# Coding with Scratch Junior

## Description:

Students create a simple touch game using Scratch Junior about animals that live on a farm.

| 1 – 2 HOURS | MEDIUM | AGES 5 - 8 |
| --- | --- | --- |

**ACTIVITY TYPE: CODED GAME**



Image source: https://www.scratchjr.org/

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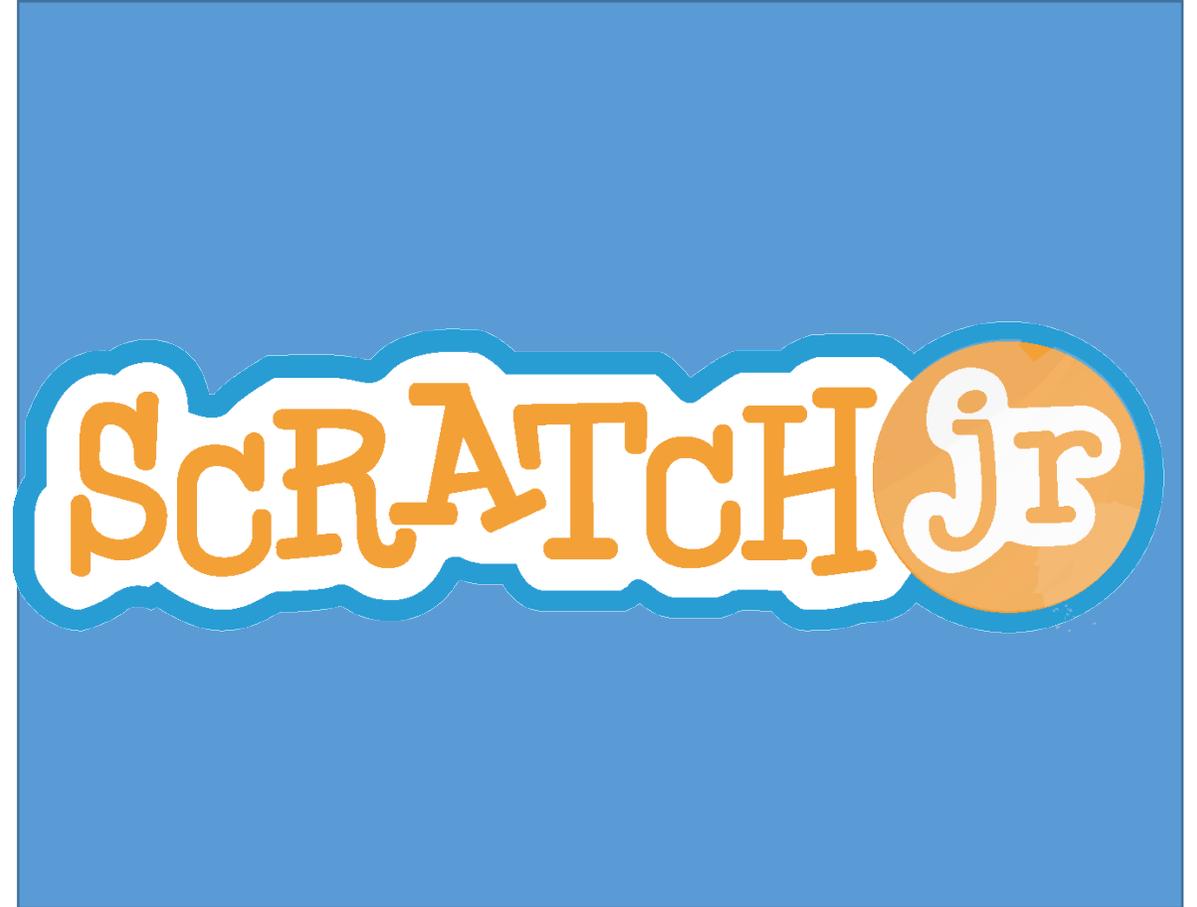
# You will need:

