

Data Manipulation: Select, Sort, Copy, Move, Delete

60 minutes

ICT Specialism 3: Spreadsheets

Outcome M3.U3.4

WHAT THIS LESSON DOES

Learn to select spreadsheet ranges accurately before sorting or copying. Practise sorting by one or more columns, copying values safely, and restoring order with an ID column. Apply these skills to organise your project data.

CURRICULUM OUTCOMES

Outcome	What the specification asks for
M3.U3.4	Manipulate and edit spreadsheets and prepare for printing by using features such as changing margins, orientation, page set up, gridlines, selecting cell range and selected charts.

WHAT STUDENTS SHOULD BE ABLE TO DO

- Select ranges and sort by one or multiple columns
- Copy values on purpose and know when not to paste live formulas
- Restore original row order with an ID column after sort experiments

BEFORE THE BELL

- Build sm3_sort_practice (and optional sm3_sort_practice_starter) with headings ID / Item / Category / Cost (€) / Qty / Supplier / Total (€), six stock rows, and =D2*E2 filled through G7. Place copies in the class shared folder and, where possible, each student's Project_Portfolio/09_specialism/sm3 folder.
- The click-by-click instructions for the step-by-step task are on the students' own screens in both app versions, so there is nothing to print for that. The five goals for the quick match check are already in the Common issues step.
- Have the ruined single-column sort sketch ready on the board (Name / Cost pairs intact vs broken) plus the Centra why-care line.
- Board sketch for ruined single-column sort; Centra why-care line; confirm sm3 folder access; prepare starter file (see lesson teacher notes)
- Save sm3_sort_practice (and optional sm3_sort_practice_starter) in class shared / each sm3 folder with A1:G7 headings, six stock rows, and =D*E totals in G already filled; demo whole-range sort, paste values, and optional cut-insert before students start
- Printed matching pairs optional; one live broken-sort fix ready
- Board: default sort pairs; fallback path if sm3_from_template missing

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HOW THE LESSON RUNS

5 min	introduction	Introduction
5 min	content	Key concepts
20 min	activity	Step-by-step task
4 min	content	Common issues
16 min	activity	Independent practice
5 min	content	Reflection
5 min	summary	Lesson summary

TEACHING MOVES

- Demo on screen before students start: the ruined single-column sort then Undo, then a full-range Category sort, then paste values once, and if there is time a cut-insert and a TEMP-row delete. Students do not repeat the move and delete in their own written steps.
- What each student actually produces is five moves only: select, single sort, multi sort, paste values, ID restore.
- Circulate to check full-block selection and formula-bar checks after paste values; note that I2:I7 follows post-sort Total order.
- Write the default sort pairs on the board before independent practice: Category then Cost (€); Date then Hours; Supplier then Qty.
- Fallback if sm3_from_template is missing: duplicate the practice file, rename it sm3_from_template_v3, and apply the same success criteria.
- The quick match goals make a two-minute oral or paper check, either in Common issues or as students leave.
- Keep reflection brief with two volunteers sharing answers.

WHAT TO WATCH FOR

- Sorting only one column: always select the entire range including all columns and the header row; Undo and retry is expected.
- Pasting formulas instead of values: use Paste values / Values only; confirm the formula bar shows a number.
- Sheets move overwrite (demo/extension only): insert a blank destination row before paste, then delete the empty leftover.
- Breaking references when deleting: delete whole disposable rows (TEMP), not cells inside live formula ranges.

DIFFERENTIATION

- Support: pair students for the step-by-step task; open sm3_sort_practice_starter and go straight to selecting the range.
- Support: sit beside anyone stuck on their project sheet and read the written app steps for inserting the ID column with them (new column A, header, 1 then fill).
- Extension: move-row or TEMP delete as demonstrated; three-column sort; Summary tab with paste values only and a one-line project question note.