Ghost Catcher

In this spooky game players score points by trying to click on ghosts as they appear and disappear around the grounds of the old castle.

Key coding points to look out for are

- random numbers
- using variables to keep the score
- adding sounds

Information!

If you haven't used Scratch before we suggest you first take a look at our introductory project Coding with Scratch – First Steps. You can go directly to the project by clicking the link below.

Coding with Scratch – First Steps

Lets start coding

- Start a new project.
- Delete the cat sprite

- Add the ghost sprite

- Add the Castle 2 backdrop

Castle 2

Animate the ghost

This code makes the ghost appear and disappear every second.

```
when [flag] clicked
repeat 10
    hide
    wait 1 seconds
    go to [random position ▼]
    show
    wait 1 seconds
```

and it does this 10 times

Each time it disappears it moves to a random place on the stage before it reappears

Test your code

Click the green flag to test your code. The ghost should disappear and then reappear in a different place. It repeats this 10 times.

Catching the ghosts

Add this code to let the player try and catch the ghosts when they appear.
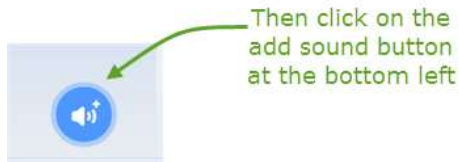
```
when this sprite clicked
hide
```

Test your code

Run the code. Can you catch the ghosts by clicking on them with your mouse before they disappear?
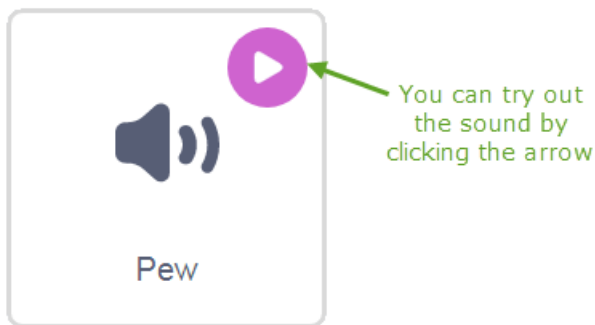
Add some sound effects
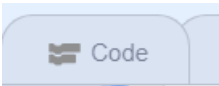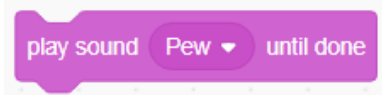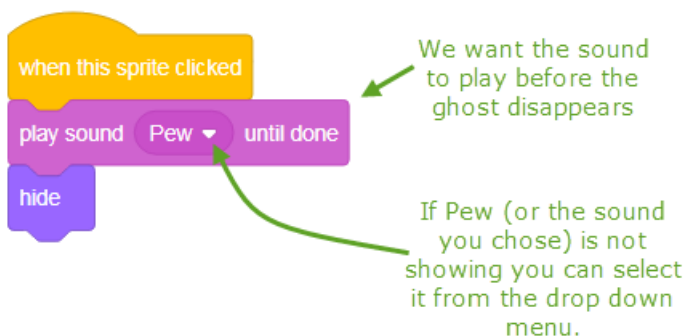
Let's add a sound every time a ghost is caught.

Click on the Sounds tab

Then click on the
add sound button
at the bottom left

You can choose any sound you like, I choose Pew because it sounds like the kind of noise a ghost would make when it was caught!

You can try out
the sound by
clicking the arrow

Pew

Go back to the code tab   **Code**   and drag out a
block from the Sounds blocks and add it to the code like this:

play sound   Pew ▾   until done

when this sprite clicked

play sound   Pew ▾   until done

hide

We want the sound
to play before the
ghost disappears

If Pew (or the sound
you chose) is not
showing you can select
it from the drop down
menu.

Check your code runs okay. Don't forget to make sure you speakers or headphones are turned on.

Change the size of the ghost

The ghost stays the same size all the time. We can make things more interesting by setting the size to change every time the ghost appears.

To do this add a set size block `set size to 100 %` from the Looks blocks

and drag a `pick random 1 to 10` from the green Operators blocks and drop it into the white oval in the set size block.

