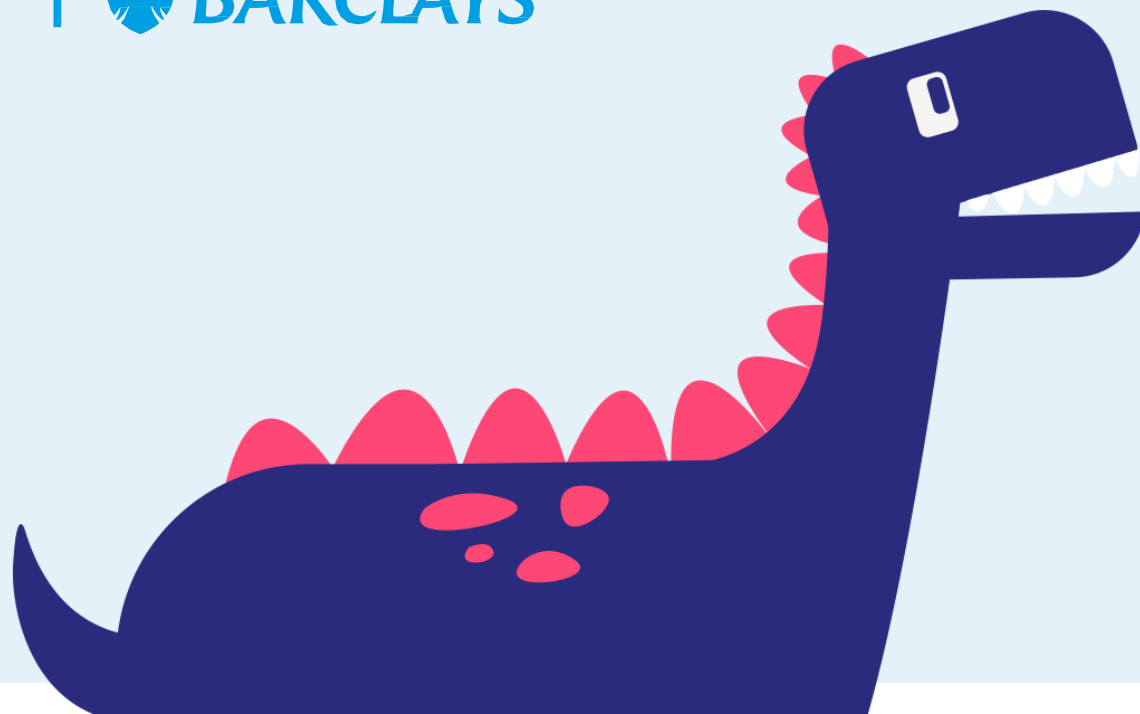


Student workbook

Building future skills

Code Playground



Next page ►

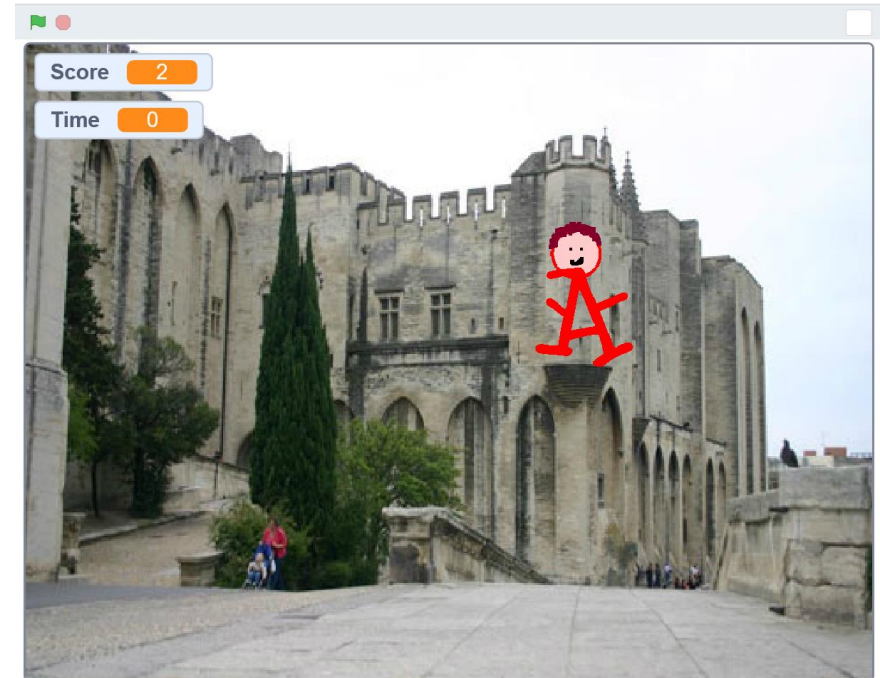
Building future skills

Code Playground Live

Our 'Api Chappy' needs to access the server by finding the API keys, can you help?

