



Unit Overview

Student Materials

Contents

- (Optional) Fine Filters: Pretest
- (Optional) Fine Filters: Posttest



Name _____ Date _____ Period _____

Fine Filters: Pretest

1. Which of the following types of contaminants can nanomembranes filter out of water? For which of these, would you typically use a nanomembrane for removal? Explain why or why not. (1 point each, total of 12 points)

	Can a nanomembrane filter it out?			Is a nanomembrane the best way to filter it out?		
Bacteria	Yes	or	No	Yes	or	No
Why/why not:						
Lead (Pb^{2+})	Yes	or	No	Yes	or	No
Why/why not:						
Salt (Na^+ and Cl^-)	Yes	or	No	Yes	or	No
Why/why not:						
Sand	Yes	or	No	Yes	or	No
Why/why not:						



2. Name two benefits that nanomembranes bring to the filtration of water that help to address the world's problem of a scarcity of clean drinking water. (1 point each, 2 points total)
3. Describe three ways in which nanofilters can operate differently than traditional filters to purify water: (2 points each, 6 points total)



Name _____ Date _____ Period _____

Fine Filters: Posttest

1. Which of the following types of contaminants can nanomembranes filter out of water? For which of these, would you typically use a nanomembrane for removal? Explain why or why not. (1 point each, total of 12 points)

	Can a nanomembrane filter it out?			Is a nanomembrane the best way to filter it out?		
Bacteria	Yes	or	No	Yes	or	No
Why/why not:						
Lead (Pb^{2+})	Yes	or	No	Yes	or	No
Why/why not:						
Salt (Na^+ and Cl^-)	Yes	or	No	Yes	or	No
Why/why not:						
Sand	Yes	or	No	Yes	or	No
Why/why not:						



3. Describe three ways in which nanofilters can operate differently than traditional filters to purify water: (2 points each, 6 points total)