

**Activity A:**  
**Repeating Trials**

Get the Gizmo ready:

- Click **Reset** (↺).
- Select the **BAR CHART** tab and turn on **Show numerical values**.



**Question: Why is it important to repeat an experiment multiple times?**

1. **Collect data:** Each time you run an experiment with the Gizmo, you complete a trial. A **trial** is single time that you conduct an experiment.

Make sure **Seed type: A** is selected on the SIMULATION pane. The **Water** level should be set to 50 drops per hour. The **Light** should be at 50%, and the **Temp.** should be 18 °C. At these settings, click **Play** to run the Gizmo and complete the first trial. Record your results in the first row of the table below. Then, use the Gizmo to run two more trials.

Trial	Number of seeds	Number of sprouts
1		
2		
3		
<b>Mean</b>		

2. **Calculate:** Find the **mean**, or average, for each trial. Add the number of seeds from each trial together. Then, divide the sum by 3. Record the result in the table, and then repeat the calculation for the number of sprouts from each trial.

3. **Compare:** How do the results from the three trials compare? \_\_\_\_\_  
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4. **Infer:** What do you think caused the differences between the results of each trial? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. **Draw conclusions:** Use the data you collected to explain why it is important to repeat an experiment multiple times. \_\_\_\_\_  
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