micro:bit Lessons Aligned to Code.org's CS Fundamentals
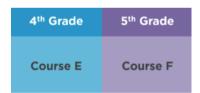

This curriculum includes lesson plans aligned to Code.org's Computer Science Fundamentals curriculum for primary and elementary school students.

Jump to the lessons

Curriculum Alignment

These lessons extend the concepts taught in the Code.org curriculum (https://code.org/educate/curriculum/elementary-school) and bring them into the physical computing world using micro:bit devices and simple drag-and-drop programming blocks in the MakeCode editor.

The lessons provide instructional material for four concept areas and align with the CS Fundamentals courses as follows:

- Course E - loops and functions

- Course F - conditionals and variables

Each lesson consists of a teacher's guide that includes learning objectives, a step-by-step agenda and student assessments, in addition to, supporting documentation and guided practice for each concept.

Pre-requisites

Our micro:bit course lessons are tailored to apply knowledge obtained from the Code.org CS Fundamentals. Before students begin these Course Lessons, we encourage students to first complete all CS Fundamentals as a prerequisite. Students should be familiar with variables from Code.org CS Fundamentals.

- View the CS Fundamentals Course on Code.org (https://code.org/educate/curriculum/elementary-school)

- View the CS Fundamentals Curriculum Guide (https://code.org/curriculum/docs/csf/CSF_TeacherGuide_CoursesA-F_v2a_small.pdf)

Lessons

Lesson

Course E - Loops 1 - Loops and Animations

Visit lesson

Lesson

Course E - Loops 2 - Nested Loops and Scoreboards

Lesson

Course E - Functions 1 - A Simple Function for a Superhero

Lesson

Course E - Functions 2 - Functions for a Digital Pet

(/en/2017-12-04-code_org_course_e_functions_2/)

Visit lesson

(/en/2017-12-04-code_org_course_e_functions_2/)

(/en/2017-12-04-code_org_course_f_variables_1/)

Lesson

Course F - Variables 1 - Variables With A Counter

(/en/2017-12-04-code_org_course_f_variables_1/)

Visit lesson

(/en/2017-12-04-code_org_course_f_variables_1/)

(/en/2017-12-04-code_org_course_f_variables_2/)

Lesson

Course F - Variables 2 - Variables and Emotions

(/en/2017-12-04-code_org_course_f_variables_2/)

Visit lesson

(/en/2017-12-04-code_org_course_f_variables_2/)

(/en/2017-12-04-code_org_conditionals-1/)

Lesson

Course F - Conditionals 1 - Conditionals with the Weather Predictor

(/en/2017-12-04-code_org_conditionals-1/)

Visit lesson

(/en/2017-12-04-code_org_conditionals-1/)

Lesson

Course F - Conditionals 2 - Conditionals with Rock Paper Scissors Game

---

Visit lesson