

Studio: Make your page do something

40 minutes

Project studios (optional extension sessions)

Outcome 2.5

Outcome 1.7

WHAT THIS LESSON DOES

An optional studio build, and the only session that uses the builder's Apps blocks. Pupils build a counter changed by buttons and a text box that adds what somebody types to a list, then find the JavaScript the blocks wrote.

CURRICULUM OUTCOMES

Outcome	What the specification asks for
2.5	Create a small website using HTML and CSS.
1.7	Discuss and implement core features of a structured programming language: variables, operators, loops, decisions, assignment and modules.

WHAT STUDENTS SHOULD BE ABLE TO DO

- Add behaviour to a web page with blocks that write JavaScript (LO 2.5, LO 1.7)

BEFORE THE BELL

- Nothing to prepare. The builder opens on a small counter page.
- Student devices. Nothing to prepare.

Studio: Make your page do something

HOW THE LESSON RUNS

3 min	introduction	Start: what we're building
4 min	content	A click can run instructions
8 min	activity	Make a button change a counter
7 min	activity	Add a reset, and read what the blocks wrote
8 min	activity	A box people can type into
5 min	activity	Your turn: build something that responds
3 min	content	Make sense
1 min	content	Reflect
1 min	summary	What you covered

TEACHING MOVES

- Name the distinction at the start: HTML and CSS say what is there and how it looks. Nothing so far has said what HAPPENS.
- "When clicked, do these things" is a Scratch hat block. Most pupils see it straight away once it is named.
- Nobody needs to understand the generated JavaScript. Seeing their own button label inside it is the whole point.
- Optional and standalone: nothing here depends on having a site already.

WHAT TO WATCH FOR

- Action blocks placed under a button instead of inside it. The button then does nothing, and the block shape shows why.
- A second counter created by accident, so the reset appears to do nothing.
- Dropdowns left pointing at the wrong box, which is why naming them well pays off.

DIFFERENTIATION

- Support: one button changing one counter meets the outcome.
- Extension: a button that subtracts, or a "when the page opens" block.
- Pupils who finish early can label the page so a stranger could use it without being told, which is harder than it sounds.