

Can This Car Make a Safer Decision?

Use an everyday object as a “car” to notice clues, make one clear rule, test it, and improve it together.

AGES 8–13

15 MINUTES

NO SPECIAL BACKGROUND NEEDED

PRINT OR USE ON SCREEN

TODAY'S MISSION

Help the “car” travel from START to DESTINATION without touching the obstacle. The goal is not speed—it is a clear, testable decision.

START

CUP

DESTINATION

YOU NEED

- 1 bottle cap or coin
- 4 small pieces of paper
- 1 cup or book
- 1 pencil

1

2 MIN

Notice before moving

Say: “Imagine this bottle cap is a car. What does it need to notice before it moves?”

Examples: “The cup is blocking the road.” “It needs to know where the destination is.” “It should notice how much space it has.”

If your child is unsure

- “Point to the first thing the car must notice.”
- “Show me where the rule stopped being clear.”
- “What happened—not what we hoped would happen?”

2

3 MIN

Make one if/then rule

Say: “Choose one clue and tell the car exactly what to do when it notices that clue.”

Example: “If the car reaches the cup, then it stops and turns left.”

If the car notices _____, then it should _____.

What to notice as a parent

- ✓ Does your child look for clues before acting?
- ✓ Can they put actions in order?
- ✓ Do they use the test result to revise an idea?
- ✓ Can they explain why the second attempt changed?

3

2 MIN

Predict before testing

Say: “If we follow your rule exactly, will the car reach the destination safely? Why?”

Examples: “Yes, because it turns before touching the cup.” “I am not sure—the rule does not say how far to turn.”

I predict _____ because _____.

There is no “perfect” route

A surprising result is useful evidence. Try not to fix the route for your child. Ask one more question and let the next test do the teaching.

4

5 MIN

Test, then change one thing

Move the cap only by following the written rule. No fixing it halfway through. Then choose just one change and test again.

☐ Move the obstacle

☐ Improve the rule

Example improvement: Change “turn left” to “stop one finger-width before the cup, then turn left.”

Your 15 minutes together

You just practiced noticing, decision-making, testing, and improvement—and learned something about how your child approaches an unfamiliar problem.

5

3 MIN

Use evidence to explain

Say: “What did the test show? What changed after the second test?”

First, the car _____. After we changed _____, it _____.

Want to continue this kind of learning?

The 12-week Self-Driving Cars Lab develops the same cycle with sensor inputs, decision rules, route planning, two model cars, and repeated safety tests.

SEE WHAT THE
12-WEEK LAB INCLUDES →