

MAYIM L'CHAIM

Water is Life

The Adventures of Tali and Dewey



Surfin
USA

Teacher Guide

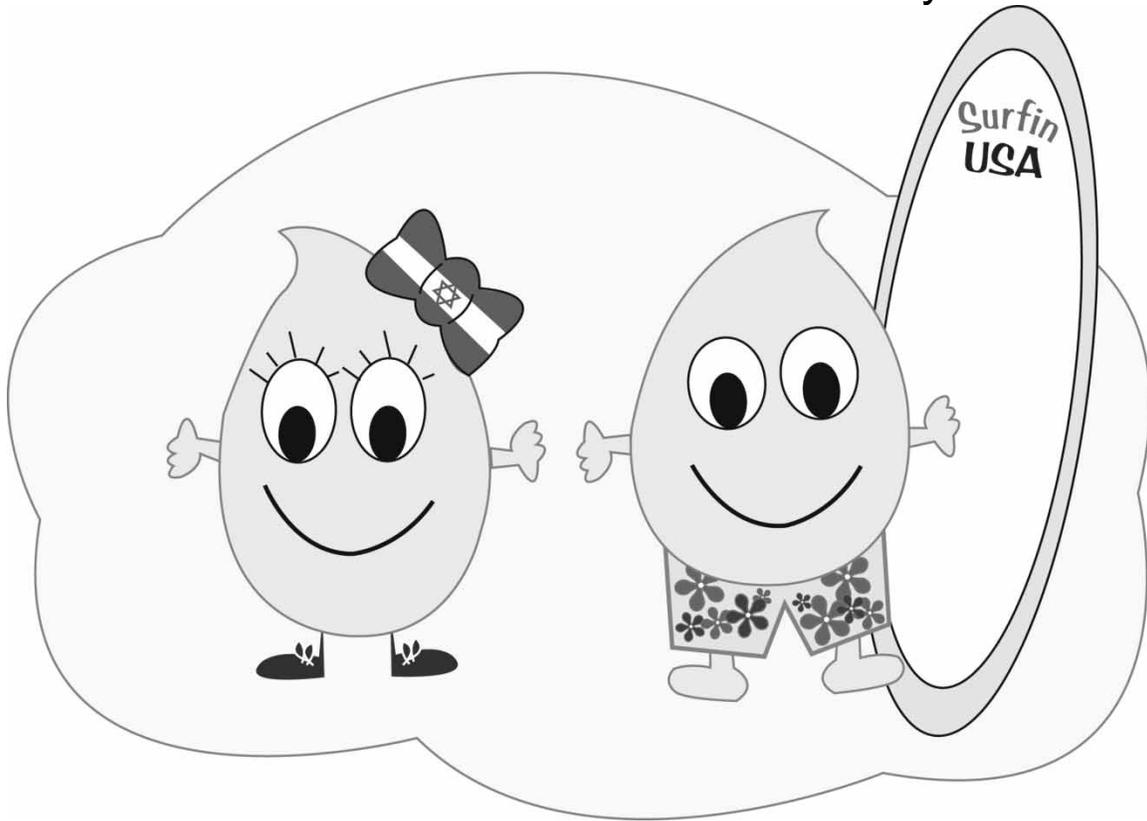
Written by: Sheva Locke, Shannon Stevens,
Meirav Zamzellig, Katherine Goldman,
Yael Baruk, contributor, Rebecca Hailpern
Edited by: Sheva Locke
Illustrated by: Maya Astor
Graphic Designer: Diana German

This project was created in partnership by
Valley Beth Shalom Day School in Encino and the David Bloch School in Tel Aviv
Made possible by a grant from the Jewish National Fund and the U.S. Forestry Service.

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Mayim L'Chayim Water is Life

The Adventures of Tali and Dewey

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Lesson 1 - Mayim L'Chayim-Water is Life

Goals: Students will be able to:

- Explore facts about water.
- Identify how water is important for the earth, nature, human beings and animals to survive.
- Describe why water is important for life.

Materials needed:

- *Tali & Dewey Story -The Adventures of Tali and Dewey; Teacher's Guide p. 3, Student Workbook p.1.*
- *10 water fact questions and 10 water fact answers; Teacher's Guide. p. 4,5.*
- *Water fact question and answer key, Teacher's Guide p.6.*
- *Globe or world map*
- *Mayim Bingo Board; Teacher's Guide p. 7, Student Workbook p. 2.*
- *20 Transparent plastic cups (1 per student)*
- *20 clear 8-10 oz. cups*
- *Water*
- *Bingo Markers*
- *Mayim L'Chayim concluding questions. Student Workbook. p. 3.*

Preparations:

- Print one copy of the water fact questions and water fact answers.
- Cut out each fact.
- Tape one question or answer to the bottom of a clear plastic cup.
- Fill cups with water and place one cup on each student's desk.
- Place a pile of bingo markers on each desk.