Change the numbers in the block to 25 and 75 which means the size of the ghost will keep changing between 25% and 75% of normal size.

Add the new blocks to your code so that it looks like this:
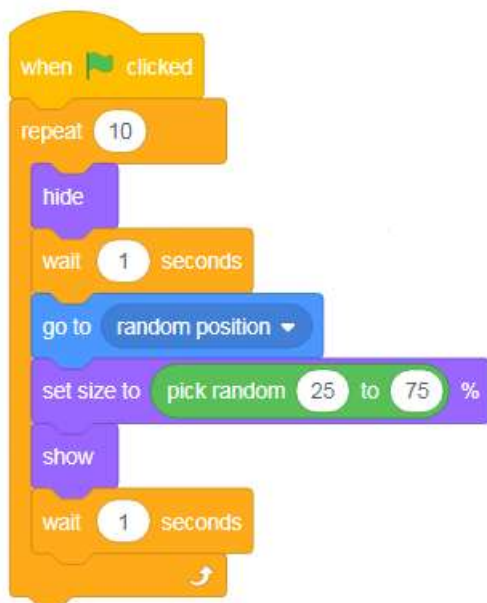
Add a score

To keep score of the number of times the player catches the ghost we need to create a variable.

Variables are used in Scratch to store information that we want to use later in our code. You can have lots of variables in a project and they can store numbers or words.

To create a variable go to the Variables blocks and click on Make a Variable

In our game the ghost appears 10 times (The loop in the code repeats 10 times) which means the player has 10 chances to catch a ghost. So we want to know what the score is out of 10.

You can use any name for your variable but we are going to call it **score out of 10** so that we know what it means. Click OK.

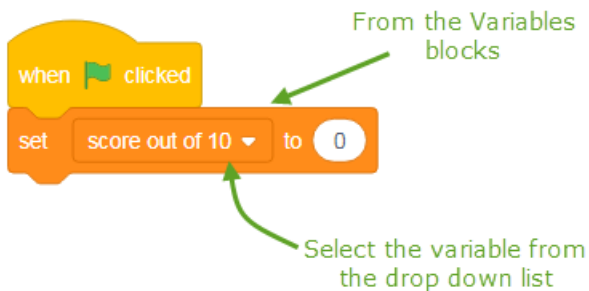You should now see the score appear on the stage.

If you don't see the score on the stage click on the check box next to the variable

in the Variables blocks.

Every time a new game starts we need to set the score to 0. So add this code to the game.

From the Variables blocks

Select the variable from the drop down list

And we need to increase the score by 1 every time the player catches a ghost so add this block to the code.

From the Variables blocks
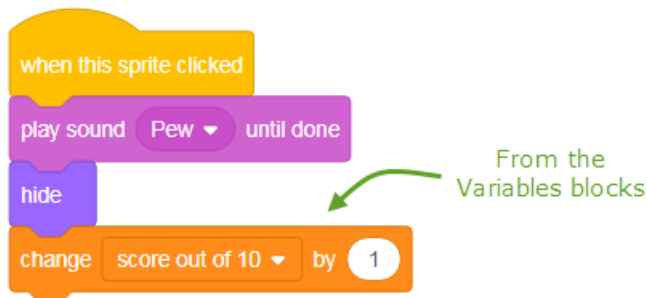
Test your code

