

TITLE: Scratch cat wants to meet you, micro:bit

LEARNING SCENARIO	
School:	Duration (minutes): 90
Teacher:	Students age: 11

Essential Idea:	Micro:bit displays an answer to a sprite's question on the stage.
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Topics:

- Pupils begin to understand how code is always a mathematical problem-solving exercise and how it can possibly lead to ethical issues.

Aims:

- Pupils design and program software that prints values which includes numbers, icons or texts.

Outcomes:

- Pupils check the correctness of the code, and detect and correct errors.
- Pupils learn to predict outcomes, test and explain existing programs.

Work forms:

- individual work
- work in pairs
- group work

Methods:

- presentation
- discussion
- interactive exercise

ARTICULATION**Course of action (duration, minutes)****INTRODUCTION**

Teacher explains and starts discussion with pupils:

Can we connect Scratch and micro:bit?

How?

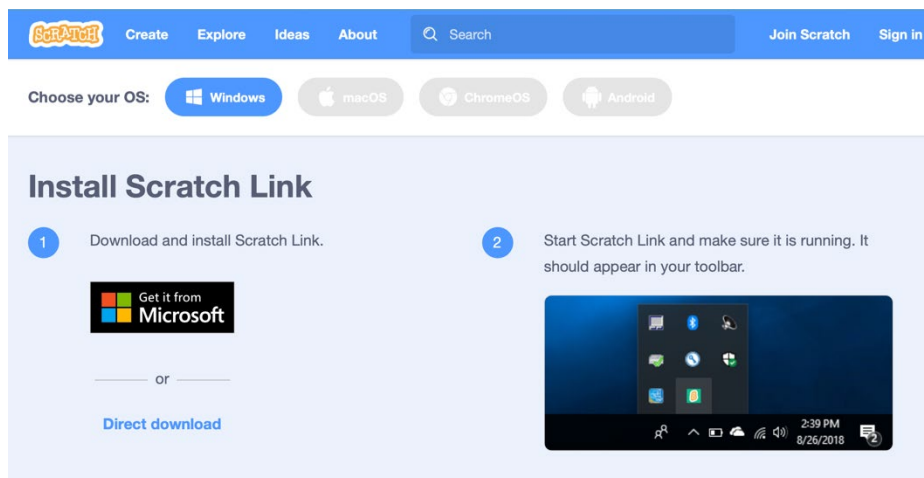
MAIN PART**Topics for discussion**

By clicking on the green flag, the cat sprite asks you a question.

When you type the answer, it is displayed on the micro:bit.

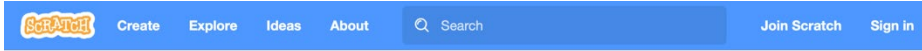
How can this be achieved?

Teacher shows and explains working steps:



The screenshot shows the Scratch website's navigation bar with 'Scratch', 'Create', 'Explore', 'Ideas', 'About', 'Search', 'Join Scratch', and 'Sign in'. Below the navigation bar, there are buttons for 'Choose your OS: Windows, macOS, ChromeOS, Android'. The main content area is titled 'Install Scratch Link' and contains two numbered steps:

- 1 Download and install Scratch Link.
Get it from Microsoft
or
Direct download
- 2 Start Scratch Link and make sure it is running. It should appear in your toolbar.
The screenshot shows a Windows taskbar with the Scratch Link icon.





Scratch Create Explore Ideas About Search Join Scratch Sign in

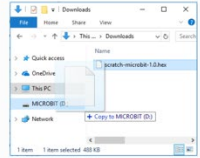
Choose your OS: Windows macOS ChromeOS Android

Getting Started


Install Scratch micro:bit HEX

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Connect a micro:bit to your computer with a USB cable
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Download the Scratch micro:bit HEX file [📄](#)
- 

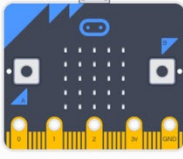
Drag and drop the HEX file onto your micro:bit

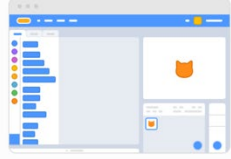


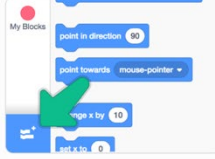
Scratch Create Explore Ideas About Search Join Scratch Sign in

Choose your OS: Windows macOS ChromeOS Android

Connecting micro:bit to Scratch

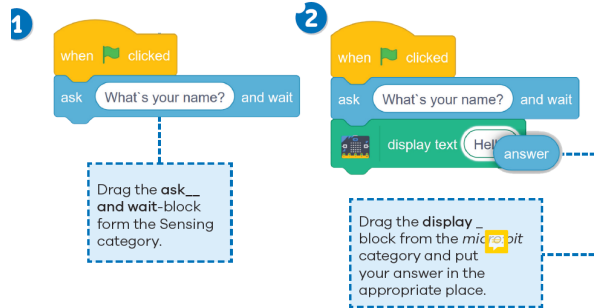
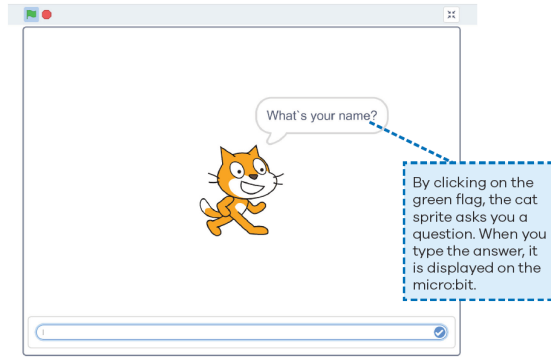
- 

Power your micro:bit with USB or a battery pack.
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Use the Scratch editor.
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Add the micro:bit extension.

Task



Exercise 1

Upgrade the blocks so that the cat asks several different questions and shows the answers on the micro:bit. Save the project to your computer.

Teacher explains and give instructions how to solve tasks.

Pupils solve tasks and present their solutions.

Pupils and teacher discuss and evaluate the presented solutions.

CONCLUSION

We can connect and program a micro:bit by using Scratch.

Methods

presentation
discussion
work on the text
graphic work
interactive exercise /simulation on the computer

Work forms

individual work
work in pairs
group work
frontal work

Material:

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Literature

- <https://scratch.mit.edu/microbit>
- <https://resources.scratch.mit.edu/www/cards/en/microbit-cards.pdf>

PERSONAL OBSERVATIONS, COMMENTS AND NOTES