This project will take you through an introduction to coding and is designed for Scratch 3.0.

Hope you enjoy the game!

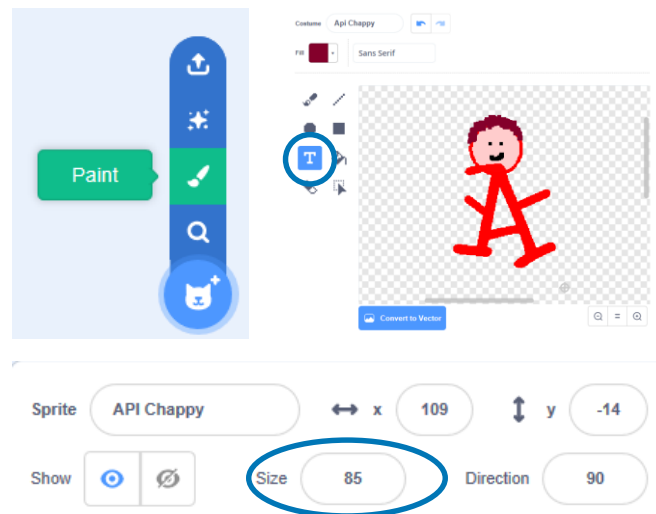
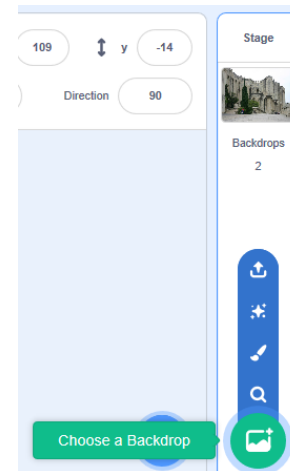


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Code Playground Live

Step 1

Choose a backdrop from the scratch library as your stage. Here we've used a castle backdrop. Click 'Choose a backdrop', 'outdoors', then 'castle4'



Step 2

Let's create your character, first click 'Paint' and use the paint editor to create a hero for your game, we've used the text editor to create our 'Api Chappy'

**Top tip: use the 'size' sprite tool to help make your sprites fit on the screen

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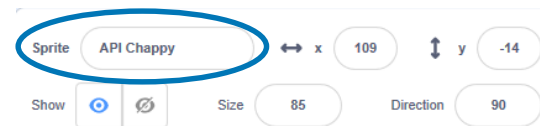
Code Playground Live

Step 3

Next click 'Choose a sprite' and select the 'key' sprite.

Now you're ready to start coding!

**Top tip: rename your sprites as you create / import them to keep track of your coding



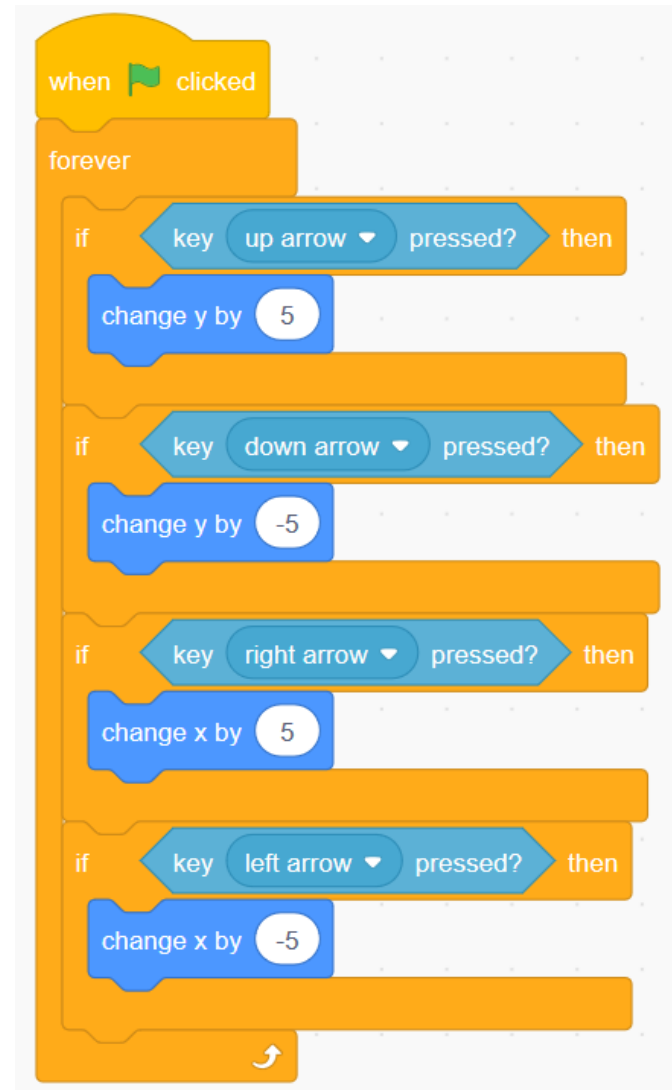
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Step 4