I. Introduction

- A. Read Tali & Dewey Story
- B. Show the class a globe or map of the world.

- C. Question: Is there more water or land in the world?
- D. (Water covers more than 3/4 of the earth's surface)
- E. The Hebrew word for water is **mayim**. It sounds very similar to the Hebrew word for life which is **chayim**. Think of three ways that water is important for your life. As a group list on the board many of the ways that water is used in three minutes. The long list shows that there are many uses for water. Now lets find out more about the importance of water in our world.

II. Activities: Water Fact Match and Mayim Bingo Game

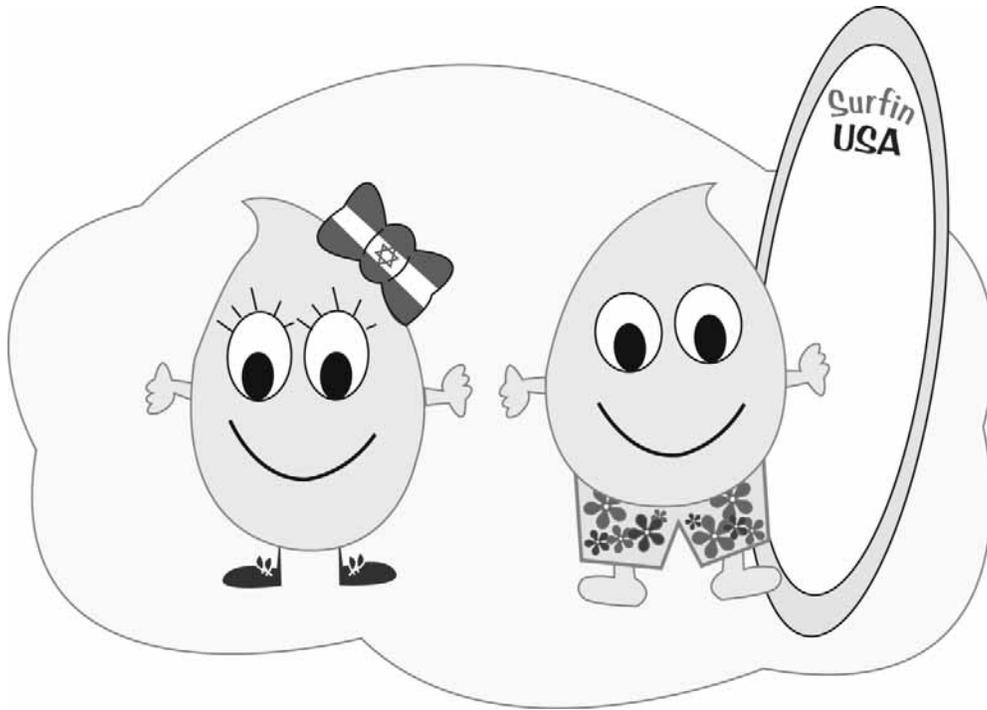
- A. Instruct students to drink the cup of water on their desk and find a water question or answer on the bottom of the cup.
- B. Students walk around the room and match the water fact questions and answers on the bottom of the cup.
- C. Turn to the Mayim Bingo Board in the student workbook p. 2, students walk around the room and ask each other water questions and answers from the cups and fill in the right question and answer on the 10 blank spaces on their Mayim Bingo Board. (The teacher has an answer sheet available for clarification of any questions.) When all the information is gathered, play bingo by calling out the questions and students must find the answer on their bingo board. Students place a bingo marker on each box when they have identified the correct answer. When they get 5 in a row they call out Mayim.

III. Conclusion

Students write three water facts that are important for life in their workbook p 3.

1. Write one water fact that you found to be the most interesting.
2. Write one water fact that surprised you.
3. Write one water fact that is essential for life, Mayim L'Chayim.

The Adventures of Tali and Dewey



Dewey: Hi, my name is Dewey. Dude, what is your name?

Tali: My name is Tali. Can I join you in this cloud? What do you do up here for fun?

Dewey: I like to look down below as the cloud floats by, but everything looks so far away. I am getting tired of sitting all day long in this cloud.

Tali: Dewey, when was the last time you left the cloud?

Dewey: A few days ago I was surfing in the Pacific Ocean off of Malibu Beach in Los Angeles, California. That was really cool. Hey Tali, I am ready to go back and check out some more waves. Do you want to come with me?

Tali: I just came from Israel, from Lake Kinneret. I have traveled so far and I'm not even sure that I want to leave this cloud right now. Besides, are we really needed down there?

Dewey: What do you mean? We have to go! We are drops of water! Where I come from, all the surfing dudes say, "Mayim L'chaim, Water is Life." We are sitting up here on this cloud wasting time while we could be exploring the world down there!

Tali: Well....I have always wanted to go to Niagara Falls, or the Indian Ocean, or the Nile River....it's the longest river in the world you know.

Dewey: Tali, let's go on an adventure and see what they mean when they say "water is life"!

