

Lesson 32 · engineering

Irish Engineering and a Problem to Solve

Learning objectives

- Explore how Irish engineers solve real community problems
- Model one key engineering idea by building a paper arch that holds a load
- Define a real local problem with its user need, risks and success criteria

Materials

Item	Qty	Per	Source	Low-cost substitute
card strips (about 30 cm long)	1	group	classroom	strips cut from a cereal box or thick paper
heavy books to hold the arch feet	2	group	classroom	any two heavy objects with a straight edge
small weights (coins or metal washers)	10	group	classroom	board-game counters or clean pebbles
clipboards	1	group	classroom	a stiff piece of card behind the paper
Irish engineering images for the IWB (arch bridge, wind farm, greenway)	1	class	classroom	the three examples are already written into the step 2 table on screen
Design Brief page	1	pupil	classroom	rule up a plain sheet with the headings problem, user, need, risks, success criteria, sketch

Safety watch-point

Outdoor walk: agree clear boundaries, stay with the class, check the weather and mind slippery ground. Keep fingers clear when a loaded paper arch flattens suddenly, and use only light weights. Adult stays with the class throughout the fieldwork.