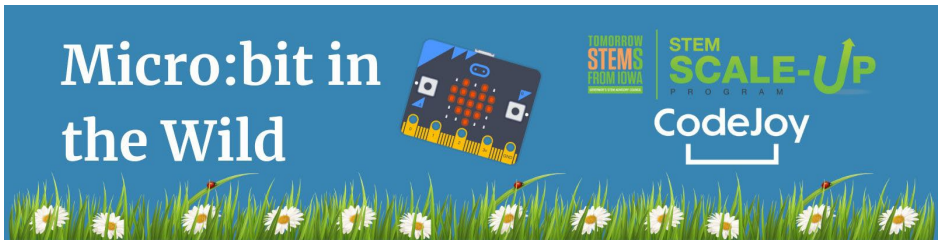
CodeJoy Presents, Micro:bit in the Wild

Grade Levels
3-12

Educational Setting
Both in school and/or out of school.

Award Provides
- 3 micro:bit Club Packs. Each micro:bit Club Pack includes.
  - 10x BBC micro:bit V2 boards
  - 10x micro USB cables
  - 10x battery packs
  - 20x AAA Batteries
  - 10x quick start user guides, safety leaflets, cardboard battery pack holders and stickers

2025-26 STEM Scale-Up Program Summary



Join CodeJoy for the Micro:bit in the Wild program. The goal of the program is to use micro:bit to teach educators about Environmental Literacy through hands-on activities with Computer Science. This program integrates CS and E Lit into any class, subject, or discipline. Each activity is aligned to standards across the curriculum. Participants will learn to code, build, and teach with these tools, and will have time to collaborate with fellow educators.

What worked well for me was...

"Learning more ideas that I can implement in the classroom that are aligned with what they are learning in science, for example weather (wind speed & direction) & cardinal directions... Designing a compass would build onto what they are doing in science and STEM.

Aneela Dawood, STEM teacher, Houston, TX

Activities in the program are inspired by historical figures, naturalists, explorers, and science communicators. Each activity prompts learners to create a code, using MakeCode (block-based programming language), to solve a problem, then use the micro:bit to explore and play.

Requirements to Implement the Program

Educators must **attend 3 three-hour live, virtual training sessions** scheduled flexibly, allowing them to choose the sessions that work best for their schedules.

Educators must **participate in the STEM Council Scale-Up Educator Survey**.

"I loved practicing during class so we would know how to do it!"

Tiffany Trent, STEM/Tech Teacher
Wake Co, NC

Additional Cost(s) to Awardee During Award Period

Optional: Craft supplies and printing costs for student printables

Approximate Sustainability Cost(s) After Award Period

Additional batteries as needed.

Website & Video

go.codejoy.org/iowambitw

Social media

Facebook
@CodeJoyEdu

X
@CodeJoyEdu

LinkedIn,
CodeJoy LLC

YouTube:
@CodeJoyEdu

Iowa Standards Alignment

Example project: micro:bit Step Counter

CS Concepts: In this project, students program the micro:bit to count their steps as they walk. To write this program, they must use the accelerometer as an input to measure the impact of a step. They will also code micro:bit outputs to display the step count and provide other feedback to the wearer. Writing the code will require concepts like conditional statements, loops, event blocks, and variables. This program is designed to collect data for students to analyze.

This project will directly address the following Iowa Core Standards for Computer Science, Math, ELA across the 3-5 and 6-8 bands:

1B-CS-02 Model how computer hardware and software work together as a system to accomplish tasks.

2-DA-08 Collect data using computational tools and transform the data to make it more useful and reliable.

5.MD.B: Represent and interpret data.

W.4.7 Conduct short research projects that build knowledge through investigation of different aspects of a topic.

Professional Development

Duration:

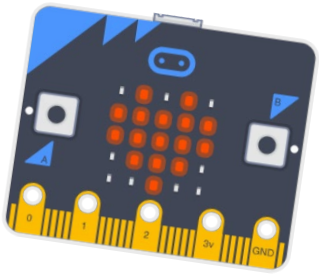
3 three-hour sessions

Dates:

July-September

Location:

LIVE, Virtual



"If you just gave me the micro:bits I would not be able to adequately tap their potential for my students. The PD, spread out with homework, was essential to getting me set up for student success. I now have actionable ideas that I can take to my students and then let them explore."

Tracy Henn, Gifted & Talented, ESL
San Antonio, TX

To Learn More or To Apply: educate.iowa.gov/STEM/ScaleUp