Example Planning Tool

Highlight Evidence

Planning activities where students build a scientific explanation requires a clear goal and opportunities for students to collect the evidence they need to support their claims.

Curriculum: Investigating Water Transformations

Lesson: Investigation 11: What happens to weight and volume when water freezes?

What is the learning goal? (See PLC 1) When water freezes and melts, while volume changes, the weight of a sample stays the same.

What is the Investigation Question? (What do the students have to figure out?) (See PLC2) What happens to weight and volume when water freezes?

What evidence will students need to answer the investigation question?

The volume of a sample of water in a closed container increases when it freezes.

When the water freezes, and when the ice melts, the weight stays the same.

What classroom activities will help students find the evidence?

Collect weight and volume data from sealed bottle of water before and after freezing and melting.

Use mathematics and computation to look for changes in weight when water freezes and melts.

Compare weight and volume data.

What NGSS Practices will Students Use?

- ☑ Carrying out investigation
- ☑ Analyzing and interpreting data
- ☑ Using Mathematics and computational thinking
- ☐ Creating or using representations
- ☐ Obtaining information
- ☐ Other:

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