. Try this code. Can you predict what the cat will do?

Meow

Try adding at least two more animals of your own. Record a sound for each animal and add movement and speech bubbles to the sequence of code.

Animal Sounds

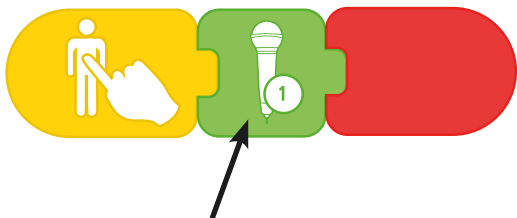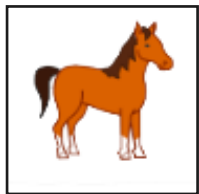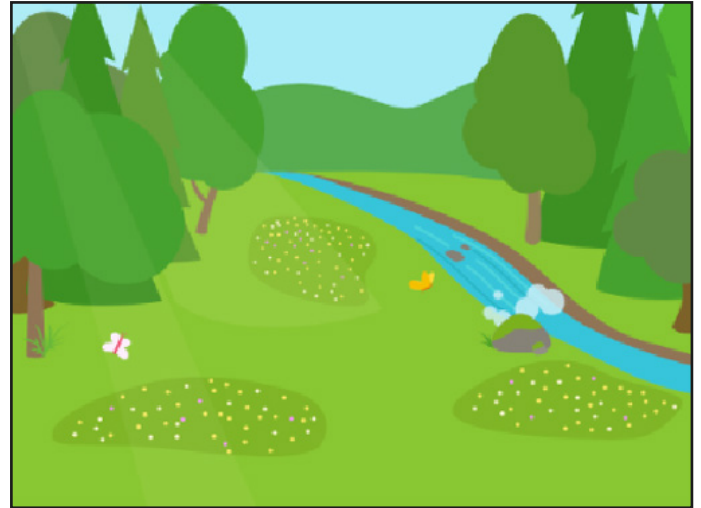I can create programs that play a recorded sound.

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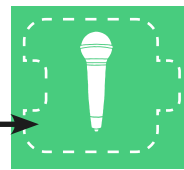
Choose an outdoor background such as the **River**.

In this project, you are going to add some animals and program them with suitable sounds.

First, add the walking cat and position on the background. This is the code to create for the cat:

To use this block for PLAY RECORDED SOUND, you must first click on the microphone image to record your sound.

To start recording, press the record button and when finished, press the stop button.

If you are happy with your horse sound, click the tick icon.

Now you can select the block to PLAY RECORDED SOUND.

Do the same for the fly and at least three more animals of your own, recording a sound as well as movement and speech bubbles. Try this code. Can you predict what the fly will do?

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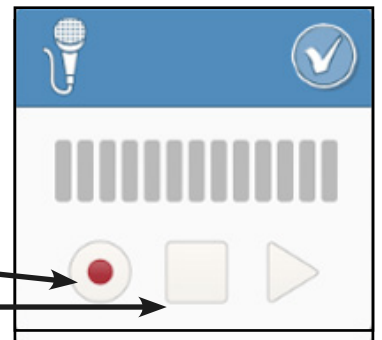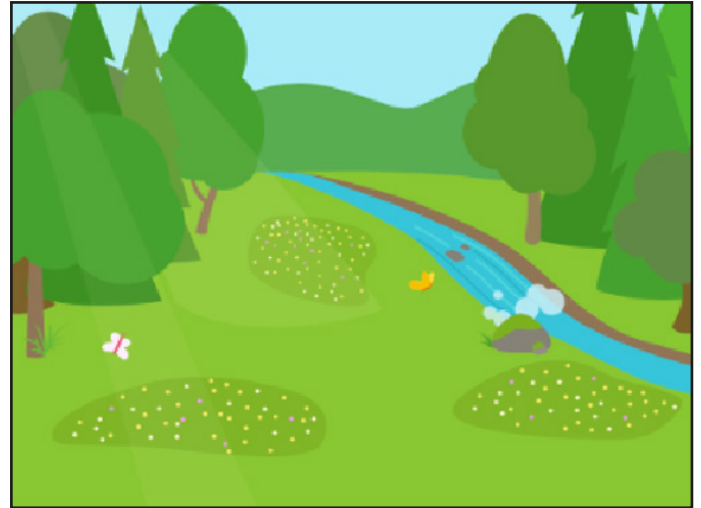
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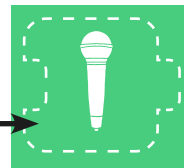Open the ScratchJr app and start a new project in the My Projects screen.