Water Questions

What percentage of the Earth's water is salt water?

What percentage of the Earth is covered with water?

What percentage of an adult's body is water?

What percentage of the Earth's water is fresh water?

What is the most common substance on Earth?

How many gallons of water does the average person use in a day?

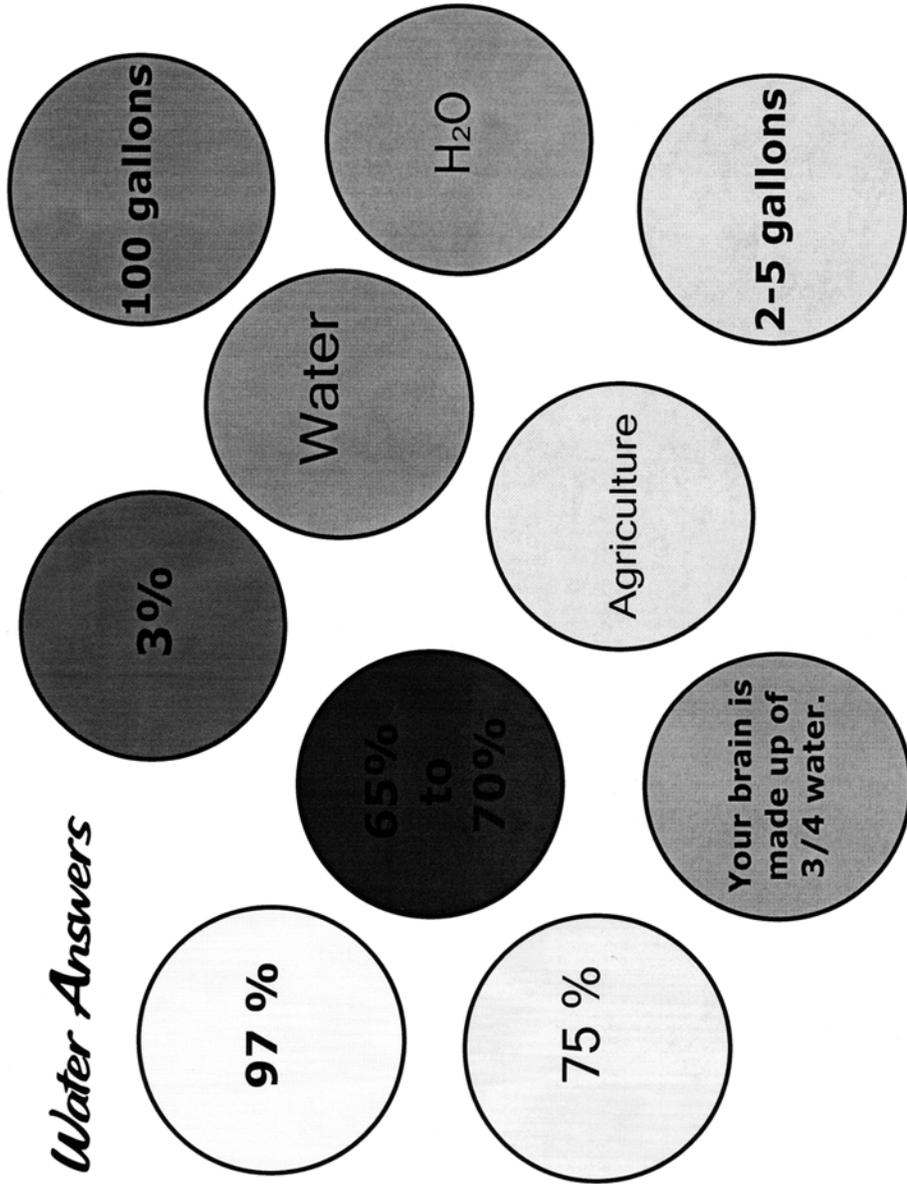
What does "hydro" mean?

What is the largest consumer of water?

How many gallons do you use while brushing your teeth?

What percent of your brain is water?

Water Answers



Water Facts Answer Key

What percent of the Earth's water is salt water? 97%	What is the largest consumer of water? Agriculture
What percent of the Earth's water is fresh water? 3%	What is the most common substance on Earth? Water
What percent of an adult's body is water? 65%-70%	How many gallons do you use while brushing your teeth? 2-5 gallons
What percent of the Earth is covered with water? 75%	What does "hydro" mean? Hydro means water
What percent of your brain is water? 75%	How many gallons of water does the average person use in a day? 100 gallons

MAYIM L'CHAIM

M	A	Y	I	M
				<p>Steam is invisible</p>
<p>Snow is a form of precipitation</p>				
		<p>FREE SPACE</p>		
				
	<p>Dew is a form of condensation</p>			

Lesson 2 - What is Jewish About Water?

Goals: Students will be at to:

- Identify different stories in the Torah and Jewish texts that involve water.
- Describe the role of water in each story.
- Compare and contrast the different roles of water in these stories.
- Explain the different roles that water plays and the importance to the Jewish people.