- iPad or Android tablet

- Scratch Junior Application (free) – iPad version
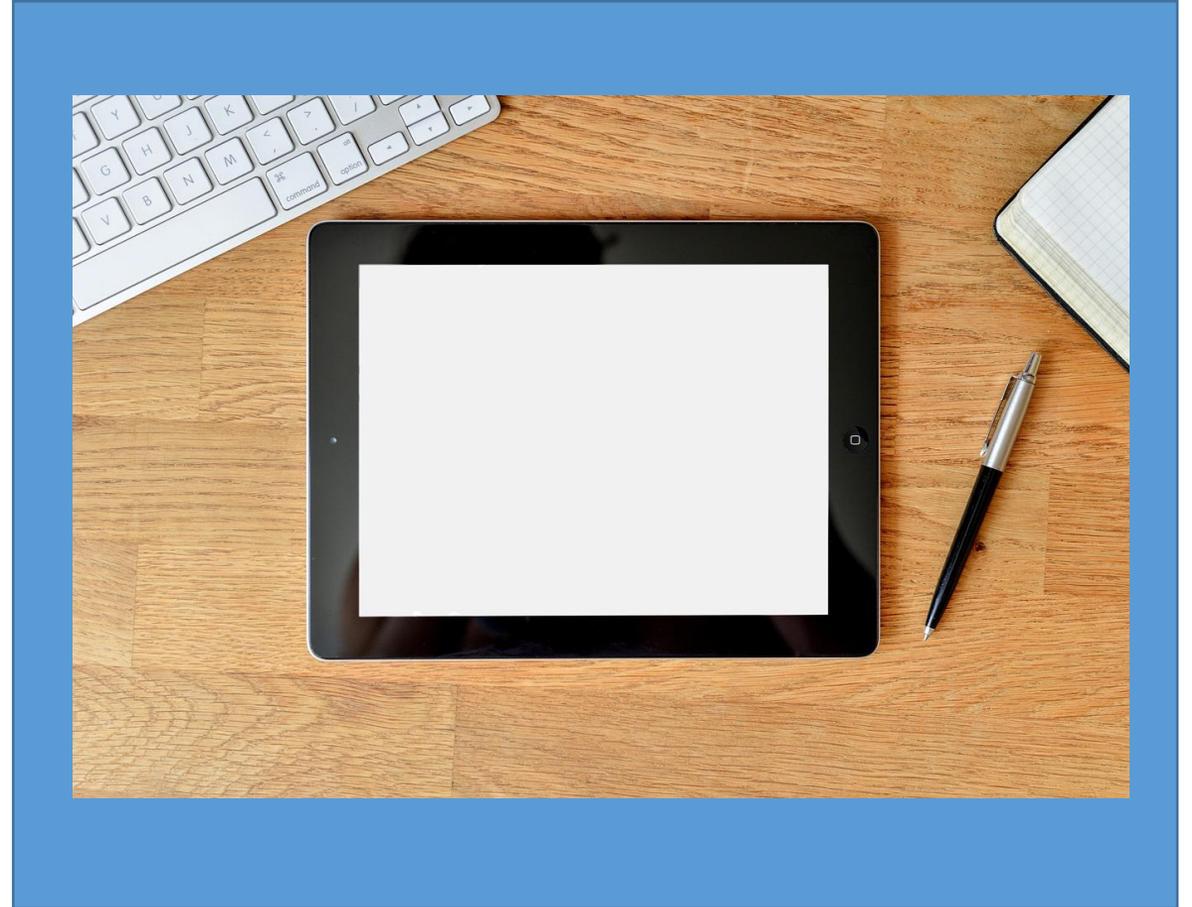
- Scratch Junior Application (free) – Android version



Image source: stokpic/ Pixabay

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# About the activity:

This activity will teach students about some of the basics of Scratch Junior. They will create a game about animals that live on a farm. If the user touches an animal that lives on a farm, a 'well done' message will appear and the character will become animated.

**Please note:** Although this example is about animals on a farm, there is no reason why students cannot choose their own topic, for example; transport, marine life, household items etc.



Image source: tmcsparron/ Pixabay

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# Scratch Junior, what's that?

- Scratch Junior is an iPad/Android application that introduces young children to coding. Using snap and lock blocks, children can code their own interactive stories and games. The drag and drop interface of this program makes it extremely user friendly for children of this age.

- For more information, visit the Scratch Junior Website



Image source: https://www.scratchjr.org/

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# Let's get started…

**1**

- Start by becoming familiar with the Scratch Junior program using the Interface Guide.

- Watch the Scratch Junior Activities Guide video.

