

RENT-A-TECH

Digital Literacy: Inspiring Educational Resources

The Ingenium Educational Team has compiled a collection of our favourite online resources for digital literacy and skills. You'll also find playful and inspirational activity ideas, to help you introduce your participants to computer programming and computational thinking.

COMPUTER SKILLS

Code.org

Language: many languages available (language toggle at the bottom center of the page)

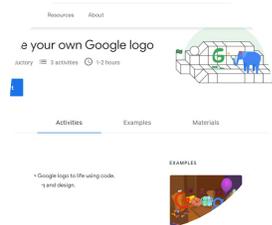
Under the “Learn computer science from home” and “Full course catalog” sections, access a variety of games that teach users how to code, from simple programming languages such as block coding to more complex JavaScript or Python. Many unplugged activities and lesson plans are available, to assist in understanding the fundamentals of coding in a playful way.



Google For Education

Languages: many languages available (language toggle at the bottom right of the page)

This site encompasses a wide collection of digital literacy and computer science resources that include: lesson plans, information guides for parents and teachers, digital creativity tools, and educational apps and games on various topics (such as digital literacy and computer science). Many activities introduce storytelling and art, such as the customized Google Logo using Scratch coding platform, for a more rounded science, technology, engineering, arts, and math (STEAM) approach.



TypingClub

Language: many languages available

This website “gamifies” learning how to type on a keyboard! Kids learn to acquire the correct hands posture to effectively type on the keys. and memorize their positioning.



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MICRO:BIT ACTIVITIES

Micro:bit

Language: English and French (language button located at the top right of the page)

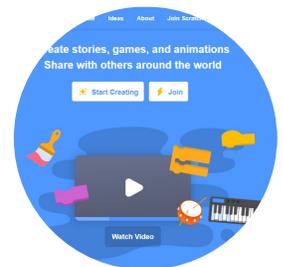
The flagship micro:bit website is full of both quick and more involved projects — for beginners to advanced coders. It also offers lesson plans that use micro:bit in other curriculum subjects, such as geography, history, science, and art. Some of the projects require a physical micro:bit device, while others can be completed using the online MakeCode Editor.



Scratch

Language: Multiple languages, including English and French (language toggle at the bottom of the page)

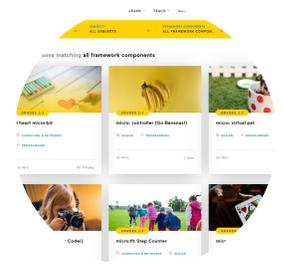
This web coding platform — which can also be downloaded to work offline — was designed to help children learn the basics of computer programming. They can create, code, and share their own stories, from simple to complex, while adding their own personality to their project. With the micro:bit extension, even more interactivity can be added to the projects.



Canada Learning Code

Language: English and French (language button located at the top right of the page)

Devoted to bringing digital literacy to all Canadians, this group offers courses and workshops specifically for girls, teens, teachers, and more! Their website also offers ready-to-use lesson plans, including a wide selection of unplugged activities. Make sure to select micro:bit in the tab “Tools and Languages” located on the right side of the page.



Kids Code Jeunesse

Language: English and French (language button located at the top right of the page)

A Canadian organization dedicated to digital skills learning, Kids Code Jeunesse lets you choose your activity and download the source code to play the games as intended, or make modifications to make it your own.

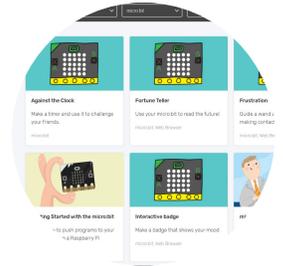


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Raspberry Pi Projects

Language: Multiple languages, including English and French (language toggle at the top right of the page)

You may know Raspberry Pi as an inexpensive microcomputer. Their project page presents ideas on many topics such as photography, space, and cybersecurity. Be sure to select micro:bit in the hardware drop-down list to access projects for this device. Note: some projects require a raspberry pi device (microcomputer).



Tinkercad

Language: Multiple languages, including English and French (language toggle at the top right of the page)

This free online collection of software tools has recently added a Circuits editor, specifically for micro:bits. This allows students to simulate how the micro:bit will respond when connected to real peripheral devices, such as motors, external lights, or sensors. These features are recommended for slightly more advanced students, who have a good understanding of block coding. Lessons and introductions tutorial are available.

