OurKidsCode
FAMILY CODING CLUBS

1. Setup
2. Warm up
3. Create
4. Share
5. Reflect
6. Plan

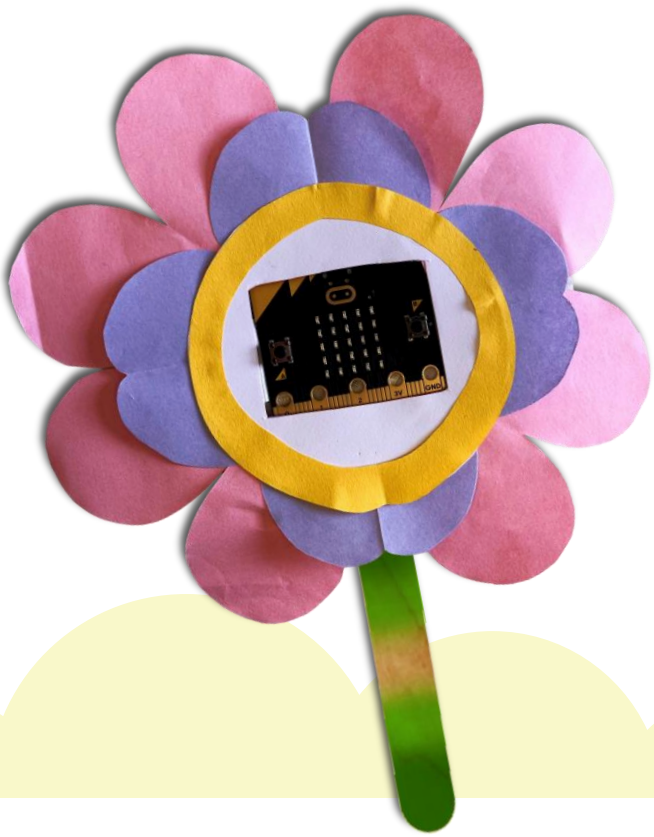
Workshop Guide

MICRO:BIT

COLLECT A BIG STICKER HERE
When you complete the Project!

BEE & FLOWER





Trinity College Dublin
Coláiste na Tríonóide, Baile Átha Cliath
The University of Dublin

Rialtas na hÉireann
Government of Ireland

Taighde Éireann
Research Ireland

BEFORE WE START

Be positive & read the words below together as a family.



BE POLITE AND SAFE

Use kind words, be patient and respectful of others.



BE FRIENDLY

Make friends, ask questions and share learning.



BE CURIOUS

Show interest, share ideas, there's no such thing as "bad questions or wrong answers."



TAKE ACTION

Make decisions, note results and enjoy the activity.



RECOGNISE EFFORT & ACHIEVEMENT

Cheer your own and other's successes alike.

Write or draw your answers to these questions:

If you were a **flower**, what colour would you be?

If you could fly like a **bee**, where would you go?

Think about how to make sure everyone has a good time every time your club meets up. Do you think it would help to have some club rules?

1 SETUP

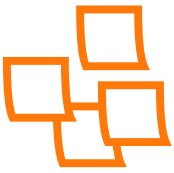
1. **Make a team with another family**
2. **Decide which family is Bee, and which is Flower**
3. **You can swap roles later!**

SELECT YOUR ROLE IN YOUR TEAM:



ORGANISER

- ❑ Write a simple plan with the team
- ❑ Make sure the team starts and stops on time
- ❑ Collect stickers for finishing each step



DESIGNER

- ❑ Turn ideas into a picture for the team
- ❑ Show what the project will look like
- ❑ Partner with maker and coder



CODER

- ❑ Build the brain of the project
- ❑ Operate the laptop/tablet/phone
- ❑ Connect the coding blocks on MakeCode website
- ❑ Test the code and fix mistakes



MAKER

- ❑ Build the body of the project
- ❑ Cut and prepare material
- ❑ Partner with the designer on how to decorate it



REVIEWER

- ❑ In the end, check and review the project
- ❑ Is it working? Does it look right?
- ❑ Any steps missing?

Collect the following for this project:

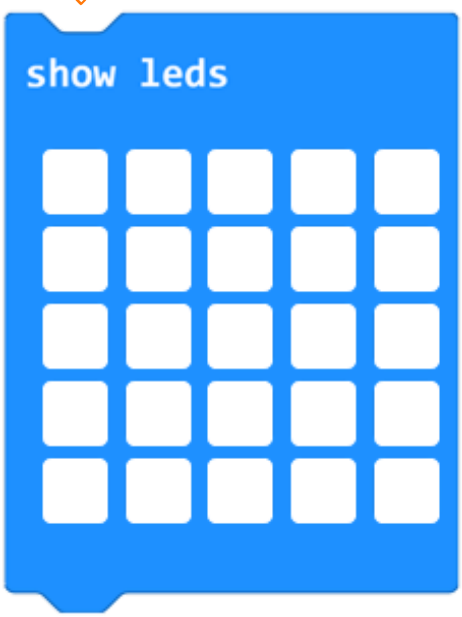
- ❑ Micro:bit
- ❑ Scissors
- ❑ Ice-cream sticks
- ❑ Coloured Paper
- ❑ Masking Tape
- ❑ Art/craft materials