First we will make our new friend move using this code...

When you've added this code to Api Chappy, have a go at making your sprite move around the screen.

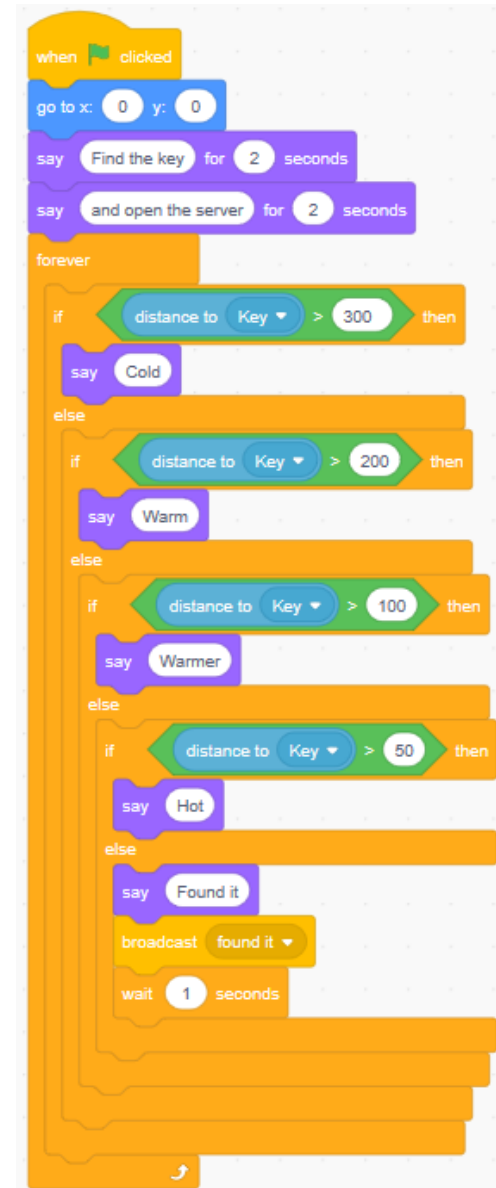


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Step 5

Add this code to Api Chappy to give clues about where the next API key is hidden.



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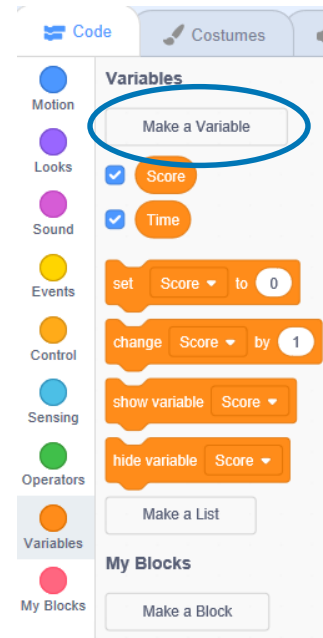
Code Playground Live

Step 6

Now we need to set up our timer and scoring system.

Variables: In coding a variable is a bit like memory for your project. It can remember information that can change throughout the program or game. Things like score and time are variables.

We need to make two variables for our game. Use the orange Variables tab and select 'Make a Variable'. Create one called 'Score' and another one called 'Time'



