Energy 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

Identify the energy source, conversion, useful service and losses before judging a proposal.

Three short conversations

First, ask: A heat pump delivers three units of heat for one unit of electricity. Has it created energy?

Next, read “1 What was Tesla trying to collect?” 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

An imaginary heat pump uses 2 kWh of electricity and takes 4 kWh of heat from outdoors during a stated period. Draw arrows into and out of the system. Separately, a battery receives 10 kWh and later returns 8 kWh.

1. How much heat does the heat pump deliver?

2. What is its heating COP for this example?

3. What is the battery's round-trip efficiency?

A small activity at home

Choose one energy claim and ask: What enters? What leaves? Where are the measurements? Who independently repeated the test? Never build high-voltage or concentrated-sunlight experiments.

Energy conversation notes

Answers to discuss

1. 2 + 4 = 6 kWh of heat.

2. COP = 6/2 = 3. The extra delivered heat came from outdoors.

3. 8/10 = 80%. Two kWh were not returned as useful electrical output.

Listen for this distinction

A patent is a documented proposal, not proof that a device delivers useful power. Hydrogen and batteries carry or store energy supplied through other processes.

Useful follow-up

At COP 2 instead of 3, delivering 6 kWh of heat needs 3 kWh of electricity. Explain why performance conditions matter.

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

1 What was Tesla trying to collect?; 15 Why a heat pump can deliver more than it uses; 21 How to test an extraordinary claim

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