

# Broomstick race (S)



## Activity Structure – 45min

#	Activity	Timing
1.	Introduce project	5 mins
2.	New project & add spooky backdrop	5 mins
3.	Create broomsticks	10 mins
4.	Code & test	10 mins
5.	Add speed changes	5 mins
6.	Debug & Demo	5 mins

## Overview

In this playful magic-themed project, children learn how to manipulate the speeds of various characters. They choose which broomstick should win, and make sure it moves the fastest by the end of the race.

A great project for developing/reinforcing number sense and logical thinking.

Can be extended by addition of sound clips with “Go!” or an invented magic spell to start.

## Step by Step

- In a new project, select a spooky background.
- Delete the cat, and create a new character, tapping immediately on the paintbrush to draw our first broomstick.
- Draw a simple broomstick using one or two shades of brown. Bushy part is usually on left so the broomsticks fly right.
- Create 1-2 more broomsticks, by adding a new character and selecting the broomstick previously drawn. Arrange starting positions partially hidden off to left of screen.
- Code the first broomstick. Talk about which kinds of blocks we need: blue movement blocks to get across the screen, and a green flag from the yellow blocks. Talk about the orange speed block and add in.
- Code additional broomsticks, varying the speed. Do we always know who will win a race? Will they go the same speed all the way through the race?
- Test: which broomstick wins? Does it get to the finish line? Adjust the numbers below movement blocks.
- Full project: Add several blue movement blocks and orange speed modifiers per broomstick so it's not so predictable.. NB children can choose any blue movement blocks to make the race more fun!

# Code Sheets

## Basic project

### 1<sup>st</sup> broomstick:



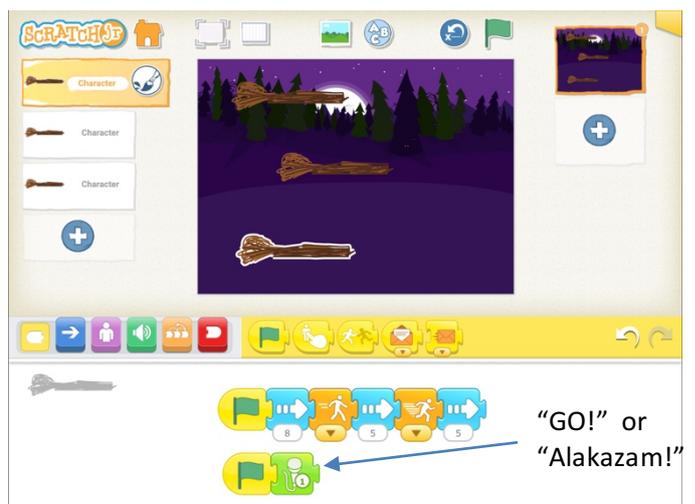
### 2<sup>nd</sup> broomstick:



### 3<sup>rd</sup> broomstick:



### Extension:



### Simplification:

Younger children can draw only 1 or 2 broomsticks and just use one speed setting and one movement block for each.

### Extension activities:

Children can add a "Go!" or "Alakazam!" recording to start the race.

They can also draw characters riding the broomstick (within same character as broomstick)

They can be challenged to make the broomsticks tappable to put on a burst of speed: select desired broomstick, add new line with 'On Tap' yellow block, then closed message yellow block, then an orange speed block on quickest setting and a blue arrow block set to number to reach the finish line.