

W4L1 | Counter crossings

Monday | 09:30-10:10 | Introduce | Standard route

Name: _____ Date: _____

Core first. Your teacher will select the questions that fit this lesson. Write, speak, point or dictate your own words. Keep your first attempt so you can improve it.

Work together

Draw two equal-volume regions: 12 particles left and 3 right. Predict the initial net direction.

Your labelled sketch / model

Illustrative model/sample data - these are not measurements made by this class.

Model interval	Left → right	Right → left
Early	8	2
At balance	5	5

1. Use the early crossing counts to calculate net movement and direction.

2. At balance, how much net movement is there? What is still happening?

W4L1 | Continue and improve

Standard route | Use after the core questions when directed

3. Explain one reason a higher temperature can increase diffusion rate.

Optional transfer

Why must the two starting regions have equal volumes if particle counts alone are used to compare concentration?

Improve the same work

One correction I made, and why:

My request for next time: _____