



THE BIG IDEA

People make *countless things* — but almost all of them from only a *few materials*: wood, metal, plastic, glass, stone, rubber, leather, and fibers.

A spoon is an **object**; wood is its **material** — what it is made of. The same object can be made of many different materials: a cup can be glass, metal, wood, paper, or rubber, and each one behaves its own way.

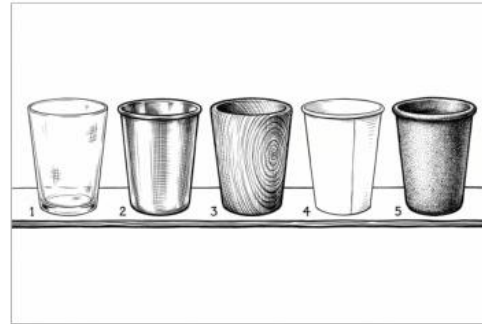


Fig. 1 — one object, five materials: the same cup in 1 glass · 2 metal · 3 wood · 4 paper · 5 rubber.

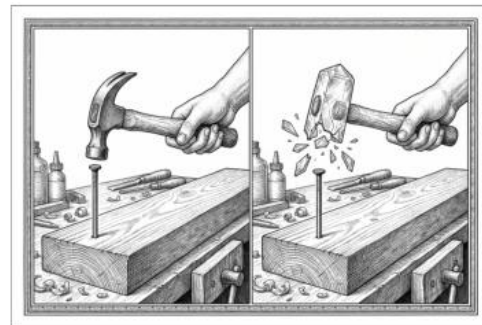


Fig. 2 — the material must match the job: steel drives the nail; brittle glass shatters into shards.

HOW DO YOU TELL MATERIALS APART?

- **Touch it** — metal feels cold; wood feels warm.
- **Heft it** — metal is heavy; wood and plastic are light.
- **Tap it** — metal rings, wood knocks, plastic clicks, glass tings.
- **Test it** — does it bend and spring back, or snap? Does a magnet grab it? Can you see through it?

Every material has its own ways — its **properties**. Builders pick the material whose properties match the job. Pick wrong, and the tool fails — nobody makes a glass hammer.

WORDS TO KNOW

wood

metal

glass

plastic

material

property

flexible

brittle

transparent

WATCH FOR THIS IN EVERYDAY LIFE

- Pick three tools in the house and name what each is made of — “*why that material, and what would be a silly one?*”
- Find something metal that feels cold, and something wooden right beside it that doesn’t — “*same room, same temperature — which one is fooling your finger?*”
- Tap a glass, a pot, and the table — “*can you hear each material’s own voice?*”
- Look at a shovel: metal blade, wooden handle — “*why did somebody build one tool from two materials?*”



wood

wood

metal

metal

glass

glass



1 • MATERIALS ACROSS THE TOP — WHAT DID YOU FIND?

In each column, draw one thing you tagged on the hunt that is made of that material.

 WOOD	 METAL	 PLASTIC	 GLASS
draw a wood find	draw a metal find	draw a plastic find	draw a glass find
tally	tally	tally	tally

2 • SHADE A BAR FOR EACH MATERIAL

Shade one box up from the bottom for every tag your family counted on the board. The tallest bar is the room's favorite material.

wood	metal	plastic	glass

3 • THINK LIKE A SCIENTIST

We found a whole room full of THINGS — but how many MATERIALS did we need to sort almost all of them? Tell someone the surprise.



1 • GUESS, THEN TEST

BEFORE you touch the spoons: draw a ★ star in the box for your guess on each row. AFTER the investigation: draw a ✓ check in the box that turned out true.

	 wooden spoon	 metal spoon	 plastic spoon
 Which feels coldest ?			
 Which is heaviest ?			
 Which is loudest when tapped?			
 Which is hardest to scratch ?			

2 • WHY THIS MATERIAL? — DRAW THE LINE

Draw a line from each thing to the material it is made of.



a window



a tire



a door hinge



a sweater



metal



rubber



wool yarn



glass

3 • THINK LIKE A SCIENTIST

The metal spoon felt the **coldest** — but was it really colder than the room? *Hint: remember the two blocks and the thermometer.* Tell someone what your finger really feels.



VERSE 1

A spoon can be wooden, a spoon can be steel,
A spoon can be plastic — same shape, different
feel!

The spoon is the object, but here's the key:
The stuff that it's made of? Ma-te-ri-al — that's
me!

CHORUS

What's it made of? (Knock knock!) — that one's
wood!

What's it made of? (Ring ring!) — metal,
understood!

What's it made of? (Click click!) — plastic, quick
quick!

What's it made of? (Ting ting!) — glass! Careful
with it!

Tap it, heft it, listen — every material sings.

VERSE 2

Metal feels cold and it's heavy and strong,
Wood is warm and light — it knocks along.
Glass lets the light shine straight on through,
But drop it — it shatters! That's brittle for you.

(CHORUS)

VERSE 3

Bendy like a rubber band? Flexible, my friend!
Snappy like a icicle? Brittle in the end!
A hammer made of glass would be silly, it's true
—

The material must match the job it has to do!

(CHORUS ×2, SECOND TIME KIDS MAKE THE
TAP SOUNDS THEMSELVES)

Tag (spoken, kids): "Wood... metal... plastic...
glass — what's it MADE of?"

How to use it. Play the recording once while everyone just listens. Play it again and join in on the chorus only — that is the part carrying the lesson. By the third time most children have the chorus. Then close the binder and ask what the words actually mean; a child who can sing it and explain it has the idea for good.