

Lesson Plan - Scratch

Introduction to Conditionals

Code Playground



Learning objectives

- "Using my knowledge of conditional statements, I can create a game of Rock, Paper, Scissors with Scratch"
- Pupils should be taught to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts

Resources

- Laptops or desktop computers
- <https://scratch.mit.edu>

Main activity

Ask the children what a 'condition' is.

A condition is a bit like a rule that needs to be met BEFORE something else can happen, for example:

- IF you eat all of your dinner, THEN you can have dessert
- IF it doesn't rain tomorrow, THEN I will clean the car
- IF you study hard, THEN you will get good grades

Can the children think of any other examples?

Ask the children to stand up. They are going to simulate a computer programme responding to conditional statements. If children should sit down if they hear a statement that isn't true about themselves. Some examples can include:

- If you walked to school today, then sit down
- If you have a packed lunch, then sit down
- If you have brown hair, then sit down

Repeat this activity until there is only one child still standing. The child that meets all of the conditions is able to make it all of the way through the computer programme.

The children will now be using the Scratch editor to create a game that uses conditional statements and variables. Ask the children if they can find a block that might help them create conditional statements.

The children will now create the classic game Rock, Paper, Scissors so that they can play against the computer. Can they think of any conditionals that they might use

The game will be created so that the sprite makes a random 'choice' of rock, paper or scissors when the input is selected.

Differentiation

Lower Ability/ASN

Build a skeleton code, that requires the children only to complete the conditional statements

Higher Ability/Extension

Direct the children to the Google Blockly maze game to help embed learning of conditionals

Think of other games or activities that could use conditional statements, especially ones that use more than three conditions. For example, a magic 8 ball

Can the children use the existing programme and change it to create the new project

Plenary

Have the children play the game against each other, or play themselves against the computer

Assessment Questions

Can you explain what a condition is?

What is a conditional statement? Give examples