Happy Easter!

Mr Easter Bunny has to go grab his eggs to give them out to his favourite kids! Can you help him to seek and collect his eggs? How many types of beautiful designs do his eggs have?

You can create simple games easily using Scratch. This project will guide you through one such example.

Try the project out at https://scratch.mit.edu/projects/356938246/

What Is Scratch?

Scratch is an interactive programming language designed to introduce children to computational thinking. It helps children to learn and think creatively, reason systematically, and work collaboratively — essential skills for life in the 21st century.

What Can We Do With Scratch?

You can program your own interactive stories, games, and animations — and share your creations with others in a vibrant online community.

Check out some of the community projects here! https://scratch.mit.edu/explore/projects/all
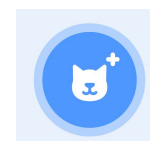
Step by Step Guide

1) Set your stage

The stage sets a backdrop for your program. Click on this icon to choose your backdrop for today's project!
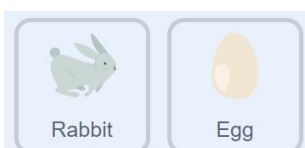

2) Find your Sprites

Sprites are characters or objects that can be programmed to move or interact with the user. Click on this icon and look for Mr Rabbit and his Egg!
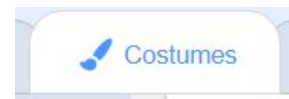

Together with your parents, find and select the following sprites for today's project!

3) Paint your own Sprite

You can also paint your own sprites! Click on the egg sprite, and then "Costumes" to paint some easter eggs. Personalise your own project!

For this project, delete all existing costumes for the egg sprites except "egg-a", using right click. Then duplicate **2** additional copies of "egg-a" using right-click. Feel free to use the paint tool to create your own designs!
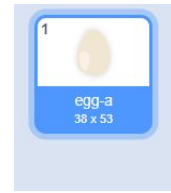
Checkpoint: Coding with blocks

Parents: It may be a little challenging to find the right blocks and put them at the right places. Do feel free to guide your child along to find the blocks together!

We are done with the basic design and look of our game. Before we get to programming the actual game, let's try out how block programming in Scratch works. Click on the rabbit sprite and drag out the following code blocks. They click like puzzle pieces!
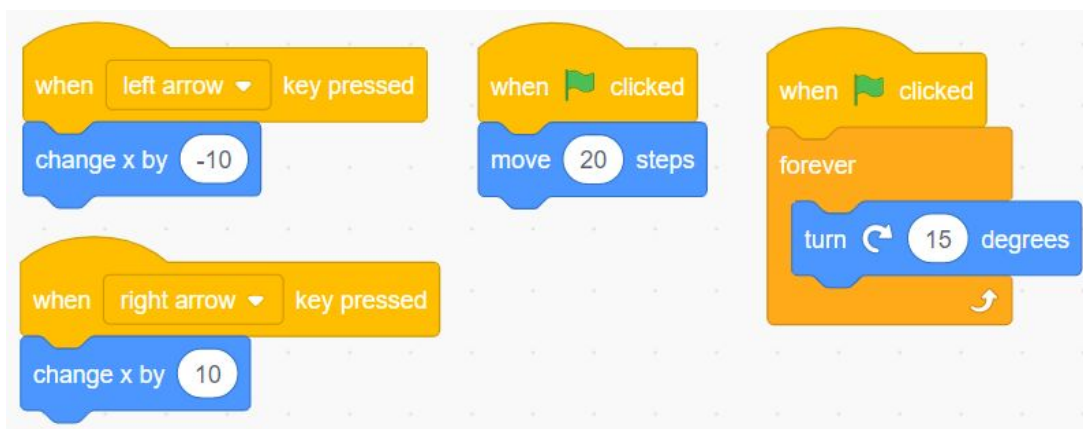
Now, let's check out what happens when you click on the green flag. Try the left and right key buttons too!