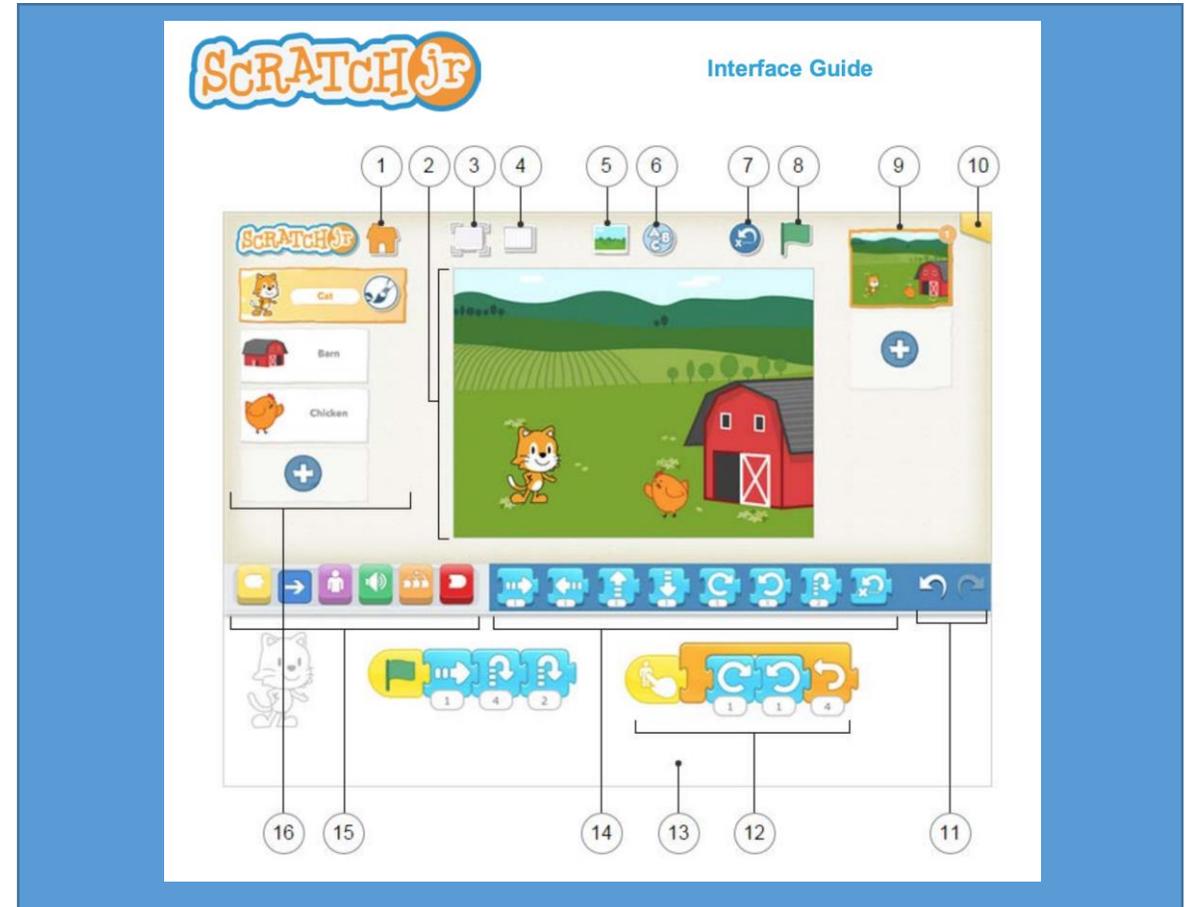**Good tip:** Taking a look at the paint editor guide is a good idea before starting to code.



Image source: https://www.scratchjr.org/pdfs/scratchjr-interface-guide.pdf

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# What's next…

**2**

- Choose a background for your game by clicking on the change background button.

- For this example, a farm background has been chosen.

