

Error Values: #NAME!, #DIV/0!, #REF!, #VALUE!

60 minutes

ICT Specialism 3: Spreadsheets

Outcome M3.U2.3

WHAT THIS LESSON DOES

Students learn to identify and resolve four common spreadsheet error values such as NAME, DIV/0, REF and VALUE. Through sorting activities, guided practice, and a class portfolio build they fix errors in live sheets and document four examples from their projects.

CURRICULUM OUTCOMES

Outcome	What the specification asks for
M3.U2.3	Create and apply formulas and recognise error values in formulas.

WHAT STUDENTS SHOULD BE ABLE TO DO

- Identify #NAME!, #DIV/0!, #REF!, and #VALUE! causes
- Fix each error type in a live sheet
- Document four errors with examples caused and fixed in personal work

BEFORE THE BELL

- Open the drag-sort activity on the board before step 3; optional: print the eight scenario labels only if you want a paper talk-through first.
- Have one deliberate #DIV/0! visible on the classroom screen for the open.
- Ensure the common issues table is ready for display during guided practice and portfolio build.
- Have one sample sheet ready with a visible #DIV/0! error on the classroom screen. Students missing sm3 files make the VAT practice workbook from the table on their Introduction step.
- Open your sm3_vat_calc_practice on the board with a spare empty area for live demos; confirm both Excel Online and Google Sheets paths if the class is mixed.
- Students without personal Module 3 sheets use sm3_vat_calc_practice; plan two circulate checkpoints (after two errors, and final four-row scan).

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HOW THE LESSON RUNS

5 min	introduction	Introduction
7 min	content	Key concepts
12 min	activity	Which error is this?
3 min	content	Common issues
8 min	activity	Guided practice: cause and fix together
18 min	activity	Portfolio build
4 min	content	Reflection
3 min	summary	Lesson summary

TEACHING MOVES

- Model each error type on screen with a quick live demo; complete one full cause, fix and record cycle on the board before releasing students.
- Encourage whole-class discussion during the sorting activity before any dragging occurs.
- Require in-class completion of sm3_error_reference with a visual scan before dismissal; use homework only for an optional fifth-row extension.
- Checkpoint after two student-caused errors; circulate to verify live practice-copy cells, not only written notes.
- Limit reflection to two specific project examples if time is short after the scan.

WHAT TO WATCH FOR

- Fixing a formula without pressing Enter leaves the error visible. Remind students to commit edits and review neighbouring cells.
- Mistaking #NAME! for #VALUE! when text appears in formulas. Refer back to the spelling-versus-data-type test and the key concepts table.
- Causing #REF! on the real project sheet instead of the sm3_error_practice copy. Stop the room and restate the safety step if needed.

DIFFERENTIATION

- Support: Start on the VAT practice workbook sm3_vat_calc_practice before using personal files; allow paired work on causes, solo write-up of fixes.
- Extension: After the four-row scan, invent an extra error scenario or complete the optional partner recreate challenge.
- Support: Allow paired talk-through during the sorting activity to discuss reasons for placements.