

“Dead Sea” (PAGE 11)

LESSON PLAN BY ED SNITKOFF AND TAMMIE RAPPS

In the article, students read about the lowest point on the planet, the Dead Sea, and learn of the rich minerals extracted from the region. In this lesson, students will conduct an experiment to demonstrate how the percentage of salinity in water affects buoyancy; study Jewish texts that provide the traditional explanation for the Dead Sea's salinity; and consider the relationship between the Biblical story of the Dead Sea region and its geography.



CONCEPTS AND OBJECTIVES

- ▶ Students will understand the Biblical explanation for the unique composition of the Dead Sea.
- ▶ Students will understand the personal qualities of the inhabitants of Sodom that marked them as wicked.

MOTIVATION AND DEVELOPMENT

1. For this lesson you will need five containers of the same size and shape filled with the same amount of water; a teaspoon; salt; small objects that barely float in water (such as a paper clip, a plastic ball, and a pen); and paper towels.

When students arrive in class, tell them that today they will be conducting a science experiment. Ask:

Do you think that the small objects in the front of the room will float in water? Why or why not?

What do you think would be able to float better in water? Why?

What could be done so that these objects would better float?

Encourage students to share their hypotheses with the class and tell them that they will now test their hypotheses.

Invite four volunteers to come to the front of the room. Have the first volunteer measure one teaspoon of salt into the second container of water. (Do not put salt in the first container; it is the control and must be plain water.) The second volunteer measures two teaspoons of salt into the third container, etc.

Three new volunteers should come to the front. Give each volunteer one of the small objects and some paper towels. Have them each place the objects, one at a time, in the first container and observe how long they stay afloat. Have students repeat this procedure at each container, making sure to dry the objects completely before setting them afloat in the next container.

Ask all the students:

What did you notice about how the objects floated? What conclusion can you draw from this experiment?

Does the conclusion match our original hypotheses? Why or why not?

2. Explain that the class will now learn about the saltiest body of water in the world, the Dead Sea. Ask students to locate the Dead Sea on a map of Israel. (You may want to have them use the satellite map included in this issue of BABAGANEWZ.)

Have any of you ever visited the Dead Sea?

Has anyone heard about how people float in the Dead Sea?

3. Read the Biblical explanation of how the sea became a salty wasteland. Explain to students, according to tradition, that the ancient cities of Sodom and Gomorrah were situated near the Dead Sea.

In *Bereishit* 13:10–12, the Torah describes why Lot chose to settle in the area of Sodom. There he saw rich, fertile soil good for both cattle and crops. How does the region change? What explanation does the Torah provide for the change?

4. Read the article on page 11 of BABAGANEWZ.

The article mentions therapeutic minerals extracted from the Dead Sea and other beneficial healing qualities of the region. Are these qualities surprising, given the Biblical texts we just studied?

How might you understand the natural healing phenomena of the Dead Sea area in the context of the sinfulness of Sodom? [Answers may vary. Some may consider that having to extract minerals from the ground is consistent with Sodom's reputation for withholding goods and being inhospitable and stingy. Others may say that being a major vacation destination is just recompense for a place infamous for its poor treatment of visitors.]

JEWISH TEXTS

Bereishit 19:24–25

Now God had caused sulfur and fire to rain upon Sodom and Gomorrah, from God, out of heaven. God overturned these cities and the entire plain, with all the inhabitants of the cities and the vegetation of the soil.

Devarim 29:22

And that the whole land is brimstone, and salt, and burning, that it is not sown, and does not bear fruit, and no grass grows there....

What image of the area do these sources create?

Ezekiel 16:49–50

Behold, this was the sin of Sodom, your sister-city: pride, fullness of bread, and abundance of idleness was in her and in her daughters, neither did she strengthen the hand of the poor and needy. And they were haughty, and committed abomination before Me; therefore, I took them away as I saw fit.

According to this source, what sins did the people of Sodom commit?

Why do you think that God chose to punish the people of Sodom by destroying them and their city?

Do you think that the nature of the punishment fits the sin? Why or why not?

Why might it be appropriate that the location of the city of Sodom is now the lowest point on the planet?

FOLLOW-UP AND ENRICHMENT

1. Have the students identify the main source of water for the Dead Sea. [The Jordan River]

The Dead Sea is rapidly shrinking because the Kinneret is dammed and much less water flows down the Jordan than it did in the past. The Kinneret holds one third of all of Israel's

fresh water, but damming it has caused the Dead Sea to shrink and has harmed the eco-system. Ask the students why they think Israel chooses to keep the fresh water in the Kinneret rather than allow it to flow to the Dead Sea. Read about the National Water Carrier that brings fresh water from the Kinneret to the Negev: www.jafi.org.il/education/100/TIME/carrier.html.

2. The modern Dead Sea region doubles as a resort destination and a mine for valuable chemicals (notice the large evaporation pools to the south that are easy to see in the satellite photo). Learn more at www.deadsea.co.il/factset.htm.

RELATED WEB SITES/ADDITIONAL SOURCES

Facts about the Dead Sea

www.deadsea.co.il/factset.htm

VOCABULARY FOR YOUR STUDENTS

מֶלַח salt

לִצוֹף to float

מִינְרָל mineral

לְרַפֵּא to heal