Materials needed:

- *Tali and Dewey Story- What is Jewish about Water? Teacher's Guide p. Student Workbook p.*
- *Torah Water Stories Teacher's Guide p. Student Workbook p.*
- *Props for group Torah stories skits.*

I. Introduction:

Read Tali and Dewey Story: What is Jewish about Water?

II. Activity: Discovering Water in the Torah

Introduce the Water in the Torah activity by reading the Torah quote about creation on the Torah Water Story Sheet and determine the importance of water in the story. The whole class will do this together as an example for the next step that will be done in small groups.

Discussion Questions:

1. In the creation story in the Torah, what day was water created?
2. Why do you think that water was created on the 2nd day and all the living things were created on the days following?
3. Why is water important in this story?
4. Write the importance of water on your Torah Water Story Sheet

III. Jewish Water Wonders Activity

Divide students into 5 groups. Give each group is given one water story from the Torah Water Story Sheet.

Each group must:

1. Read and discuss the biblical quote. Determine what the role of water is in the story and why it is important.
2. Fill in the Torah Water Story line for their quote explaining the role of water in the story.
3. Plan a skit to show the rest of the class the role of water from their quote.
4. Students fill in the role of water for each quote as each group presents.

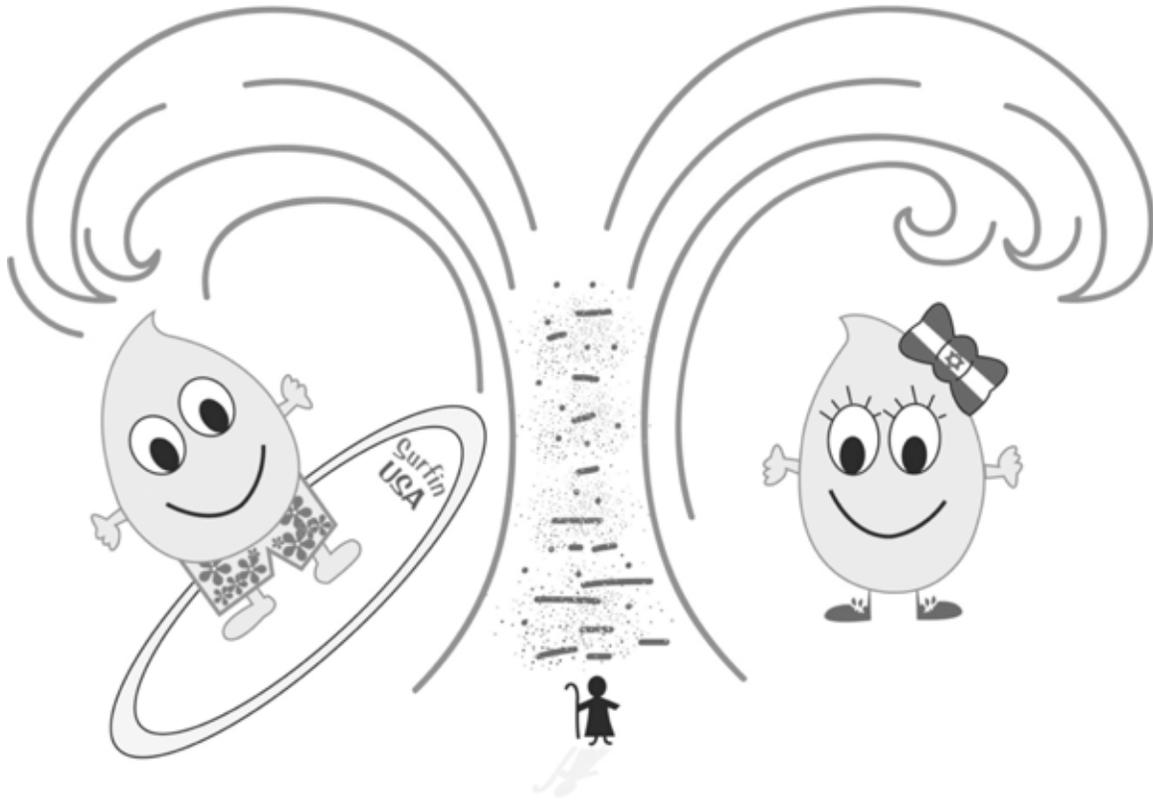
IV. Conclusion

Review the Jewish Water Wonders worksheet and determine the different ways that water is important in Judaism.

Questions?

1. What are the similarities of the role of water in the stories?
2. What are the differences?
3. What do these stories teach us about what's Jewish about water that is important to our lives today?

Tali and Dewey: What's Jewish About Water?



Tali: Wow! Water is really important! I had no idea that so much of the world is made up of water!

Dewey: Water has always been important since the world began. Now that I think about it, there are so many stories about water in the Torah...like when the Red Sea was parted and the Israelite slaves followed Moses to freedom.

