SCIENCE INVESTIGATION · FORCES

Which surface slows a toy car down most?

England national curriculum · Year 5 · working scientifically

Our question

On which surface does a toy car travel the shortest distance?

My prediction — what do you think will happen, and why?

What we will CHANGE

the surface on the ramp

— and nothing else. That is what makes it a fair test.

What we will MEASURE

how far the car travels past the ramp (cm)

What we will KEEP THE SAME

- the ramp height
- the same car
- the starting position
- the same push (let go, never push)

Equipment

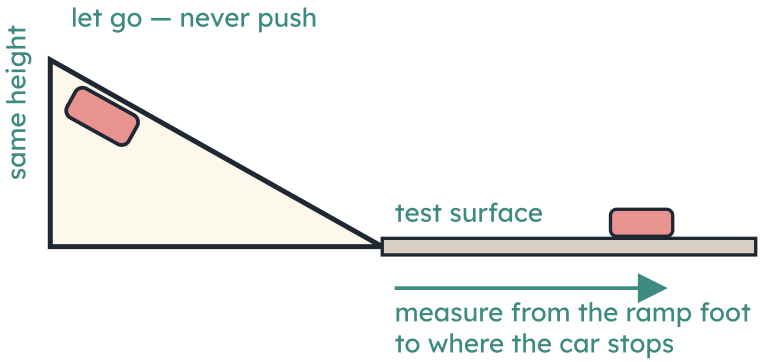
- [ ] ramp and blocks
- [ ] toy car
- [ ] tape measure
- [ ] carpet, wood, sandpaper and foil

Running it: About 30 minutes. Three tries per surface makes the pattern easy to see.

Keep it safe: Clear a runway before each release, and keep fingers away from the rolling car.

STEP 2 · DO IT AND RECORD

Our results



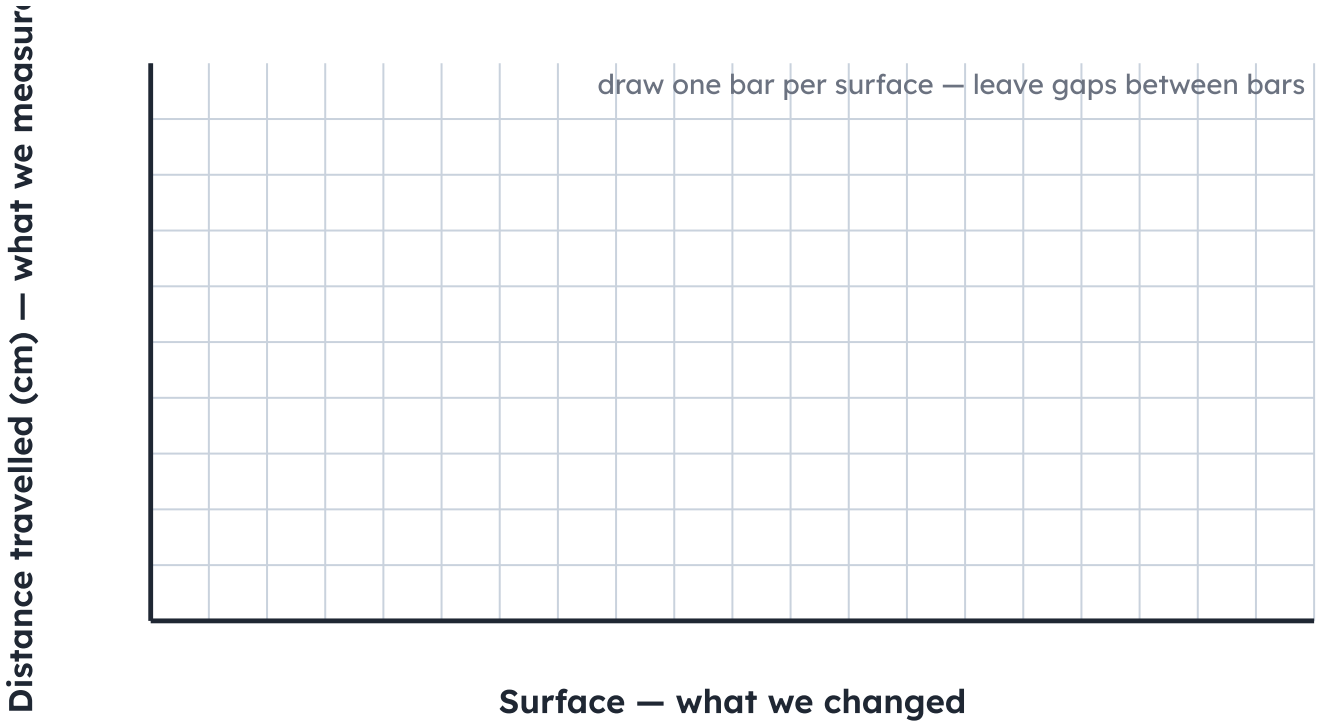
Surface	Try 1 (cm)	Try 2 (cm)	Try 3 (cm)	Best or mean
carpet				
wood				
sandpaper				
foil				

Units live in the headings, so the boxes only need numbers. If a result looks odd, try that one again — scientists call it a repeat reading.

STEP 3 · DRAW THE PICTURE OF YOUR RESULTS

Bar chart of our results

A bar chart suits results you can compare side by side. Number the axis in equal steps and give every bar the same width.



What does your chart show? Say it in one sentence.

STEP 4 · WHAT DID WE FIND OUT?

Our conclusion

I found out that…

I think this happened because…

My results show…

How did it go?

What went well…

What I would change next time…

A new question I could investigate…