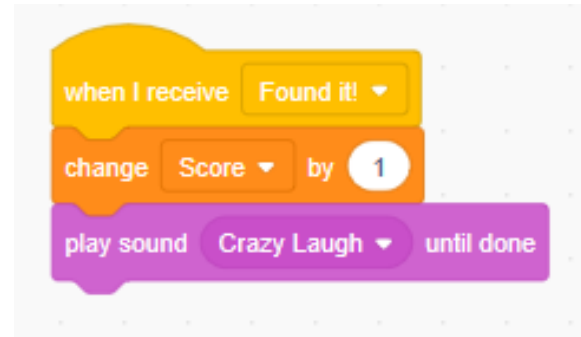
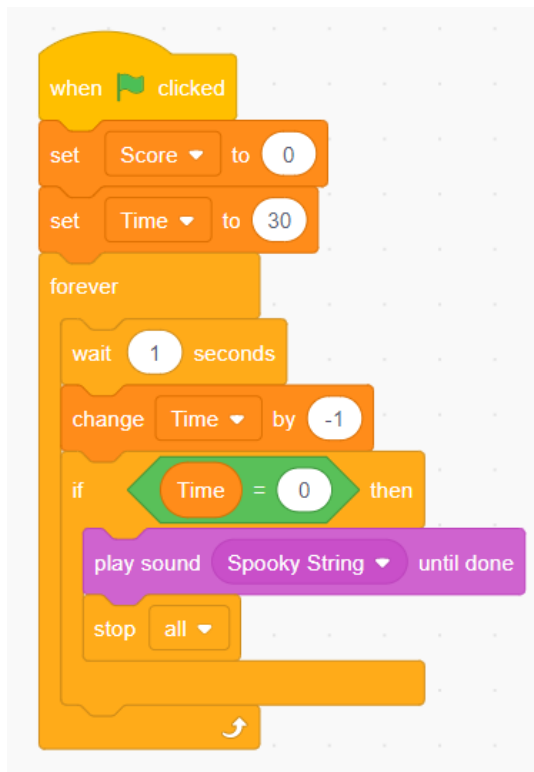
**Top Tip - Not sure where to find the coding blocks you need? Use the colour code on the tabs as a handy hint!

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Step 7

Next, add these scripts to the stage



The script to the left controls the timer by setting a countdown from 30 seconds. The 'stop all' tells the game to end when the timer reaches 0. The script above keeps track of how many times you find the key in 30 seconds.

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Step 7

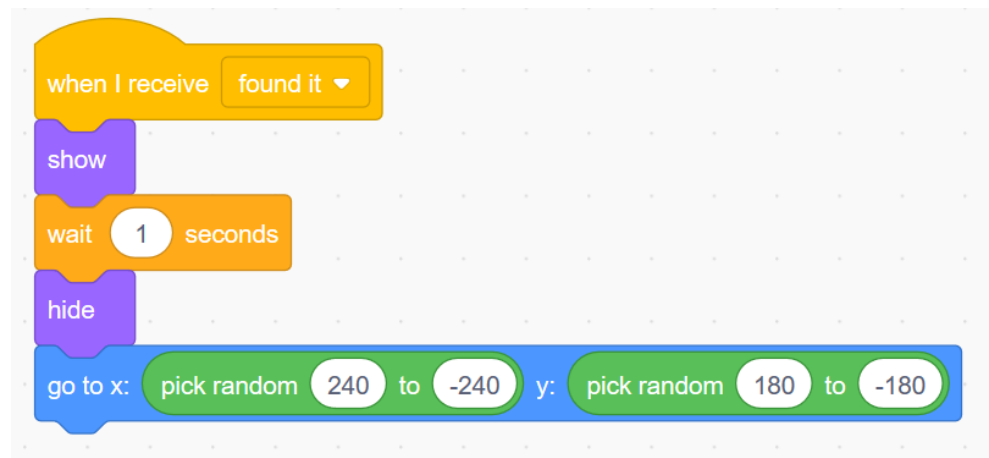
Now we need to hide the API keys for Api Chappy to find! Add these scripts to your key sprite.

When you have added these scripts, your game is ready to play. Click the green flag to see how many keys you can find!



```
when green flag clicked
hide
go to x: pick random 240 to -240 y: pick random 180 to -180
```

The image shows a Scratch script for a key sprite. It starts with a yellow 'when green flag clicked' block, followed by a purple 'hide' block, and a blue 'go to x: pick random 240 to -240 y: pick random 180 to -180' block.



```
when I receive found it
show
wait 1 seconds
hide
go to x: pick random 240 to -240 y: pick random 180 to -180
```

The image shows a Scratch script for a key sprite. It starts with a yellow 'when I receive found it' block, followed by a purple 'show' block, an orange 'wait 1 seconds' block, a purple 'hide' block, and a blue 'go to x: pick random 240 to -240 y: pick random 180 to -180' block.

Building future skills

Code Playground Live

Level up!

- Can you make the score change by 10 every time Api Chappy finds a key?
- Can you make the timer start after the instructions?
- Can you make the game play a drum beat if you reach 5 points?
- Can you make the code used for this project more efficient?
- Can you add in a second level?

Notes

Code Playground