



# 1. Zzub Zzub

## Activity Structure – 45min

Activity	Timing
Warm up Game	5 mins
Introduce Story and Project	10 mins
Main Activity	25 mins
Final test & debug	throughout
Share with group	5 mins

### Overview

*What goes zzub zzub zzub?*

*A bee flying backwards.*

Let's create a simple animation to accompany this joke.

### Learning Objectives

- To use wait blocks.
- To draw a simple character in the Paint Editor.

### National Curriculum

- create and debug simple programs
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

### Warm up game: Beat the Teacher

- Put the flash cards for the blocks that you will use today in a pile. Play Beat the Teacher. *If you can correctly tell me what a block is for you get a point but if you get it wrong, I get a point. Let's see who can get the most points.* Run through each of the blocks to check children know what they are used for. If you have lots of new coders encourage them to have a guess.

### Introduction (discuss the project together, share ideas and create excitement)

- *Do you like to tell jokes? Does anyone know any jokes?*
- *My favourite joke is about a bee. Show the children the project.*
- *Let's have a look at the code first. How many sound recording blocks do I have? Why do you think there are two? Let's run the project again to see if we can work out why.*
- *Can you see the wait block and the show block? Let's read this line of code and predict what will happen. [Start on green flag, Record1 (joke) Wait 10, Show, Record2 (punchline)]*
- *What will the other scripts of code make the bee do? Will the bee do the movements at the same time, or sequentially (one after another)? How do you know?*
- *Let's play the project and see if our predictions are right.*
- *Some people may want to draw a bee while others will prefer to edit a library character.*
- *There is a very important point to make about drawing the bee: if we want our bee to fly forwards we should draw the bee's face on the right-hand side, but if we want our bee to fly backwards we should **draw the bee's face on the left-hand side.** Show the children the advanced version of this project to demonstrate this.*

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## Main Activity Key questions and teaching

1. Choose a background from the library.
2. Use the Paint Editor to draw a bumblebee character. If you have any children who would prefer not to draw the bee they could edit the fly character instead (see notes under Simplifications).
3. If there are children who want to draw a bee remind them that the face must be on the left-hand side. Have images of the bumblebee available for less confident children.
4. Position and hide the bee character.
5. Let's code the bee. Start by recording the joke in in two parts so that you have one block for the joke, and one block for the punchline.
6. Let's do the rest of the bee's code: [Start on green flag, Recording 1, Wait 10, Show, Recording 2] *How long will your wait block be for? What happens if you don't have a wait block? Let's test this script.*
7. *How would you like your bee to move? Which way will be backwards for your bee?*
8. Children can choose their own movements for the bee. Remind them to use a green flag block for the start/trigger, and to end any lines of code with a 'repeat forever' block.
9. *Let's run our project to check it works. Are you happy with your bee's movements? Is the timing right for the joke?*

## Teaching points

- Some children may need support to draw the bee's face as they may not be sure which side is the left-hand side.
- Remind children that the position of the bee's face is important to ensure the bee looks like she is flying backwards.
- More experienced coders could have a go at using negative numbers to make the bee fly backwards, e.g. use a forward block with a value of -5.
- Encourage children to test and debug their code throughout.

## Possible Extensions

- Children could use a messaging block instead of a wait block.
- Have multiple bee characters, with only one bee flying backwards.
- Add a spinning sun and a floating cloud to the background.
- Early finishers could have a go at creating a second page with an animation for their bee.

## To Simplify

- Support children to draw the bee. It is fine if you need to draw the bee for a child as it is not a drawing class. Offer lots of praise for any attempts at drawing.
- Keep the bee's movements very simple.
- Children could edit the fly character to make it look like a bee. Then to make it fly backwards they would need to use a negative value in a forward block, e.g. 'forward -5'.

## Finishing up

- Share the jokes with the group. What did you find hard or easy about your projects today? Did anyone learn anything new?

