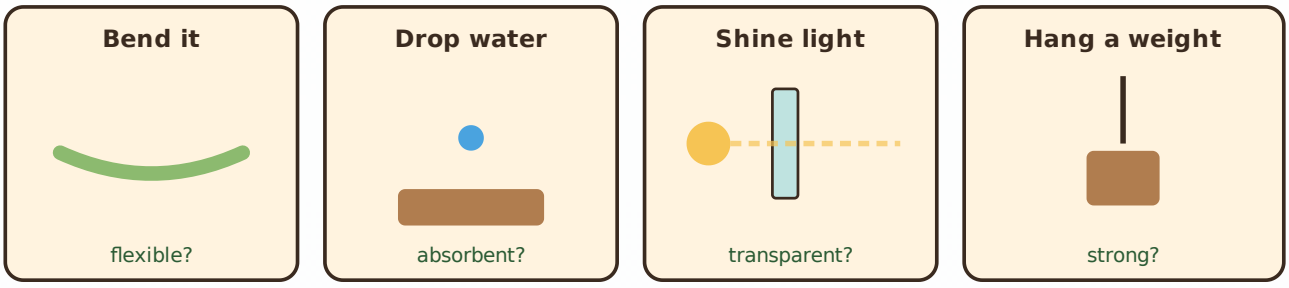
Material Detectives

What is a physical property?

A **physical property** is something we can observe or measure about a material *without changing what it is*. Scientists test properties to decide what a material is good for.



Four ways scientists test a material's physical properties: bending (flexibility), dropping water (absorbency), shining light (transparency) and hanging a weight (strength).

> Some useful property words: **strong**, **flexible** (bends), **transparent** (see-through), **absorbent** (soaks up water), **waterproof**, **hard**, **brittle** (breaks easily).

Be a material detective

Q1. Match each property to its meaning by drawing a line.

Property	Meaning
transparent	
flexible	
absorbent	
strong	
brittle	

Meanings to choose from: soaks up water • can hold a heavy load • you can see through it • breaks easily • bends without breaking

Q2. Choose **three** objects around the room. For each, draw it, name the material, and list one or two properties that make it good for its job.

Object (draw or name)	Material	Property	Why it suits the job

Q3. A window is made of glass. Circle the properties that make glass a good choice for a window, and cross out the ones that would be a problem.

transparent absorbent hard floppy waterproof see-through

Q4. What would happen if a drink bottle were made of **paper** instead of plastic? Use a property word to explain.

There is often more than one good material for a job. A chair could be wood, plastic or metal — as long as it is strong enough to hold you!