

Choosing materials for a build

engineering

What you need: plastic sheet samples (about 10 cm square) · aluminium foil samples (about 10 cm square) · card samples (about 10 cm square) · cotton fabric samples (about 10 cm square) · paper samples (about 10 cm square) — extension only · shallow water tray · plastic dropper or teaspoon · identical metal washers or 1 cent / 2 cent coins · hardback books to use as load-test supports · cloths or paper towels for spills · Investigation Journal page

Words to use

Property · Design brief · Justify

Our question

Which materials have the properties our seed-tray shelter needs?

I predict...because...

Sort these words into Change, Measure and Keep the same

the material sample · water behaviour, bend behaviour, and number of washers held before clear sag or failure · amount of water offered (same three drops or one level teaspoon, drip only) · water-test setup (sample over the tray) · rough sample size · same washers added one at a time · same support gap for the load test (books about 6 cm apart)

Change – the ONE thing we change

Measure – the ONE thing we measure

Keep the same – to make it fair

Our results

What we changed	What we measured

Our choice: finish the sentence

We chose _____ because _____.



Which properties matter most for a roof?



Which properties matter most for a base or side?