DESIGNER TASK

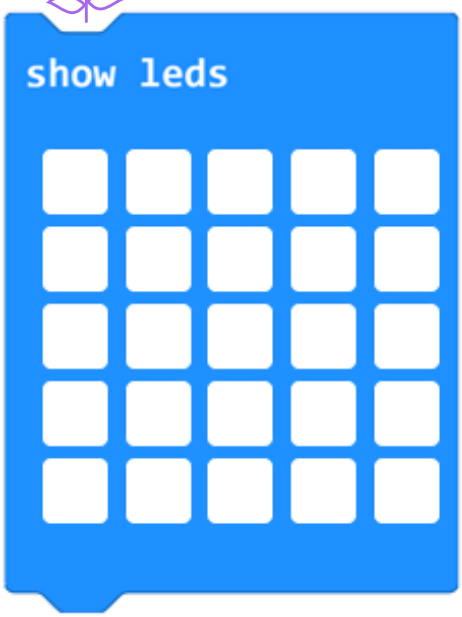
Designers refer to this page once team reaches Step 3. Create.

Bee Team: Draw what your pollen symbol looks when your bee collects it.
Flower Team: Draw what your Micro:bit flower centre would look like.

POLLEN



FLOWER

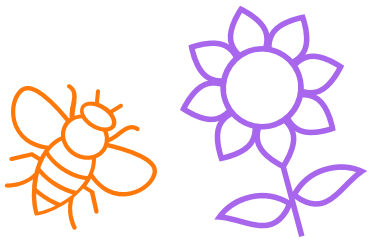


Notes

COLLECT sticker

2 WARM UP

ORGANISER TASK



LET'S PLAY A GAME!

Before you start coding and crafting, let's play a game – **FIND THE FLOWER!**

GAMEPLAY

01. Format

- ❑ All families work together to draw a big flower on a sheet of paper.
- ❑ Mark the centre of the flower.
- ❑ Stick the flower up on a wall or on a table
- ❑ Each family chooses someone to be the Bee on their team.

02. Goal

- ❑ The first Bee is blindfolded and gets a sticker.
- ❑ The Bee stands 2-3 metres away from the flower.
- ❑ The Bee has 30 seconds to try to put the sticker in the centre of the flower
- ❑ The Bee's team can help the Bee but **only** by buzzing louder when the Bee gets closer and quieter when the Bee gets farther away
- ❑ No talking allowed!
- ❑ No peeking allowed!
- ❑ Each Bee takes a turn until each team's sticker is on the flower.

03. Winning

- ❑ The team whose sticker is closest to the centre of flower WINS!
- ❑ The winning team gets a sticker of their choice.

WHY DO THIS FIRST?

It gets everyone active and relaxed, creating a positive, fun atmosphere before starting the project. It builds a warm-up routine, helping families ease into future STEAM activities with confidence.



3 CREATE: Make

MAKER + DESIGNER TASK

Teams, take out your crafting material!



Choose one craft: ☐ Bee **or** ☐ Flower

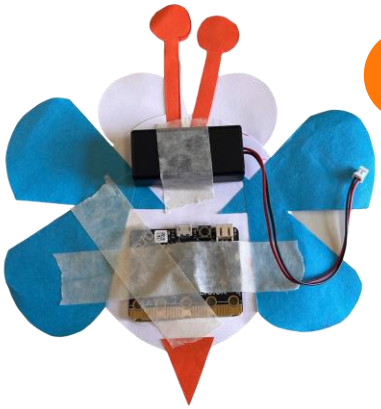
Craft your Bee or Flower as you wish or you can follow the images below.

BEE TEAM CRAFT

1



2



3

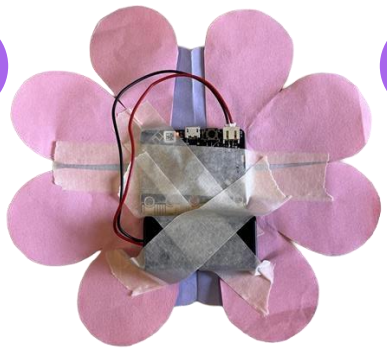


FLOWER TEAM CRAFT

1



2



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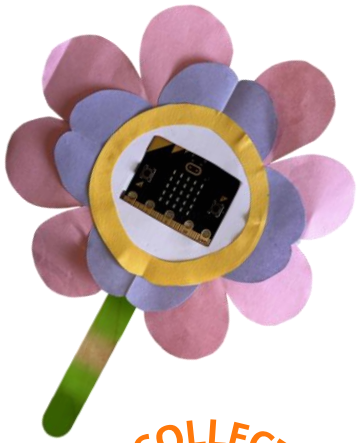


REVIEWER TASK

TEST

Make sure the Micro:bit is securely attached with space left to easily attach the wire and the battery pack.

