

Dissolving time table

Suggested: Years 3-5 | Pupil page

Name: _____ Date: _____

Compare repeat measurements and avoid generalising beyond the tested conditions.

Invented dissolving times in seconds: Condition A (cool water): 90, 86, 88. Condition B (warm water): 44, 48, 46. Same sample amount, water volume and stirring routine were planned. This is a data task, not a practical instruction.

1. Which condition had the shorter time in every recorded trial?

2. Find the range of times in A and in B (largest minus smallest).

3. Find the mean time for A and B.

4. Write a conclusion limited to these results.

5. Name one reason repeated trials are more informative than a single trial.

Dissolving time table | Teacher guide

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Learning focus

Compare repeat measurements and avoid generalising beyond the tested conditions.

Model and use

Read each trial as a separate measurement before calculating a summary.

Read or explore the example together. Let the learner try the task using an accessible response method, then discuss the reasoning. Use the check below to decide whether to revisit a step.

Answers / review criteria

1. B, warm water.
2. A: 4 seconds; B: 4 seconds.
3. A: 88 seconds; B: 46 seconds.
4. Under these sample conditions, the material dissolved in less time in B across all three trials. Do not claim the data establish what every material would do.
5. Repeats show variation and help identify an unusual result. Any practical follow-up is teacher planned with suitable materials and temperatures.

Support

Compare the six numbers first; supply a calculator or omit the mean if it distracts from the science focus.

Challenge

Explain how one very unusual result would affect the mean and what you would investigate before discarding it.

What to look for

Look for a conclusion that mentions the tested conditions and recognises variation.

Print page 1 for the activity; keep page 2 for teaching. Suggested age ranges are selection aids, not curriculum alignment claims. Responses may be spoken, drawn, pointed to, typed or recorded through the learner's usual communication method.