Investigation Planning Template

How to plan a fair test

Every fair test has three jobs for its variables. Get these three right and your test will be fair: you **change** one thing, **measure** the effect, and **keep everything else the same**.

Worked example: rolling a toy car down a ramp.

- **Change** (the one thing I make different): the *height* of the ramp.
- **Measure** (what I observe to see the effect): how *far* the car rolls.
- **Keep the same** (so the test is fair): same car, same floor, same starting push.

Prediction: "The higher ramp will send the car further, *because* a higher start gives it more energy to move."

The golden rule: change only ONE thing. If you change two things at once, you won't know which one caused the result.

Plan your own fair test

Plan a fair test for this question:

> ***"Which type of ball bounces the highest?"***

1. Fill in the three jobs of a variable for your investigation.

Variable job	My plan
CHANGE (the one thing I make different)	
MEASURE (what I observe, and how)	
KEEP THE SAME (at least two things)	

2. Write your **prediction**. Remember: say *what* you think will happen **and why**.

3. Check yourself: have you changed **only one thing**? Tick when you are sure.

My test is fair: _____

Exit ticket

For this investigation — *"Does warm water or cold water dissolve sugar faster?"* — write:

One variable to **change**: _____

One variable to **keep the same**: _____