

Evaporation

Daily Required Materials

- Teacher/students' HP Stream & projector
- BasicBoard
- Student notebooks

Lesson 1 Starter Experiment

- Follow directions to assemble a simple BasicBoard system that will capture temperature changes as water evaporates from an object.
- Understand how Logo collects and displays measurements from the evaporation system.
- Describe any patterns you see in the initial data from the evaporation system.
- Describe how the different components of the evaporation system work together.

Additional Materials

- Wire as needed
- Leashed and wrapped TMP 36
- Small sponge
- Foam block
- Scissors
- Large paperclip or wire
- Fan
- Spray bottle with water

Lesson 2 Models and Questions

- Propose a model to explain how matter and energy flow at both macroscopic and microscopic levels within this evaporation system.
- Generate a testable scientific question that will refine, expand, confirm, or refute your current model of evaporation.

Additional Materials

- Worksheet: Models and Questions
- Starter experiment

Lesson 3 Investigation Plan

- Describe what evidence is needed to answer your scientific question.
- Design an investigation and explain how this investigation will generate relevant patterns of evidence to answer the scientific question.
- After peer review of the scientific question and the investigation plan, revise the plan to increase relevance to your question and to generate data that is more accurate and more precise.

Additional Materials

- Worksheet: Investigation Plan
- Starter experiment

Lesson 4 Evidence and Interpretation

- Organize, represent, and analyze data from the investigation.
- Assess whether or not the data collected is sufficient evidence to answer the scientific question.
- Revise your evaporation model and explain how this new model is a better fit for available evidence.

Additional Materials

- Worksheet: Evidence and Interpretation
- Starter experiment

Lesson 5 Presentation

- Create an evidence based account of the investigation process and answer to the scientific question. The format is selected by the instructor and may be a laboratory report, presentation, poster, video, model, etc.

Additional Materials

- Refer to daily required materials