

**Design Brief****Build a strong, stable tower****engineering**

What you need: newspaper sheets · masking tape roll · drinking straws · card offcuts · test weight (small bean tin or about 200 g mass) · metre stick · Investigation Journal page

Words to use

Free-standing · Stable · Prototype · Improvement

The problem

Use the test result to make one deliberate improvement so the tower is more stable, taller where safe, or better at holding the weight.

Sort these words into Change, Measure and Keep the same

each group's tower design · height in centimetres, free-standing yes or no, and whether the weight was held · the same test weight at each station · the same measuring method with a metre stick · hands off for the free-standing check · the same five-second watch after the weight is placed

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 links to a weakness the test showed · The tower is still free-standing · The group can name which design choice they changed

How it did against each one

What we promised	What happened

Every tower, tested the same way

Whose tower	Height (cm)	Free-standing?	Held the weight?



Lesson 32

The one thing we changed



How it worked before, and after

