Electricity parent guide

You do not need to be an expert to read this book together. Your job is to ask how the explanation works and give the learner room to think.

What this book helps explain

Distinguish voltage, current, resistance, power and energy in a complete circuit.

Three short conversations

First, ask: Does a lamp use up the current that passes through it?

Next, read “Current is a counting rate” together. Ask the learner to draw the idea and explain one unfamiliar term. Use the glossary rather than guessing.

Then use the activity below. Let the learner try before reading the answers on the next page. Ask what information would change the answer.

Try it together

On paper, connect an ideal 6 V source to a 3 ohm resistor. Assume a steady DC circuit and a resistor for which Ohm's law applies. Draw the complete loop and label the voltage across the resistor.

1. What current flows?

2. How quickly does the resistor receive electrical energy?

3. How much energy is transferred in 30 minutes?

A small activity at home

Read a photograph of an appliance label and identify units. Do not open equipment, connect circuits to outlets, or treat this lesson as electrical-work training.

Electricity conversation notes

Answers to discuss

1. I = V/R = 6/3 = 2 A.

2. P = VI = 6 × 2 = 12 W.

3. 12 W × 0.5 h = 6 Wh, or 21,600 J.

Listen for this distinction

Charge circulates; energy is transferred. A watt is a rate, not an amount of energy.

Useful follow-up

Replace the resistor with two 3 ohm resistors in series. Total resistance is 6 ohms, current 1 A, and total power 6 W.

When the explanation is unclear

Ask “Which part are we sure about?” and “Can you show me with a smaller example?” Say when you do not know. Read the relevant chapter together and check its sources if the question goes beyond the example.

Signs of understanding

The learner can explain the idea in their own words, use a diagram or example, and say one thing the example does not prove. Repeating the book word for word is not the goal.

Keep the conversation comfortable

Use fictional people and amounts. Do not require personal disclosures. Short sessions are enough; stop before frustration turns reading into a test.

Reading route

Current is a counting rate; Voltage is a difference between two points; Watts tell you how quickly

Companion to Electricity: NOW It Makes Sense by Sonny Saggar. First edition. This guide uses original supplementary teaching examples.