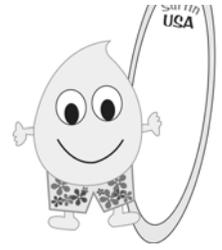
Tali: That's a good story, but I really like Noah's Ark. I could never imagine living on a giant boat with all those animals!

Dewey: Animals, what about the flood? Those were the best surfing waves yet.

Tali: Stories about water in the Torah make me feel so special. I wonder what other stories we can find in the Torah.



Water in the Torah and Jewish Texts



“And God said: Let there be a firmament in the midst of the waters and let it divide the waters from the waters. And God made the firmament and divided the waters that were above the firmament from the waters that were below the firmament: and it was so. And he called the firmament Heaven. And there was evening and there was morning, a second day.”

Genesis 1:6-8

The role of water is _____

And God said to Noah: The end of all flesh has come for the earth is filled with corruption and violence. Make me an ark...Behold, I will bring the flood waters upon the earth, to destroy all flesh...everything that is on the earth shall perish. But with the, I will establish a covenant. And the waters prevailed, and increased greatly upon the earth; and the ark went upon the face of the waters.”

Genesis 6

The role of water is _____

Rebekah..”went down to the fountain and filled her pitcher, and came up... And the servant ran to meet her, and said: Give me to drink; I pray thee, a little water of they pitcher... And when she was done giving him a drink, she said: I will draw for thy camels also, until they are done drinking,”

Genesis 24:18

The role of water is _____

God said to Moses: stretch out your hand over the sea, that the waters may come back upon the Egyptians, and Moses stretched forth his hand over the sea, and the sea returned... and the Egyptians fled against it; and the Lord overthrew the Egyptians in the midst of the sea. And the waters covered the chariots and the horsemen, there remained not a one of them....So Moses brought the Israelites across the Red Sea and they went out to the wilderness of Shur.

Exodus 14:26

The role of water is _____

Miriam, Moses’s sister had a well that supplied water to the Israelites as they wandered through the desert after leaving Egypt. Miriam’s well provided all the water that was needed to sustain the Israelites.

Aggadah

The role of water is _____

Lesson 3 - Where Does Water Come From? A Journey Through the Waterways

Goals: Students will be able to:

- Explore where water comes from and where it goes in our city environment.
- Locate, draw and color the main rivers and aqueduct systems leading to your city and the three main water sources for Israel.
- Compare & contrast your local waterways to Israel's waterways.

Materials needed:

- *Tali and Dewey Story; Teacher's Guide p., Student Workbook p.*
- *Waterways Worksheet; Teacher's Guide p. Student Workbook p.*
(Include a local state map with waterways on the left hand side)
For a map of your state's waterways (lakes and rivers) contact local Department of Water Resources online or call. Often free resources are available.
- *Map of Israel waterways.*
- *Thin tipped felt pens*
Tali and Dewey's Water Journal Diary; Teacher's Guide p. Student Workbook p.

Introduction

Read Tali and Dewey Story-“ Where Does Water Come From”?

Questions:

1. Where does water come from that we use every day?

Braintorm ideas.

Water comes from rain that goes into the gutters on the street and from rainfall that turns to snow in the mountains, melts and flows into rivers that lead to the city. Each city has specific waterways that it depends on it receive its water for everyday use.

2. Can anyone name a major river that brings water to our city?
3. Show a map of your state's waterways (major lakes and rivers).
4. What happens when the water reaches the city?

The water goes to a filtration plant to clean the water and then it goes through pipes to your home and businesses.

Show a map of Israel

Questions:

1. Can you name a body of water in Israel?
Lake Kinneret, the Dead Sea, the Jordan River, the Gulf of Eilat.
2. Do you know how many rivers supply water for the entire country?

Israel receives its water from one river, the Jordan River which is 158 miles long. Water collects in Lake Kinneret. In Hebrew Kinneret means harp, the lake is called Kinneret because the Lake is in the shape of a harp. Israel's water then flows into the Dead Sea. Water travels through pipes to the region of the least rainfall, the Negev in the south and down to the Gulf of Eilat.

I. Activity: Waterways

Students color in the major waterways for your state and Israel on the maps on the Waterways sheet using felt pens and then answer the questions.

II. The Water Journey Diary

Each student writes a diary page for Tali and Dewey. The diary page should include the following and incorporate information from the Waterways worksheet.