Experiment with other blocks in Motions, Looks and Sounds! Plug in different blocks of code under the event block "When Green Flag clicked". Together with your parents, try to create some interesting functions of your own! Here are some examples to get you started.
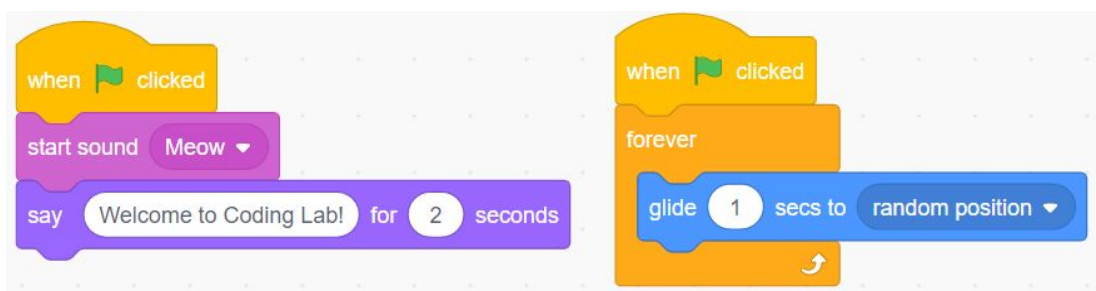
Note: You can delete blocks by dragging them to the left side of the blocks interface.
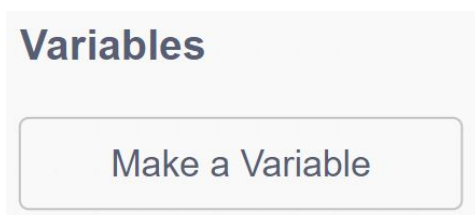
4) Programming the rabbit

We will program the rabbit to move left, right, up and down using the keyboard. We also want the rabbit to face the correct direction when it turns left and right!
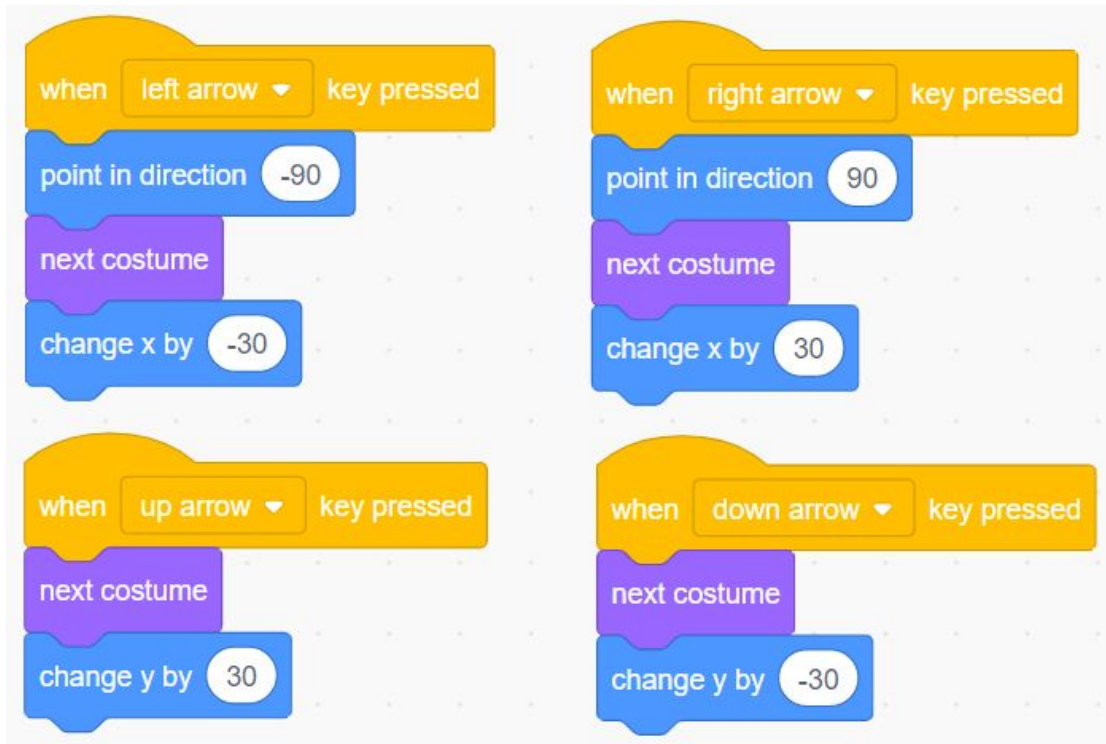

5) Setting up variables

Variables are <u>changeable values in scratch</u> that are used to store information. In our project, we need a variable called "Eggs collected". To access variables, click on the Variable tab, and then "Make a Variable".