**Good tip:** You can design your own background, however, its best to use a template if this is your first time using the program.
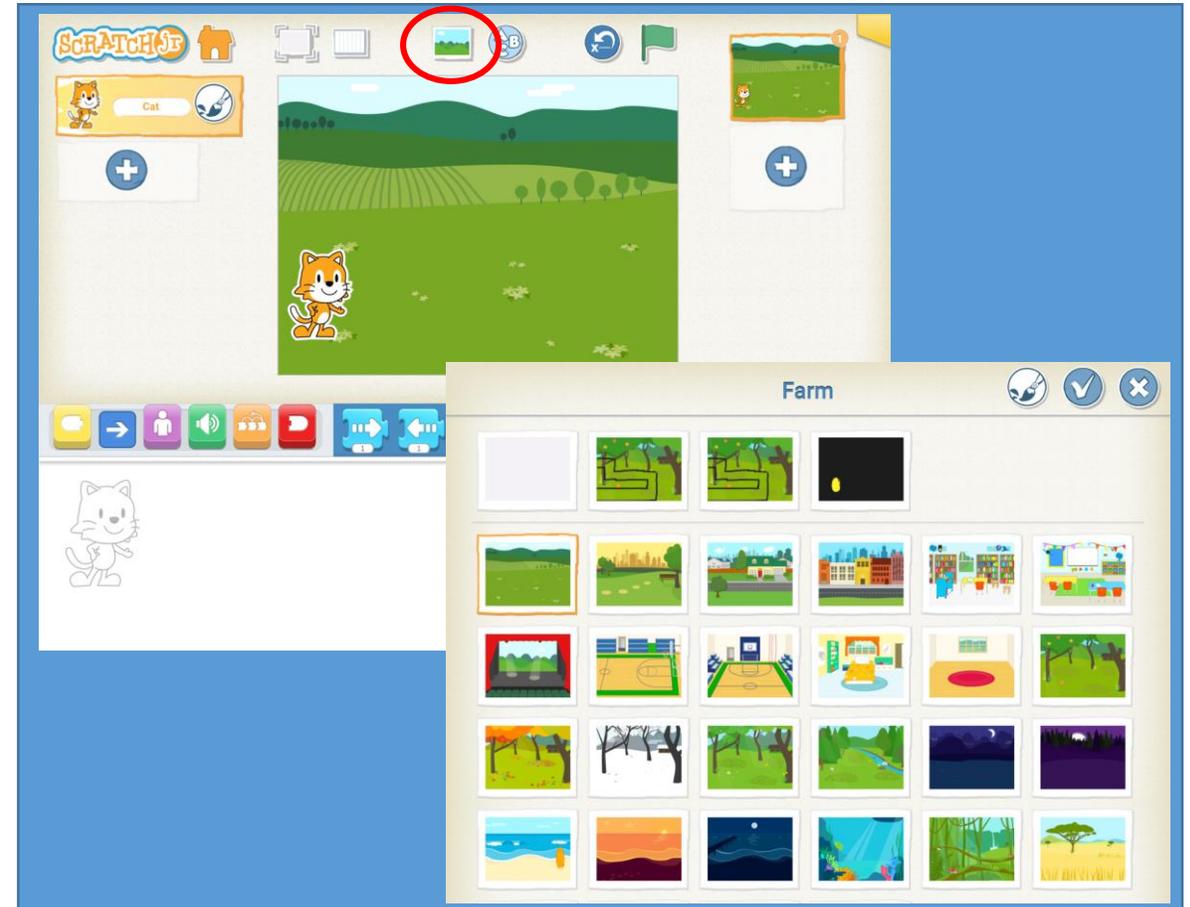


Image source: Created by L Barker using Scratch Junior Application

# What's next...

**3**

- Add some characters (3-4) to your game by choosing the + button on the left hand side.

- For this example, a horse, elephant, crab and pig have been added.



Image source: Created by L Barker using Scratch Junior Application

# What's next…

**4**

- Change the size of each of your characters by using a green flag button found in the yellow menu and a shrink button found in the magenta menu.

- For information about the blocks, look at the Block Description Guide.

**Good tip:** You can copy this code across to each of the characters by dragging and dropping.



Image source: Created by L Barker using Scratch Junior Application

# What's next…

**5**

- Add a message for each of your characters when they are touched using the yellow 'when touched' button and the magenta speech bubbles.

- In this example, when the horse is clicked a message of 'well done', 'I am a horse', and 'I live on a farm' comes up.

**Good tip:** Include some animals that do not live on a farm so you can use a 'better luck next time' message.

Image source: Created by L Barker using Scratch Junior Application

# What's next…

**6**

- Add some animation to the characters after they have finished talking, for example, jump up and down, disappear, spin etc.