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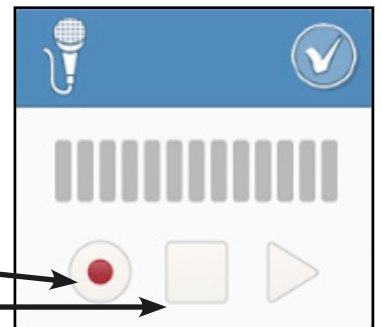In this project, you are going to add some animals and program them with suitable sounds.

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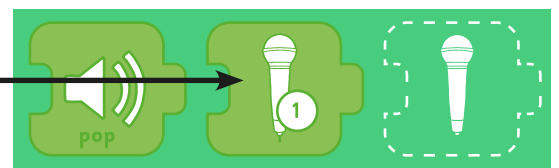
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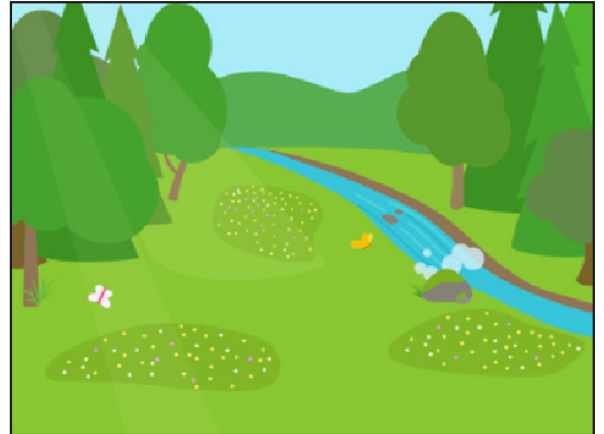I can create programs that play a recorded sound.

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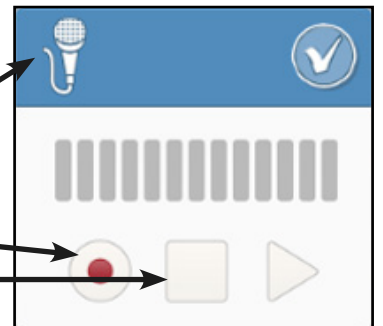In this project, you are going to add some animals and program them with suitable sounds.

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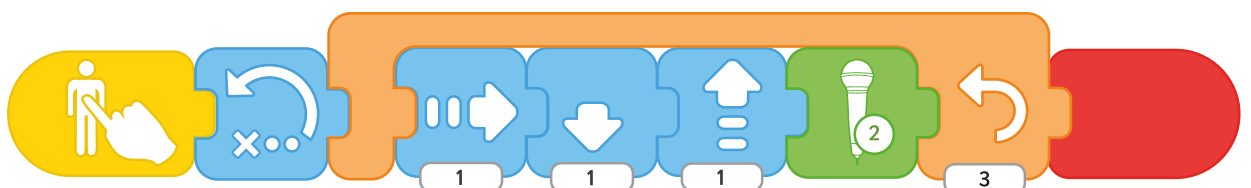To start recording, press the record button and when finished, press the stop button.

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Lesson 5: Sounds

Activity Sheets

In this lesson, the three Activity Sheets are differentiated in design so that children of higher, middle or lower ability can be given one activity each.

The LA activity provides example code for three animals, which the children can copy and recreate.

The MA activity provides example code for two animals and the opportunity for children to create two more of their own.

The HA activity is open-ended for children to create their own code using recorded sounds.