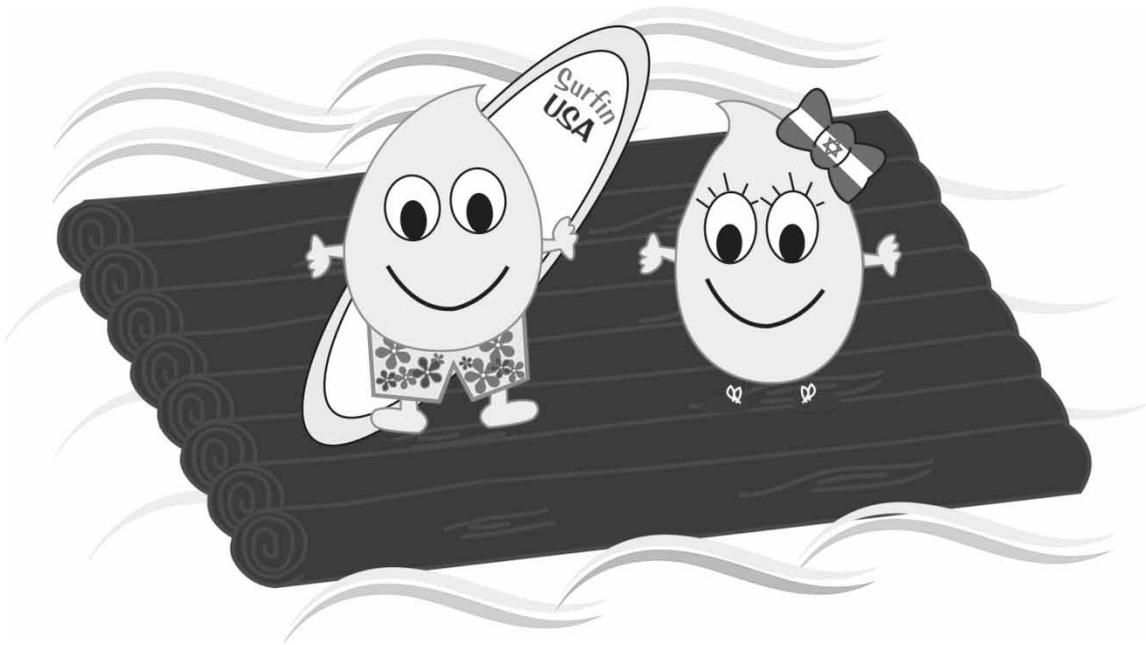
1. Where is the raindrop beginning?
2. Where does it land?
3. How does it travel?
4. What does it see along the way?
5. Where does it finally stop?
6. What advice would it give to other raindrops.

III. Conclusion:

Students read their journal pages aloud.

1. Discuss what was the most exciting part about being a raindrop?
2. What was the most challenging?
3. How can we show our appreciation for the long journey that a raindrop makes to provide us water for life?

Tali and Dewey: Where Does Water Come From?



Tali: Dewey, where should we begin our adventure?

Dewey: It's a big world out there. Where should we start? You said that you were from Israel. Do they have any good surfing waves out there?

Tali: Well there are great beaches off of Tel Aviv on the Mediterranean Sea for swimming and sailing. I think you would really like the Jordan River where we can go river rafting. Besides being a lot of fun, the Jordan River is really important because it supplies all the fresh water for the whole country.

Dewey: That's just like the Colorado River that brings some of the fresh water to Los Angeles. Let's go see both rivers and see where the water comes from. Will you take me to Israel?

Tali: Only if you will take me to Los Angeles. I have always wanted to go to Hollywood!

Dewey: Great, let's go.

Where Does The Water Come From?

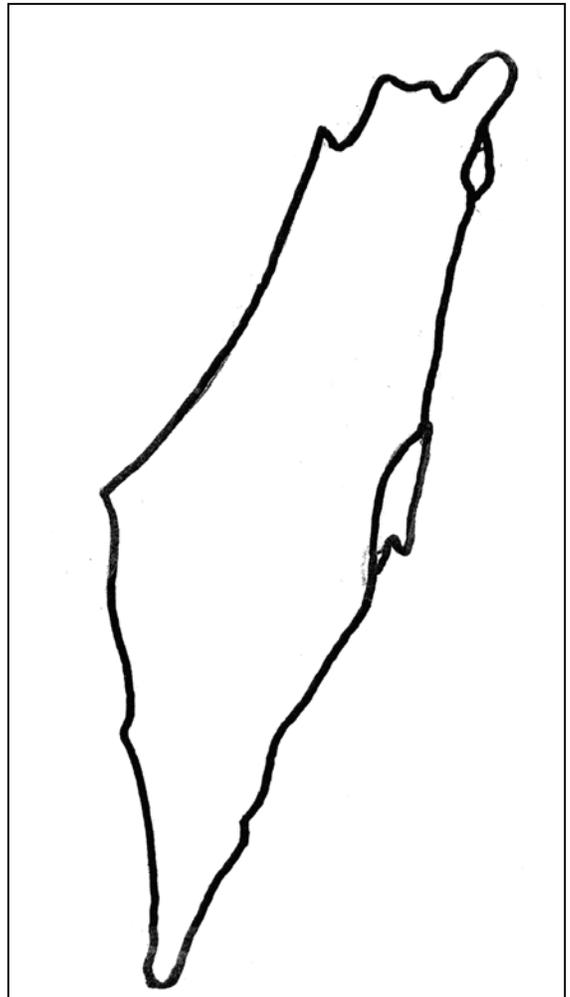
My State Waterways

1. If you live in the United States, put a star on the map for the place that you live.
2. Color the major waterways in your state that lead to your city.
3. Which waterway is the most important for your family to ensure that there will be enough water for your use? _____

Israel Waterways

1. If you live in Israel, put a star on the map for the place that you live.
2. Color the Jordan River, Lake Kinneret, and the Dead Sea.
3. How long is the Jordan River in Israel? _____
4. Why is the Sea of Galilee called Lake Kinneret?

