Explain a Scientific Concept

SCIENCE

Book Builder

Overview

Students teach a scientific concept to a younger reader by turning it into an illustrated explainer book.

Steps for Teachers

1. Students choose or are assigned a concept from the current unit
2. Students research until they can state the concept in one sentence
3. Students identify the three or four steps or parts a reader must understand
4. Students decide who the book is FOR — name a specific younger grade
5. Students plan one page per step, in the order a beginner needs them
6. Students write each page in plain language, defining any word a younger reader wouldn't know
7. Students illustrate each step with actors, drawings or photographs of a real demonstration
8. Students read the book to an actual younger student and note where they got confused

Example

A student explains the water cycle for first-graders in five pages: the sun heats the puddle, the water rises as invisible vapour, it cools into cloud droplets high up, the droplets join until they are heavy, and the rain falls back into the puddle. Each page has one sentence and one picture, and the word 'evaporation' arrives only on page two, right after the thing it names.

Grading Rubric

Criteria	Excellent	Proficient	Developing
Scientific Accuracy	The concept is correct and no simplification introduces a misconception	The concept is broadly correct with a small imprecision	The explanation contains a genuine error
Audience Awareness	Language and examples are pitched exactly right for the named reader	Mostly appropriate with occasional jargon	Written at the author's level, not the reader's
Explanatory Sequence	Each page builds on the last; nothing is used before it is explained	Sequence is mostly logical with one step out of order	Steps are presented in an order a beginner couldn't follow
Book Craft	Text is easy to read, art supports every page, and the layout is consistent throughout	Pages are readable with some crowding or uneven placement	Text overlaps art or is hard to read; layout is inconsistent