Click the green flag and try to catch the ghosts. Your score should change every time to click on a ghost.
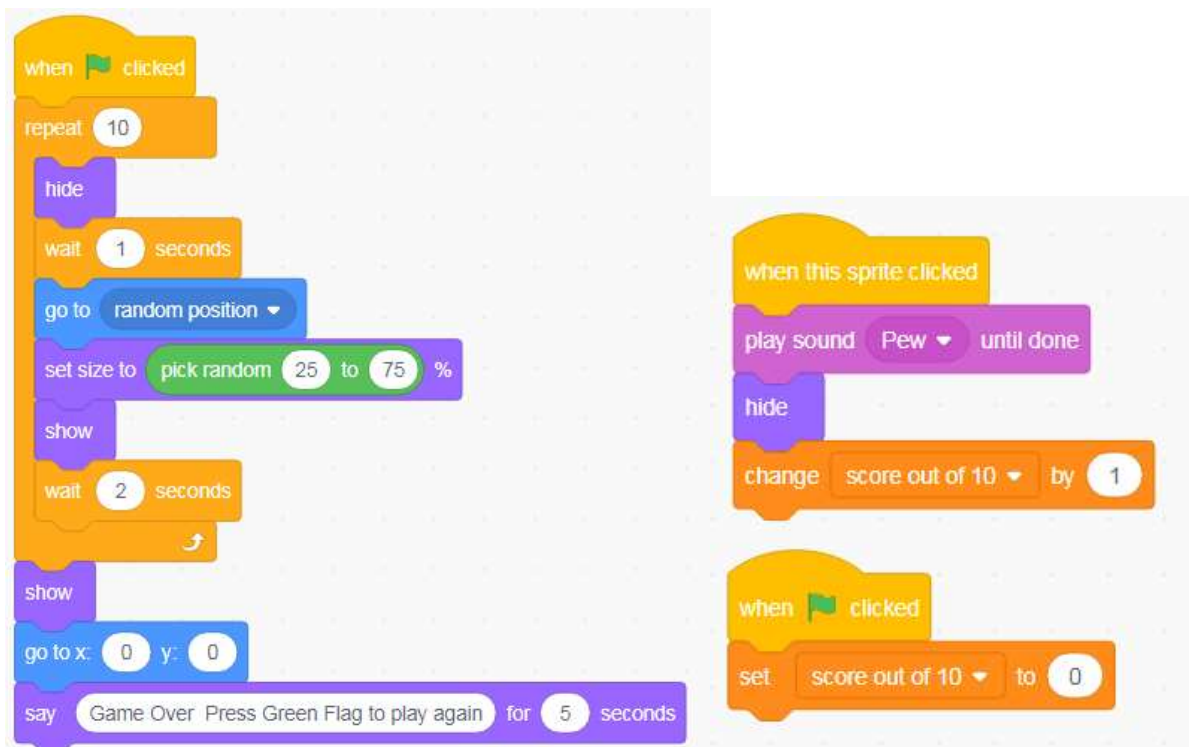
Game over!

We need to tell the player when they have used up all their 10 chances of catching the ghosts and that the game is over. One simple way to do this is to use a speech bubble.

Add these 3 new blocks to the bottom of the main code.
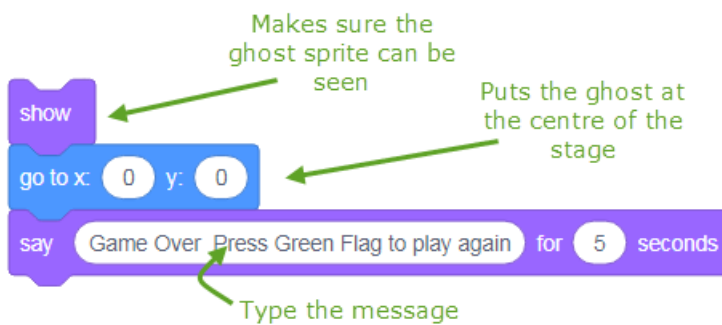
Final code

Your final code should look like this

Play the game

Click the green flag and play the game! Hopefully everything will be okay but if you have a problem think about what is not working and have another look at your code to see if you can find any 'bugs'

Challenge!

How could you change the time the player has to catch the ghost?

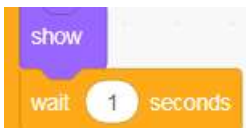How could you make the ghost bigger or smaller?

If you need help check out some suggestions on the next page

Answer to Challenge

You can change the time the player has to catch the ghost by changing the time in the second wait block, the one after the show block.

If you increase the time the game becomes easier, if you reduce it the game becomes harder.

You can change the sizes of the ghost by changing the numbers in this block.

Make the numbers bigger to increase the size and smaller to decrease the size. Try different numbers and see what you think is best.