



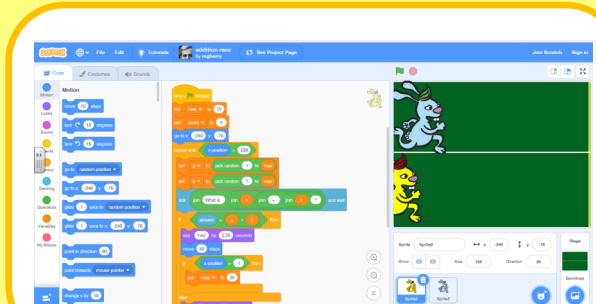
Computing

We are Game Testers

Background Information

In this unit, the pupils will try to work out how some simple Scratch games work. They also look at free online or open source games and share their favourite games with the class. Computer gaming is an example of information technology being used beyond school, and something that many pupils will be familiar with. Games, on digital devices, are simply computer programs, and thus follow precise and unambiguous instructions, implementing algorithms. Some algorithms are shared by many games, from simple games in Scratch to complex 'triple A' titles. Part of playing a game successfully involves a process of experimenting so that the player can use logical reasoning to predict the behaviour of these programs. There are concerns associated with playing computer games – notably the violent nature of some games – so the computer gaming industry has implemented an age-based classification system (PEGI) to help players and parents choose appropriate games. Choosing games wisely and playing in moderation are aspects of the safe use of technology.

SWITCHED ON
Computing



In this unit the children will...

- Describe carefully what happens in computer games
- Use logical reasoning to make predictions of what a program will do
 - Test these predictions
 - Think carefully about computer games and their use
- Be aware of how to use games safely and in balance with other activities.

By the end of this unit....

All children can:

- Understand that computer games are made up of precise instructions for the computer to follow.
- Understand that computer programmers will have implemented many algorithms in making a computer game.
- Use logical reasoning to make predictions about what happens next.
- Suggest ways in which simple computer games could be improved.
- Be aware of and observe age restrictions on commercial games.
- Know that they should tell their parents or carers if they are concerned about something in a computer game.

Most children will:

- Describe clearly what happens in a computer game.
- Conduct tests to check their predictions.
- Notice common features in several game algorithms.
- Understand that playing computer games should be balanced with other activities.

Some children will:

- Explore the Scratch source code for simple computer games.
- Make changes to the Scratch source code for simple computer games.
- Reflect on what makes games enjoyable and sometimes addictive.



Key Vocabulary

Scratch, Screencast-o-matic, web-based, open source games, desktop, laptop, computers, iPads, Interactive White Board, internet connection, games, coding, blocks.