

Design Brief

Test, improve and present

engineering

What you need: group prototypes built earlier in this project · completed Design Brief pages from earlier in this project · Investigation Journal testing page · Investigation Journal results page · small weights (washers, coins or 100 g masses) · jug of water and shallow tray · teaspoon for counted water pours · classroom books for stand or holder load tests · soft ball · stopwatch or class timer · metre stick or 30 cm ruler · masking tape · scrap card offcuts · string · tissues or paper towels (for dry-check under shelters) · cloths for spills

Words to use

Success criteria · Evidence · One improvement · Design process

The problem

Use first-test evidence to make one improvement so the prototype better meets the success criteria

Sort these words into Change, Measure and Keep the same

nothing yet (this is the baseline test of the finished prototype) · whether each criterion is met, with a count, time or clear observation · the prototype as built earlier in this project · the success criteria from the Design Brief · the test method for each criterion (same load, pour, roll or timing)

Change – the ONE thing we change

Measure – the ONE thing we measure

Keep the same – to make it fair

What we promised it would do

The change is clearly linked to first-test evidence · The target criterion is re-tested fairly · The group can say whether the result improved, stayed the same, or got worse

How it did against each one

Success criterion	How we tested it	The result

What another group noticed



Lesson 36

The one thing we changed



How it worked before, and after



How close we are to meeting the brief

