

Everything Floats

Read each source below. Then complete the activities on pages 50–51.

Source 1

Nina dipped her toes into the warm water. Though she had lived just 50 kilometers from the Dead Sea her whole life, this would be her first time “swimming” in it. In fact, Nina had never swum in any large body of water. She was horribly afraid of sharks, but her cousin had assured her that no sharks lived in the Dead Sea. He said, “There aren’t any fish or even plants in there. Only microscopic animals like fungi can survive in that environment.” Her cousin then gave Nina three tips for enjoying herself:

1. Don’t splash the water,
2. Don’t try to swim, and
3. Keep the water out of your mouth and especially your eyes.

He said the trick was to submerge yourself up to your waist and then gently lie back.

Nina did this, and up came her feet! They popped right to the surface. Nina looked around. All of the other “swimmers” were lying back and lounging on the water’s surface. None of them were wearing life vests or using rafts. Nina had heard that you couldn’t sink in the Dead Sea even if you tried!

After floating for ten minutes, Nina emerged from the water and lay on a lounge chair by the shore. In minutes, the blazing sun had dried her skin. It was then that she noticed that her legs and shoulders were caked with a white, grainy substance.

Source 2

Bodies of Water

Name	Region	Percentage of Salt Content
Dead Sea	Middle East	34.2%
Great Salt Lake	United States	5–27%
Atlantic Ocean	<i>many</i>	3.5%
Pacific Ocean	<i>many</i>	3.0%

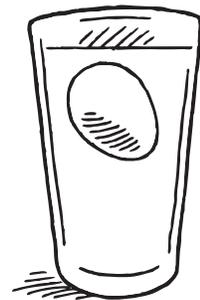
Source 3

Jim said to his little brother, “Want to see a magic trick? Want to see me make an egg float in this glass of water?”

Nick nodded, so Jim dropped his egg into a red plastic cup that had already been filled with water. He waved his hand over the water, and said, “Rise!” The egg rose to the top of the cup and floated there.

Nick shook his head. “I can do that, too. Give me a cup.”

Nick grabbed a blue plastic cup, filled it with water, and dropped his egg in. It sunk to the bottom and stayed there. “No fair,” said Nick. “You used a red cup. I bet that’s your trick!”



Everything Floats *(cont.)*

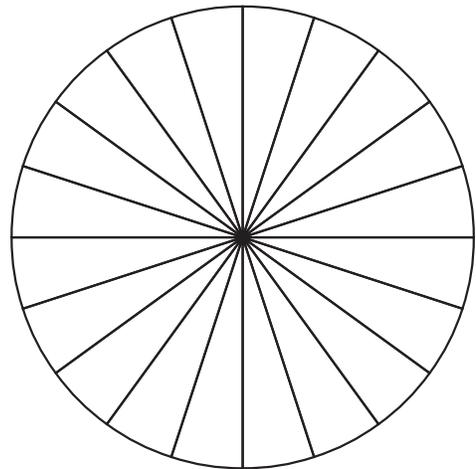
Name: _____

Part 4: Refer back to the sources, and use complete sentences to answer these questions.

11. The Dead Sea has had many names, including “the Sea of Salt” and “the Eastern Sea.” Why do you think it is often called the Dead Sea? Cite evidence in your answer.

12. The circle below has been divided into 20 sections. This circle represents the water in the Dead Sea. First, answer this question: what percentage of water does each section represent? Write your answer in this box:

--



Now shade in the correct number of sections to show the percentage of salt in the Dead Sea. (Hint: Begin by rounding the percentage up to the nearest whole number.)

13. What might Jim have done to make his egg float? Why didn't the egg float in Nick's cup? Use what you have learned from the other sources to give evidence for your answer.

Answer Key *(cont.)*

- The oldest one can be on a golden birthday is 31, because that is the most days a month can have.
- Accept responses that show an understanding of the term “golden birthday.”

Unit 14. Everything Floats (page 49)

Part 1

- Source 2
- Source 2
- Source 1
- Source 1

Part 2

- D
- D
- B
- C

Part 3

The source number is given in parentheses.

- lounging (1)
- microscopic (1)

Part 4

- It is called the Dead Sea because most things cannot live in it. Large aquatic animals like fish can't live there, and neither can aquatic plants.
- Each section represents 5%. Students should shade in seven sections, which would equal 35%.
- From the other sources, we have learned that objects float in very salty water. Using this knowledge, we can deduce that Jim must have added a lot of salt to the red cup when Nick wasn't looking. The egg didn't float in the blue cup because the water did not contain enough salt (or any salt).

Unit 15. Just Deserts (page 52)

Part 1

- Sources 2 and 3
- Source 2
- Sources 2 and 3
- Sources 2 and 4

Part 2

- C
- C
- B
- A

Part 3

The source number is given in parentheses.

- converts (4)
- desserts (1)

Part 4

- It would be most correct to say that the idiom applies to both Sam and Todd. For Sam, the term “just deserts” means “reward.” Her reward for being well prepared is that she enjoys the experience of walking through the desert. For Todd, the term “just deserts” means punishment. He is punished for not taking the trip seriously enough and not preparing

for the harsh desert environment. For failing to do this, his punishment is a miserable experience.

- “The sun beats down on you like an angry insect that you cannot swat away.”
- Students might also label the eyes (third eyelid keeps sand out), nose (nostrils close to keep sand out), coat (thick to protect against sand), hump (contains fat that converts to water).

Unit 16. The Unneeded Earmuffs (page 56)

Part 1

- Sources 2 and 3
- Source 3
- Sources 1 and 4
- Source 3

Part 2

- C
- C
- B
- A

Part 3

The source number is given in parentheses.

- thermometer (3)
- international (1)

Part 4

- Mr. Shirk seems to prefer the Celsius scale. We can infer this when he stresses that “the rest of the world, along with the *entire* scientific community” uses the Celsius scale. After giving the freezing and boiling temperatures for the Celsius scale, he says, “Now isn't that easier to remember?”
- The earmuffs are unnecessary because Alicante is extremely warm at this time. We can guess from the time of year (August) and the information provided in Sources 3 and 4 that Maria means the temperature is 35°C. Using the converter in Source 2, this means that it's about 95°F. That's several degrees warmer than the average August temperature in Alicante. Juan should be packing hot-weather clothing.
- Accept appropriate responses.

Unit 17. A Fallible Friend (page 59)

Part 1

- Sources 1 and 3
- Source 2
- Source 2
- Source 1

Part 2

- E
- A
- A
- B