COLLECT sticker

Coding Video Tutorial

3 CREATE: Code

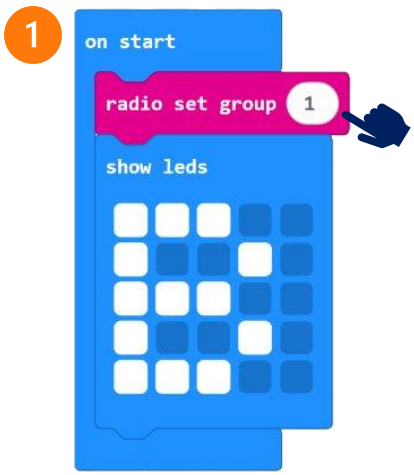
https://ourkidscode.ie/club-projects-bee-flower/

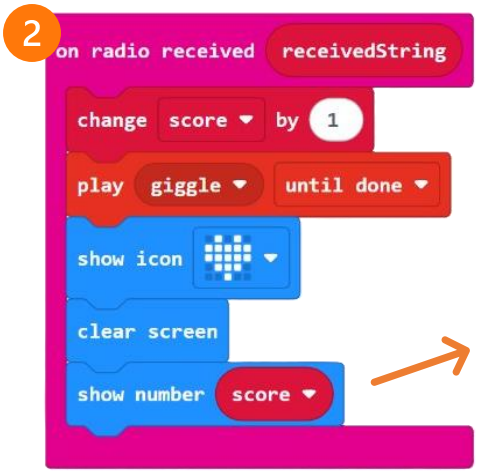
CODER + DESIGNER TASK

Each team picks a radio number between 1 and 255.
Bee and Flower must be on same radio number to be able to connect.

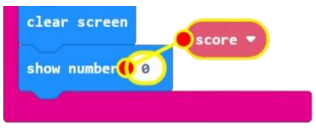
BEE CODE

- ❑ **Bee Coder**, go to makecode.microbit.org. Make a new project and name it Bee.
- ❑ **Step 1:** Make sure the "radio set group" number matches with the Flower in your team. Ask **Designer** to create Bee LEDs design.
- ❑ **Step 2:** Go to **Variable** > Create a variable called **score.** Copy rest of the code as shown below

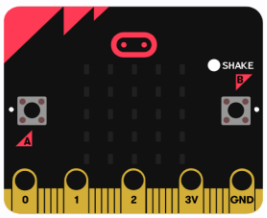




Hint:
Drag Variable score near 0



REVIEWER JOB



Download & Test
Connect your device and click download, then test the code. Does LEDs design appear on your Micro:bit LEDs?

COLLECT sticker

3 CREATE: Code

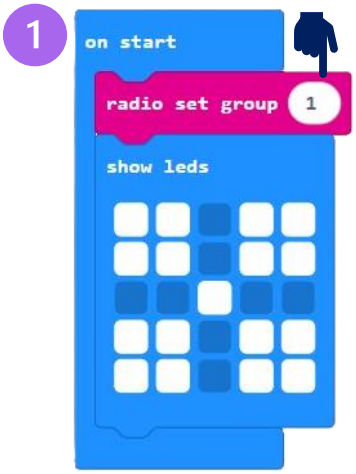
https://ourkidscode.ie/club-projects-bee-flower/

CODER + DESIGNER TASK

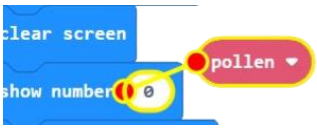
Each team picks a radio number between 1 and 255.
Bee and Flower must be on same radio number to be able to connect.

FLOWER CODE

- ❑ **Flower Coder**, go to makecode.microbit.org. Make a new project and name it Flower.
- ❑ **Step 1:** Make sure your "radio set group" matches with the Bee in your team. Ask **Designer** to create **LEDs** flower centre design!
- ❑ **Step 2:** Go to **Variable** > Create a variable called **pollen.** Copy rest of the code as shown.



Hint:
Drag Variable pollen near 0

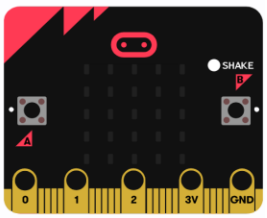


ACTIONS

Button A: Sends Pollen to your team's Bee!



REVIEWER JOB



Download & Test
Connect your device and click download, then test the code. Does flower center design appear on your Micro:bit LEDs and can you send Pollen to your team's Bee?

COLLECT sticker

4 SHARE



CONGRATULATIONS TEAM!
You made your own Bee and Flower!

Play with what you have made!
Look at other team's projects and ask how it went!

5 REFLECT

Discuss with everyone in the room **what you felt and what could you do in the future**.

- ❑ Did you have fun? Did you help someone?
- ❑ What was your favourite part? Least favourite?
- ❑ Learn anything? Feel more confident?
- ❑ Think you and your family would like to do more?

6 PLAN

At the end of every MeetUp, families plan the next one by choosing a project to work on and deciding who will do which tasks to organise it.

You'll find lots of useful documents on our website, including more projects and resources for family-led coding clubs at: https://ourkidscode.ie/club-hub

Acknowledgements and copyright
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