Working with Groups

It is recommended that an adult works with a small group of children at a time to deliver the main activity of the lesson, with children using their own tablet.
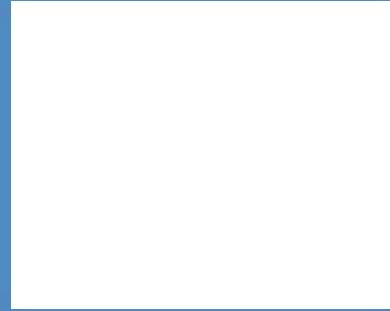
Computing

Programming with ScratchJr

Sounds

Aim

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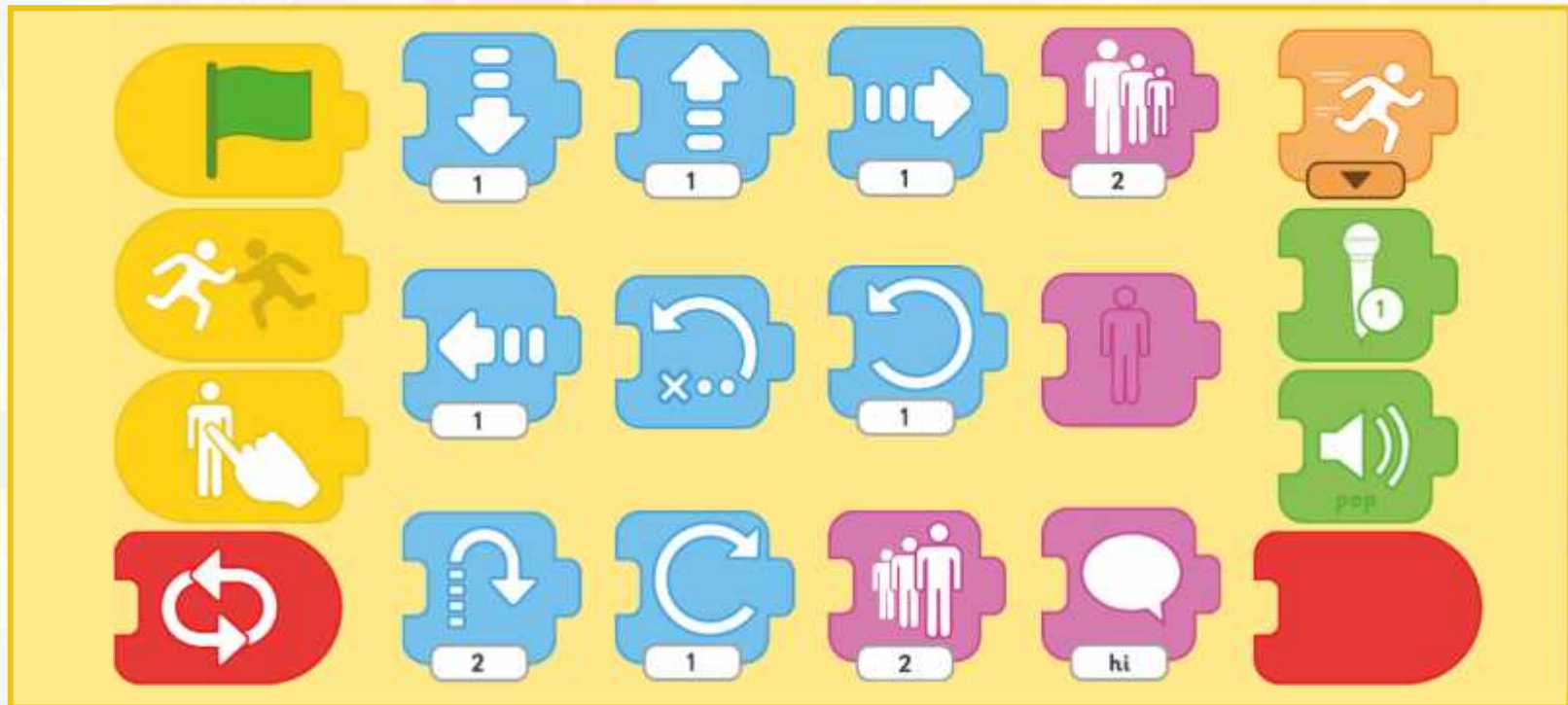
Identifying Blocks

Use the ScratchJr blocks.