**Good tip:** You can find different actions in either the magenta or blue menus.



Image source: Created by L Barker using Scratch Junior Application

# What's next...

**7**

- Program your cat to introduce the game and to provide instructions about what to do.

- Use the yellow 'when flag clicked' button and some magenta speech buttons.



Image source: Created by L Barker using Scratch Junior Application

# Congratulations...

- Now you can go into full screen mode and test out how the game works.

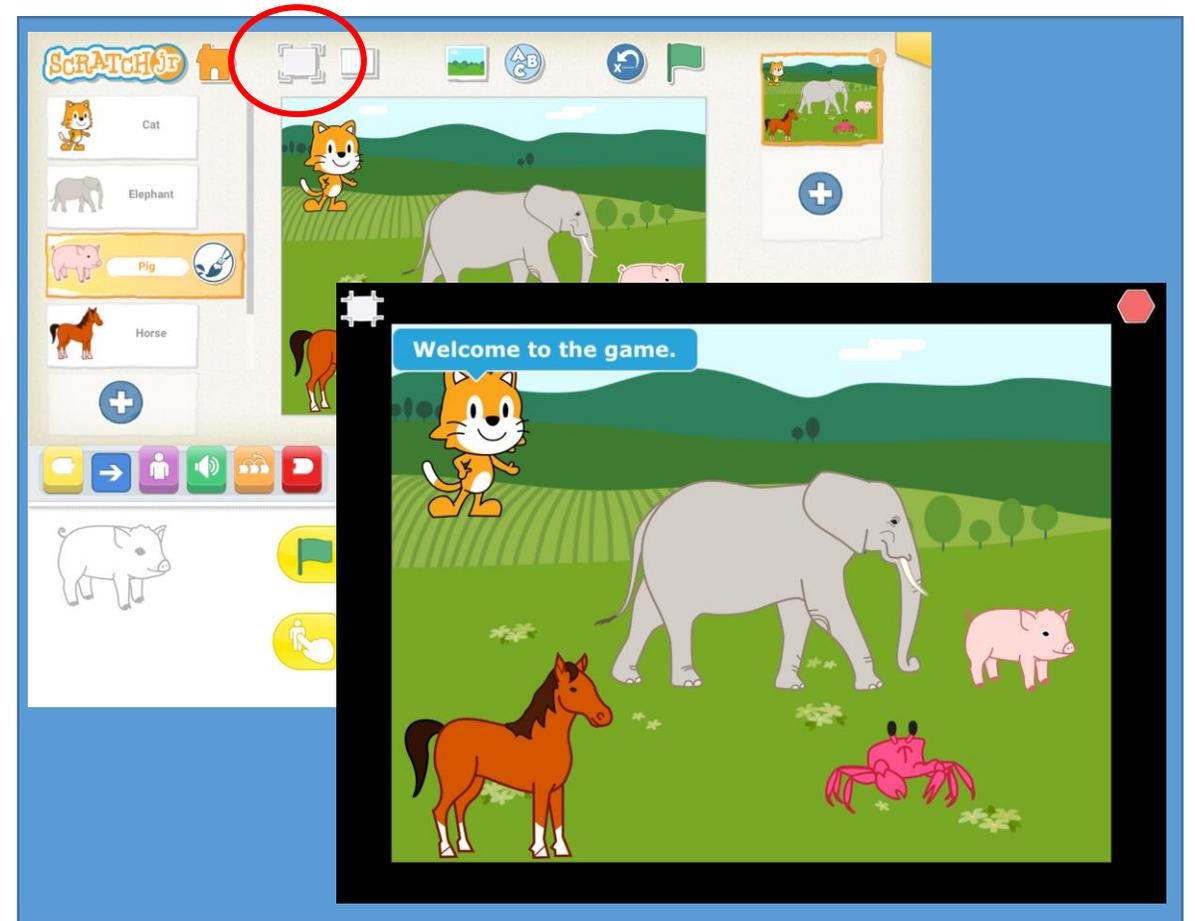- Fix any problems you find before you ask a family member to try your game.



