How to write games, animations and stories using SCRATCH for primary schools

Lesson Plan 7
Computer Games

Mathematical Skills / Concepts
Scratch Features
Curricular Links
Problem Solving, Variables, Time Sensing
Mathematics, Art, Language

lero THE IRISH SOFTWARE ENGINEERING RESEARCH CENTRE

ICS SKILLS CERTIFICATION BODY OF THE IRISH COMPUTER SOCIETY

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Learning Objectives

The child will:

- Create a game which uses sensing.
- Use sensing to effect change in a game.

Teacher Tip

When you find a game you like on http://scratch.mit.edu, you can click on the "See inside" button to view the scripts and see how the project was made.

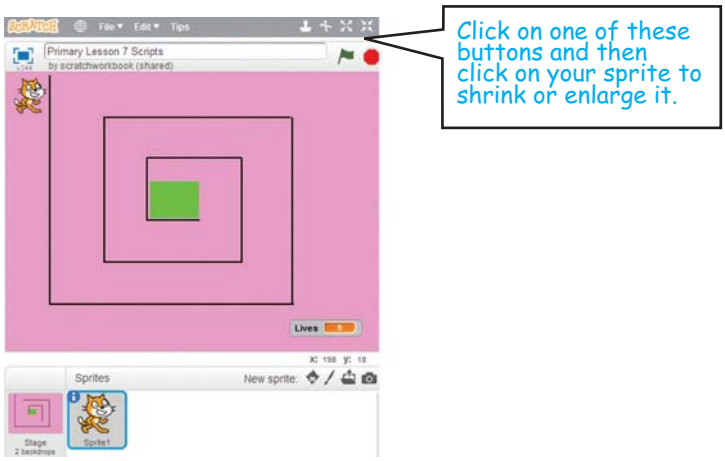
Introduction

- View some of the sample games in Scratch.
- On the Scratch website at http://scratch.mit.edu click on Explore and then Games.
- Have a discussion with the children about the different games they enjoy playing. Look at the code in the sample games and chat about how this code could be altered to make other games.

Maze Game

The touching block under Sensing gives us a true or false response. We can then create scripts which do different things if the answer is true or false.

- Children will create a game where a sprite moves around a maze, avoiding certain obstacles.
- First we will create a backdrop. Click on the stage and then click on the Paint new backdrop button. Design a maze using the paint features.
- Add a sprite. Adjust the sprite's size to fit the maze.



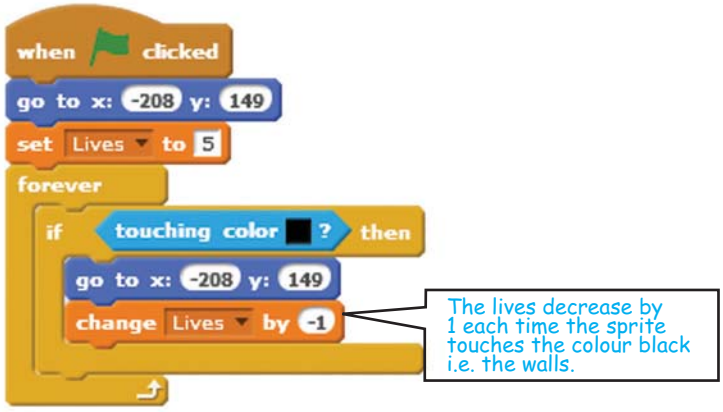
- Program the sprite to move up, down, left and right.
- Remember to click on the sprite in the sprites area before starting your code.

Challenge Time 1!

1. Draw a maze backdrop.
2. Choose a sprite and program it to move around the maze.
3. Ask your friends to play with your maze and give you some feedback.

Sensing

- If the sprite touches the wall, we want it to return to the start. We will use the touching block to do this. The walls of this maze are black so we will create a script where, if the sprite touches the colour black, it must return to the start.
- The sprite will start with 5 lives. Each time it hits off the wall, it will lose a life.



Ultimate Challenge!

1. Draw a maze backdrop.
2. Choose a sprite and program it to move around the maze.
3. Give the sprite 5 lives.
4. Ask your friends to play with your maze and give you some feedback.

Notes