Draw your state and major waterways



Lesson 4 - The Water Detective

Goals: The students will be able to:

- Determine the location of water sources on the school grounds.
- Map where water comes from, where it goes, and any pollution near the water sources.
- Report the importance of water sources on campus and any pollutants that have been discovered.

Materials needed:

- *School grounds water detective sheet; Teacher's Guide p. Student Workbook p.*
- *Map of the school*
- *Green, blue, purple, black, and red markers or colored pencils.*

Vocabulary:

- Catch Basin- The opening in a curb or gutter that catches water and directs it to storm drains.
- Downspout- A vertical pipe used to drain water from roof.
- Rain Gutter- A channel along the roof that collects and carries rainwater.
- Storm drain- Above ground or below ground pipes designed to drain excess storm water to the ocean.

I. Introduction: Finding Water Sources at School

Show pictures of a catch basin, downspout, rain gutter and storm drain.

Write the four words on the board. Students match the words with the pictures and talk about their role with water.

Explain water flows from the rainfall to the ground and is collected in one of these ways to be transported to the filtration plant before it is ready to be used for drinking water. Today you are water detectives and will be finding out how water is collected on our school grounds.

II. Activity: The Water Detective Investigation

- A. Divide students into teams of 5. As Water Detectives, their job is to investigate the water sources on the school grounds. Each group has a map and directions and walks around the school groups to find as many examples as possible within the 15-20 minute period. Students should observe and map

where water comes from, where it goes, and any pollution left on the ground. The students will be able to make water related observations and indicate their findings on the map and instruction sheet. Pass out markers/colored pencils, maps of the school grounds, and a School Grounds Water Detective sheet. Each group is assigned a different area to investigate.

- B. Divide the students into working groups.
 - 1. Reader: reads the instructions and questions to be answered
 - 2. Recorder: records the answers to the questions.
 - 3. Artist: draws what they observe on their map.
 - 4. Timekeeper: makes sure the group stays focused and on time.
 - 5. Reporter: reports the findings of the group to the class.
- C. Assist student groups read their map and familiarize themselves with their designated area.
 - 1. Review the School Ground Water Detective Sheet and point out what the students groups will be looking for and how to use symbols on their map.
 - 2. As a class, walk to one area of the school to point out examples of what they will be looking for and how they should mark these items on their map, including down spouts, sprinklers, rain gutters, and anything else that may not be familiar.
- D. When students return to the classroom, tape each map section together to make one complete map of the school. Affix to the wall or whiteboard.
- E. Have each group's reporter share their group's finding by using the answers on their worksheet and the map of their area.

Concluding Questions:

- 1. What are the different sources of water on our school grounds?
- 2. Where do you think water travels on our campus?
- 3. What did you learn as a result of your observations?
- 4. What questions do you have about what you observed?

Follow Up Project:

Water Testing Project

Contact the U.S. Forestry Department for water testing kits. Repeat the Water Detective activity and test water in different areas of the school.

Water Detective Investigation

In your designated area, observe what is around you. Find as many examples of the water information listed below in 15 minutes. Use the colored markers/pencils to mark your observations on your school grounds map.

Choose a reader, reporter, recorder, time keeper and an artist.

1. Look for places where water can go into the ground.
Draw a **green** dot to show these places on your map.

grass bare dirt gardens tree wells

2. Look for sources of water.
Draw a **blue** water drop to show these places on your map.

faucets drinking fountains sprinklers hoses

3. Look for places where water travels.
Draw a **purple** square to show these places on your map.

gutters down spout drain catch basin

4. Look for trash and other things that could be harmful to water.
Use a **red x** to show these items on your map.

lunch trash candy wrappers motor oil

lawn/field care products

5. Look for areas where water is wasted.
Use a **black star** to show these areas on your map.

leaky faucets & sprinklers clogged drains

water sprayed on concrete

Lesson 5 - The Water Cycle: Around We Go

Goals: Students will be able to:

- Explore the different stages of the water cycle; Evaporation, Condensation, Precipitation and Accumulation.
- Observe how water can change various states.
- Construct a visual aid which depicts the water cycle.

