TUMI TUMI SCIENCE & WONDER

Little Why Explorers

From Falling Balls to
Faraway Galaxies

30 BIG QUESTIONS | AGES 5-12

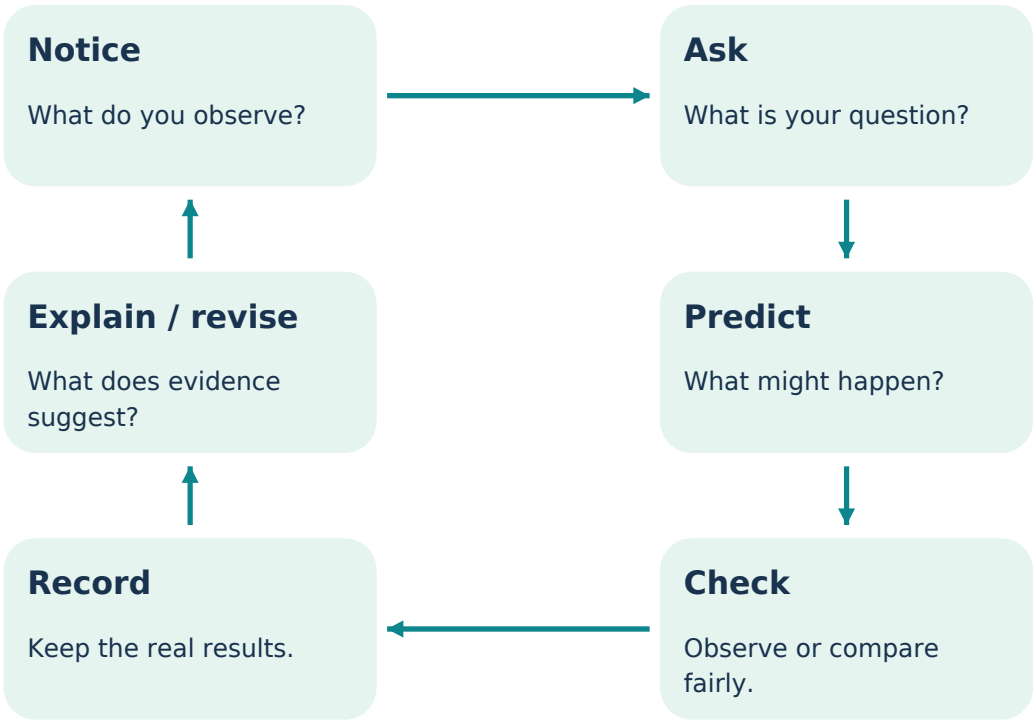


Tumi Tumi
Ask. Explore. Understand.

QUESTION 01 | EVERYDAY FORCES

How do we find things out?

A good question is the start of an adventure.



THE BIG IDEA

Science uses evidence to check ideas.

A useful investigation can loop back and begin again.

QUESTION 01 | LET'S FIGURE IT OUT

A little explanation. A bigger thought.

Mira and Kabir notice that a toy ball rolls farther on one surface than another. Why? Instead of guessing forever, they can look closely, ask a question and make a prediction.

A fair comparison changes one thing at a time. They could use the same ball, the same low ramp and the same starting point, then change only the surface. Repeating the test helps them notice a pattern.

Scientists also use observations, measurements and models. They share what they find, check one another's work and change explanations when better evidence arrives. A surprising result is something to investigate.

THINK A LITTLE DEEPER | OPTIONAL

A prediction says what you expect to happen. Evidence is what you actually observe or measure. One test rarely settles a question. If a result differs from your prediction, check the method and try again; do not change the record to make the prediction look right.

NOTICE, TALK OR TRY

Find two things you can describe using a measurement instead of only 'big' or 'small'.

CHECK YOUR THINKING

Which comparison is fair?

A. Change the ball, ramp and surface together.
B. Keep the ball and ramp the same; change the surface.
C. Choose the result you like best.

Quick check: B. Keep the ball and ramp the same; change only the surface.