



Activity description

This shape and space activity involves designing a new layout for the classroom. Students will measure the furniture, make scaled cut-outs, and place them on a prepared plan.

Suitability and time

Level 1 (Foundation); 1–2 hours

Resources and equipment

Student sheet

Optional: slideshow

Tape measure or 1 m rule, a centimetre ruler, calculator, 1 cm squared paper or graph paper, scissors, glue, a plan of your classroom.

Key mathematical language

Scale, actual size, plan view

Notes on the activity

Before using this activity you will need to prepare a plan of the room in which you teach the class, drawn to a convenient scale. Add the scale to step 4 on the student sheet before you print and copy it.

During the activity

The slideshow can introduce this activity. Discussing the layout of a kitchen can help students to start thinking about good design. Ask questions about why certain appliances tend to be put in particular places. This should help students ask themselves the same sort of questions regarding the layout of a classroom.

You could give students a list of some of the measurements they need in Step 3. Students could work in pairs or groups and share information. It will be difficult if all students try to measure the same piece of furniture at the same time, so you may need to give them advice about how to go about this.

Points for discussion

Before students start work, discuss the scale of the plan and make sure that they understand that the furniture needs be drawn to the same scale.

You could also go through the order of the work with them (such as: measure furniture, calculate scale measurements, draw, cut, and try designs).

Ask for ideas about how students will make sure that they leave enough space to move about in the room, how they plan to produce multiples of some pieces of furniture, and so on.

Extensions

You could adapt this activity for use in other rooms, such as student common room, canteen, or library.