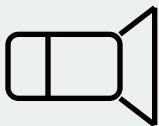


Find the Problem First

20 minutes | Beginner | Pencil; optional intact flashlight with adult

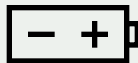
A fictional flashlight will not light. Nothing is damaged or leaking.

SWITCH



Order: _____

DIRECTION



Order: _____

POWER



Order: _____

DISCOVER > PREDICT > SOLVE > EXPLAIN

Predict a cause. Then number the checks: try switch; adult checks battery direction against instructions; adult tries known-good batteries.

Draw arrows between the checks in your chosen order.

Correcting direction makes it work. What does that support?

STOP for damage, heat, or leaking batteries. Adults handle batteries. Keep coin/button batteries away from children. Never open plugged-in devices.

Explain it. Try it with permission. Teach someone else.

Find the Problem First

7-9 | Discoverers | Home | Keep this page separate from the challenge

WHAT THIS BUILDS

Observing, measuring, and recognizing the limits of a safe independent task.

ANSWERS AND REASONING

For this exercise: try switch; adult checks direction; adult tries known-good batteries. Printed numbers: 1, 2, 3. Working after correcting direction supports that installation was the problem. Damage or leakage means stop and get adult help.

SUPPORT AND BOUNDARIES

Use a fictional case if no suitable flashlight is available. Adults handle batteries. Keep button/coin batteries away from children. Never open plugged-in devices or touch leaking batteries.

REAL-WORLD MISSION

Describe one harmless problem using: what happened, what I noticed, and what I tried. A fictional problem is fine.

GROWN-UP DISCOVERY

Change one thing at a time so you can learn which change helped. Ask: What did you replace before checking the simple cause?

AFTER THE MISSION

One thing we noticed: _____

One thing we would try differently: _____

Child: I can explain it / I want another practice / I need help.