6) Programming the eggs

We use the **clone function** to repeatedly create multiple copies of an egg (with a random design) at different locations. We can create these clones a little differently by varying the costume (with your designs), color effect and size! We then program the egg to continuously sense if it is touching the rabbit. This would simulate the rabbit collecting an egg, and increase the "Eggs Collected" count!
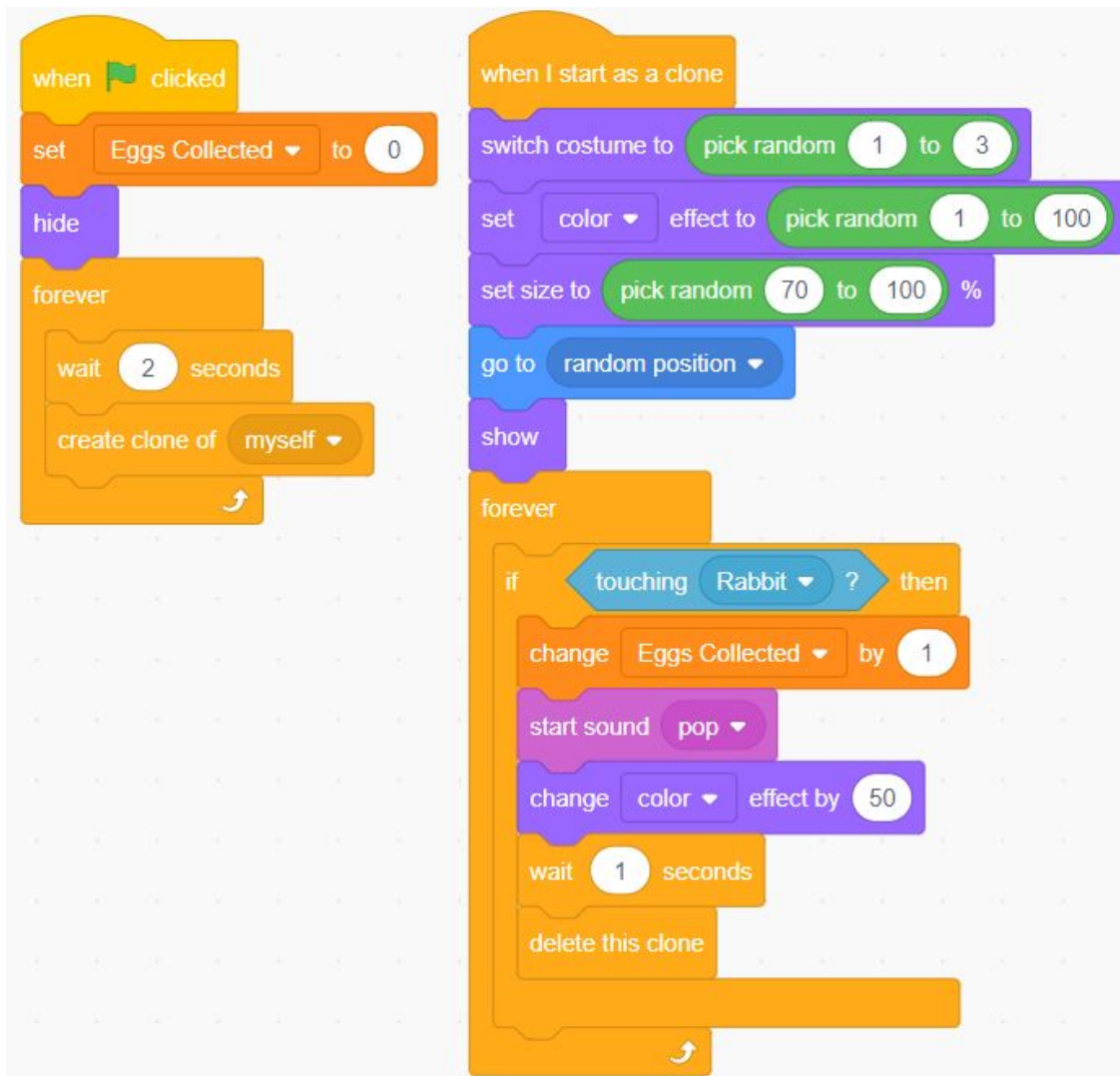
Congratulations! You have successfully completed the project.

Happy Easter! We hope you enjoyed making the game.