Can you describe what they do?

Which ones can you identify?

Can you guess what any of the other blocks do?

Sounds and Speech
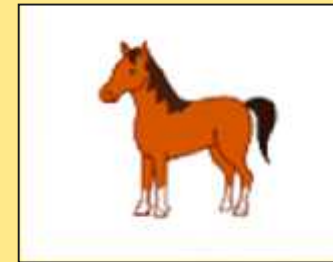
What are these blocks for?

Display Speech Bubble

Play Recorded Sound

Animal Sounds

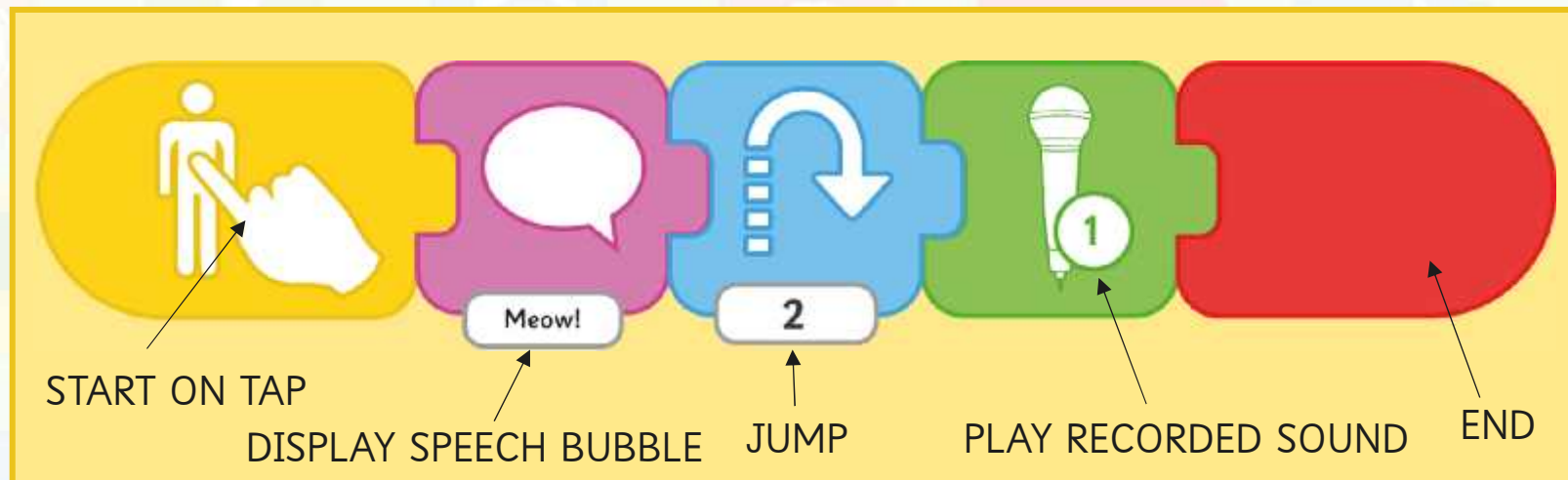What sounds or speech would you add for these animals?

Code for Sounds

This code uses sound and speech bubbles.

Can you use the blocks on paper to make a sequence like this?

What does each instruction in the program do?

START ON TAP

DISPLAY SPEECH BUBBLE

Meow!

JUMP

2

PLAY RECORDED SOUND

1

END

Record Your Sounds

Can you create the code to play your own recorded sounds in ScratchJr?

Use the Animal Sounds Activity Sheets to program these animals!

Describe a Sequence

Choose one of the animals in the picture.

Describe, draw or make a sequence of blocks (it could include a sound, speech bubble or movement).

Can you say what the sequence would program the animal to do?

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2

10

pop

1

4