Image source: Created by L Barker using Scratch Junior Application

# Resources

- Scratch Junior Interface Guide

- Scratch Junior  Paint Editor Guide

- Scratch Junior Block Descriptions

- Scratch Junior Activities Guide video



Image source: https://www.scratchjr.org/pdfs/scratchjr-interface-guide.pdf

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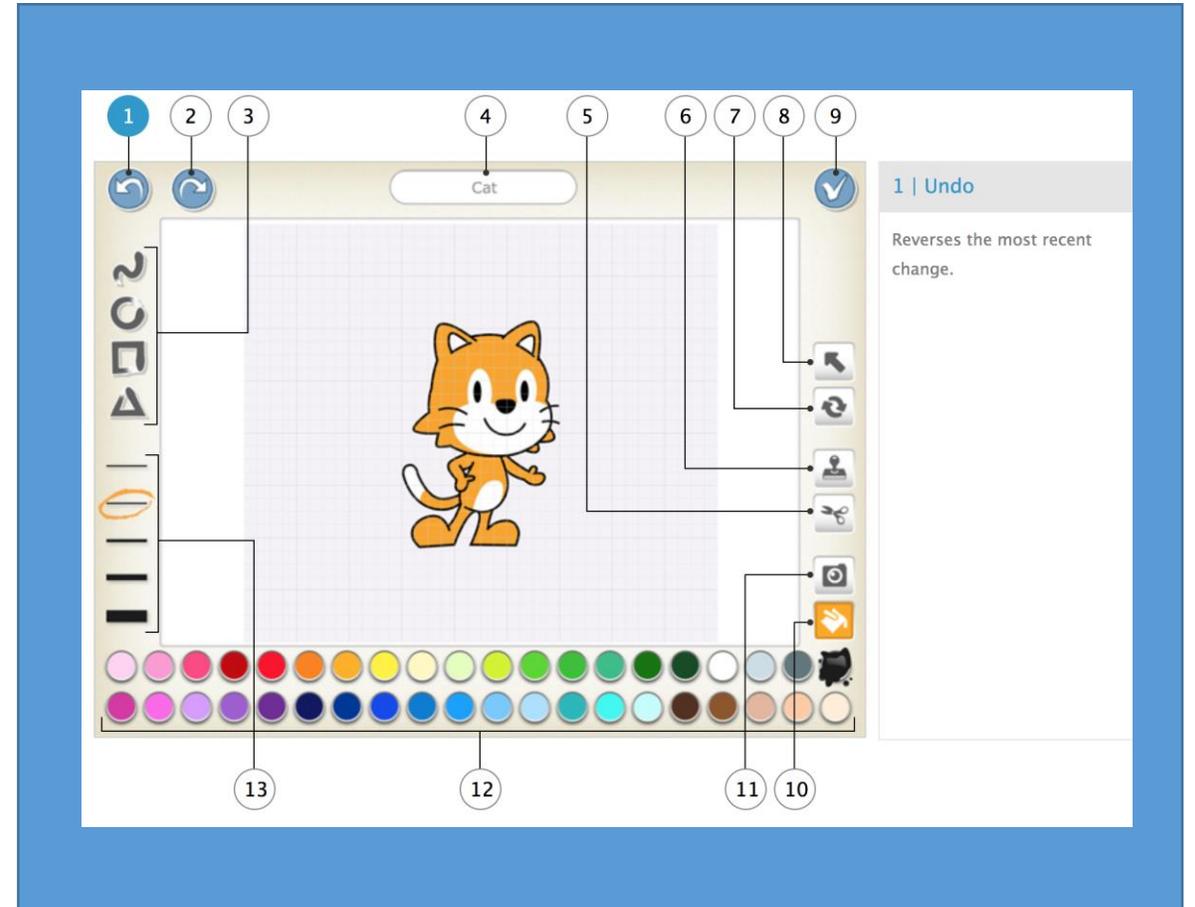HUB

# Why we are learning about this …

- Programming is the process that makes it possible to create computer software, applications and websites. Currently, computers are unable to think for themselves; they require users to give them sets of ordered instructions to know what to do. This is referred to as 'code'. Most of the resources you use on the computer and internet are made with code. Programming is a core element of the Digital Technologies curriculum because it helps students develop essential skills such as problem-solving, logic and critical thinking.

- Visual programming, also known as block-based programming, is the coding language prescribed in the Australian Curriculum: Digital Technologies for primary schools. This type of language allows users to create programs by manipulating elements graphically rather than writing them in text format.

To find out more …
https://www.digitaltechnologieshub.edu.au/teachers/topics/visual-programming