Halloween hunt

Scratch lesson plan – Code Playground

Lesson overview

In this lesson, students will create a Halloween themed game in Scratch. This lesson combines mathematics and art where the students can design their own witch sprite. This interactive approach aims to solidify their understanding of coordinates, and timing and by customising sprites, foster creativity.

Time	Key learning outcomes	Resources
60 mins	• Understand and apply coding concepts such as variables, loops and conditionals • Enhance creativity by designing and customising a sprite to be used in the game • Develop problem solving skills through debugging.	• Laptops or desktop computers • Access to Scratch website - https://scratch.mit.edu.

Content

Introduction

Begin with a brief discussion about Halloween traditions and how games can be themed around such events.

Outline the goal: to create a game where a witch catches the bat within a time limit.

Real-life connection

Conditionals are decisions in code, like 'If it's raining, then you take an umbrella', helping programs make choices based on certain conditions.

In this project the bat will play hide and seek and Wanda the witch will receive clues to where the bat is. How many times can the bat be caught in the 30 second time limit?

Scratch practical

Ask the children to log into Scratch and locate the backgrounds and sprite as described in the workbook. Show the Halloween hunt video as a guided lesson pausing regularly when the pupils need to catch up.

- Children should be able to follow along with the workbook or the guided lesson video
- By the end of the lesson children should be able to create a working program showcasing the Halloween hunt game.

Activity – Halloween hunt

This project uses several features to program movement, variables, loops and conditionals.

Walk the children through scripting the witch sprite to move and how she receives the clues to where the bat is hiding.

"What clues do you think can be given in a game of hide and seek? "

This programme uses variables. Discuss with the class why variables are important to the project and how they work.

Scratch practical

Using the video and workbooks support the children to follow the instructions and complete the coding project. Have them think of other ways to enhance the project if they have extra time.

Activity wrap up

Prepare to share your project with the class

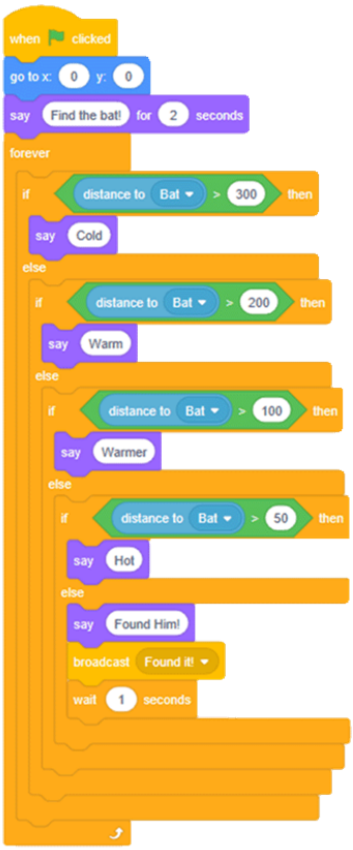
- Can you change the score by 10 every time Wanda the witch finds the bat?
- Can you change the game time to 60 seconds?

Encourage customisation:

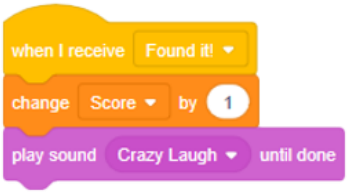
- Make the timer start after the instructions
- Play a drum beat if you reach 5 points.

Code snippets

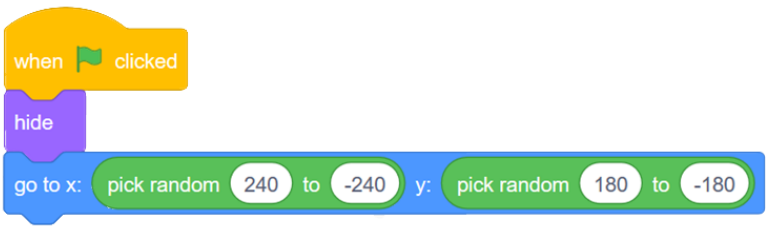
Witch sprite

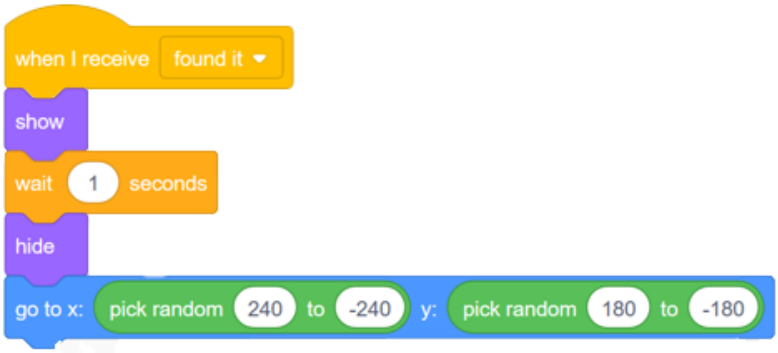


Stage



Bat





Summary

The following information is an example of what a child at an expected level would be able to demonstrate when completing these activities with additional examples to demonstrate how this would vary for a child with emerging or exceeding achievements.

Assessment guidance

Differentiation – Lower ability/ASN

- Provide visual guides or printouts of the scripts
- Focus on using the editing tools to create a sprite before adding other features
- Allow paired work for additional support.

Differentiation – Higher ability/extension

- Challenge students to create multiple levels
- Encourage the use of more complex code blocks or custom variables
- Challenge students to make the code more efficient.

Plenary

- What was the most enjoyable part of creating this project?
- How does the 'if' statement control the game's flow when the witch catches the bat?
- What other features could you add to make the game more exciting?

Assessment questions

1. How did you detect when the witch sprite touches the bat sprite?
2. How did you ensure the bat appeared in random positions?
3. How did the variables help in the game?