

LESSON 5

The Numbers, Spreadsheets for Real Decisions

60 minutes

Working with Spreadsheets

WHAT THIS LESSON DOES

Turn your project proposal into a working spreadsheet with real formulas. Learn to build budgets, inventories, and data summaries that update automatically when numbers change.

WHAT STUDENTS SHOULD BE ABLE TO DO

- Understand spreadsheet structure and how cells, rows, and columns work together
- Enter and format different data types accurately, including currency
- Write formulas using SUM, AVERAGE, COUNT, MIN, and MAX with cell references
- Create a working spreadsheet for a real project that recalculates automatically

BEFORE THE BELL

- Ensure students have their Something Real proposal from the prior module printed or available on screen.
- Test the Galway trip budget template on your device; have a backup screenshot or printed version if needed.

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HOW THE LESSON RUNS

Introduction

Key Concepts

Step-by-step Task, Galway Trip Budget

Common Issues

Pick Your Shape

Portfolio Build, Your Numbers Sheet

Reflection

Lesson Summary

TEACHING MOVES

- Model the first formula (SUM) on the whole class together, then pause to let students catch up before moving to AVERAGE. Call out the cell address aloud as you type it.
- When students struggle with range selection, project your screen and walk through it step-by-step: click the first cell, hold Shift, click the last cell, then press Enter.
- Before they start their own sheet, ask two students to show their Galway budget to the class-celebrate the ones where they tested the autofill and saw the totals update.
- Circulate during the Portfolio build phase; if a student's formula shows the formula as text (not a number), pause them and fix the cell format together rather than letting them continue frustrated.

WHAT TO WATCH FOR

- Formula displays as text instead of a number-select the cell, change format from Text to Number, then re-type the formula starting with =.
- Student forgets the = sign at the start of a formula-remind them = always starts a formula; without it, the spreadsheet treats it as plain text.
- SUM or AVERAGE applied to the wrong range-have them click and drag to select the correct cells, then re-enter the formula.

DIFFERENTIATION

- Support: Assign Budget or Inventory shape to students unsure of formulas; both use the same three-part structure as the worked example. Sit with them during the task and model the second formula (AVERAGE) together.
- Support: Print a blank Numbers Sheet template with headings and column labels already filled in, so they only have to enter data and write formulas.
- Extension: Challenge confident students to try Timeline or Survey Results shape, or ask them to add a fourth formula type (like IF) to flag items that exceed a budget threshold.