LESSON 35

A connected cross-curricular project

40 minutes | Strand 2: Let's get connected

WHAT THIS LESSON DOES

Select an interest or subject outside coding and create a small working project that displays data, includes interactivity, or offers a short coded performance. Demonstrate one feature to classmates and reflect on connections between coding and personal interests.

WHAT STUDENTS SHOULD BE ABLE TO DO

- Build something small that connects coding to another subject or interest and shows data, interactivity, or a short coded performance
- Show classmates what you made and how it connects to something you care about

BEFORE THE BELL

- Prepare any physical items such as micro:bits if students are likely to select that starter idea.
- Student devices ready with the tools they already use (Scratch, MakeCode, micro:bit, Teachable Machine as available); class save method ready
- Student devices with browser access; micro:bits and webcams available if those routes are chosen

A connected cross-curricular project

HOW THE LESSON RUNS

4 min	introduction	Start
2 min	content	The rules
2 min	content	Four starter ideas
1 min	content	What done looks like
12 min	content	Build the core feature first
7 min	content	Test as you go, then save
6 min	content	Show one thing it does
3 min	content	Make sense
2 min	content	Reflect
1 min	summary	What you covered

TEACHING MOVES

- Circulate the room to assist students in selecting a build idea quickly.
- Before the build timer, require a starter pick or one-line idea so nobody spends build time still choosing.
- Keep whole-class input minimal and focus on individual support during the build phase.
- At about +13 minutes of build, call the mid-build checkpoint: core feature must run once, or cut to the minimum version.
- Use a timer during the show-and-tell activity to maintain one-minute rounds.
- Respond calmly to any live demonstration issues to model problem-solving.

WHAT TO WATCH FOR

- Attempting multiple features instead of one core element: redirect to the main requirement.
- Describing the project instead of running a live demo: remind students to execute the build.
- Exceeding time in groups: enforce the visible timer strictly.
- Choosing starter 4 and training a new model from scratch: steer to a reused model or starters 1 to 3.

DIFFERENTIATION

- Support: Offer starter ideas to students who struggle to choose a theme; default to micro:bit light reading or Scratch pen crest after two minutes undecided.
- Extension: Invite students to consider how their project could be expanded in a future lesson.
- Support: Allow paired work for those needing encouragement during the build.