Materials needed:

- *Tali and Dewey Story; Teacher's Guide p., Student Guide p.*
- *Hot plate*
- *Tea Kettle*
- *Water*
- *2 Clear cups or pie plates*
- *20 pieces of construction paper (or 1 per student)*
- *Copies of the water cycle wheel (top and bottom) 1 per student*
- *Teacher's Guide p.*
1/2" fasteners 1 per student
- *Glue sticks*
- *Scissors*
- *Markers or Colored Pencils*
- *Picture/poster of the Water cycle (optional)*

Vocabulary

- Evaporation
- Condensation
- Precipitation
- Accumulation

Preparations:

- Copy one water cycle wheel 1 per student
- Cut out the 4 "windows" on the top of the wheel
- Poke holes in the center of the top and bottom copies of the wheel for easier assembly.

I. Introduction

Read Tali and Dewey Story: The Water Cycle: Around We Go

Questions: What does water look like when it falls in a freezing area? What does it look like when it falls in a hot climate? Can you think of other examples of how water can change its state? Rain, snow, sleet, steam, hail etc. We are going to learn about the water cycle, and how water takes on different forms in the water cycle.

II. The Water Cycle

1. Show a picture of the water cycle. Demonstrate how water changes as it moves the cycle with the following experiments.

a. Evaporation

Demonstrate how water can change state from a liquid, to a gas, back to a liquid again by filling a tea kettle half full of water. Put the kettle on the hot plate and turn it on. When the water starts to boil, steam will come out of the spout. The water vapor is an example of evaporation)

b. Condensation

Hold a clear cup above the spout of the kettle so that the steam gathers inside of it. When the steam fills the cup, it will condense on the sides of the cup.

c. Precipitation

Let the “rain” drip out of one cup into another cup or pie plate.

d. Accumulation

As the water collects in the cup or pie tin it accumulates.

III. Activity: Water Cycle Wheel

Students make their own water wheel by gluing the bottom of their water wheel to a piece of construction paper and cutting it out. Students may color the top of the wheel and then cut out. Place the top on the bottom and have students fasten them together.

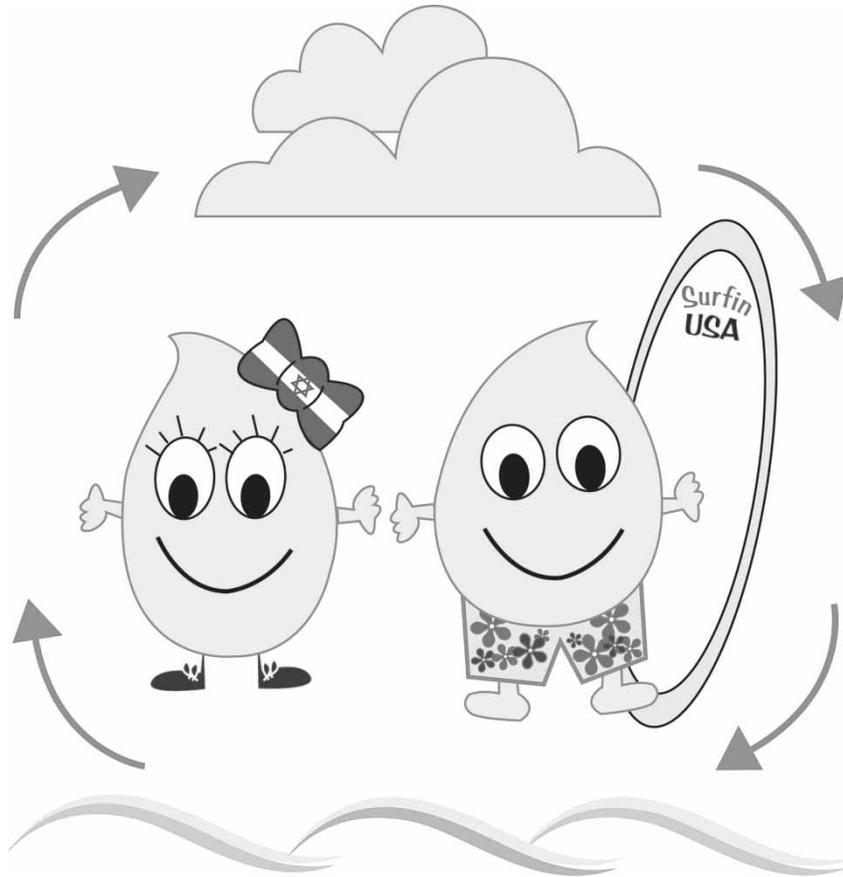
IV. Discussion Questions:

1. When water condenses and collects in clouds, we call it? (condensation)
2. What do we call water that is released from clouds in the form of rain, snow, sleet or hail? (precipitation)
3. What do we call water that changes from a liquid to a gas or vapor? (evaporation)

V. Conclusion:

Students divide into groups of four. Come up with a skit, rap or song demonstrating and including the four parts of the water cycle. Share with the class.

Tali and Dewey: Around We Go...The Water Cycle



Dewey: Israel was amazing. I loved going down the Jordan River and seeing the country. There were so many different places to see-from mountains to farms, cities and even the desert. Israel is so beautiful. I can see why water is so important there.

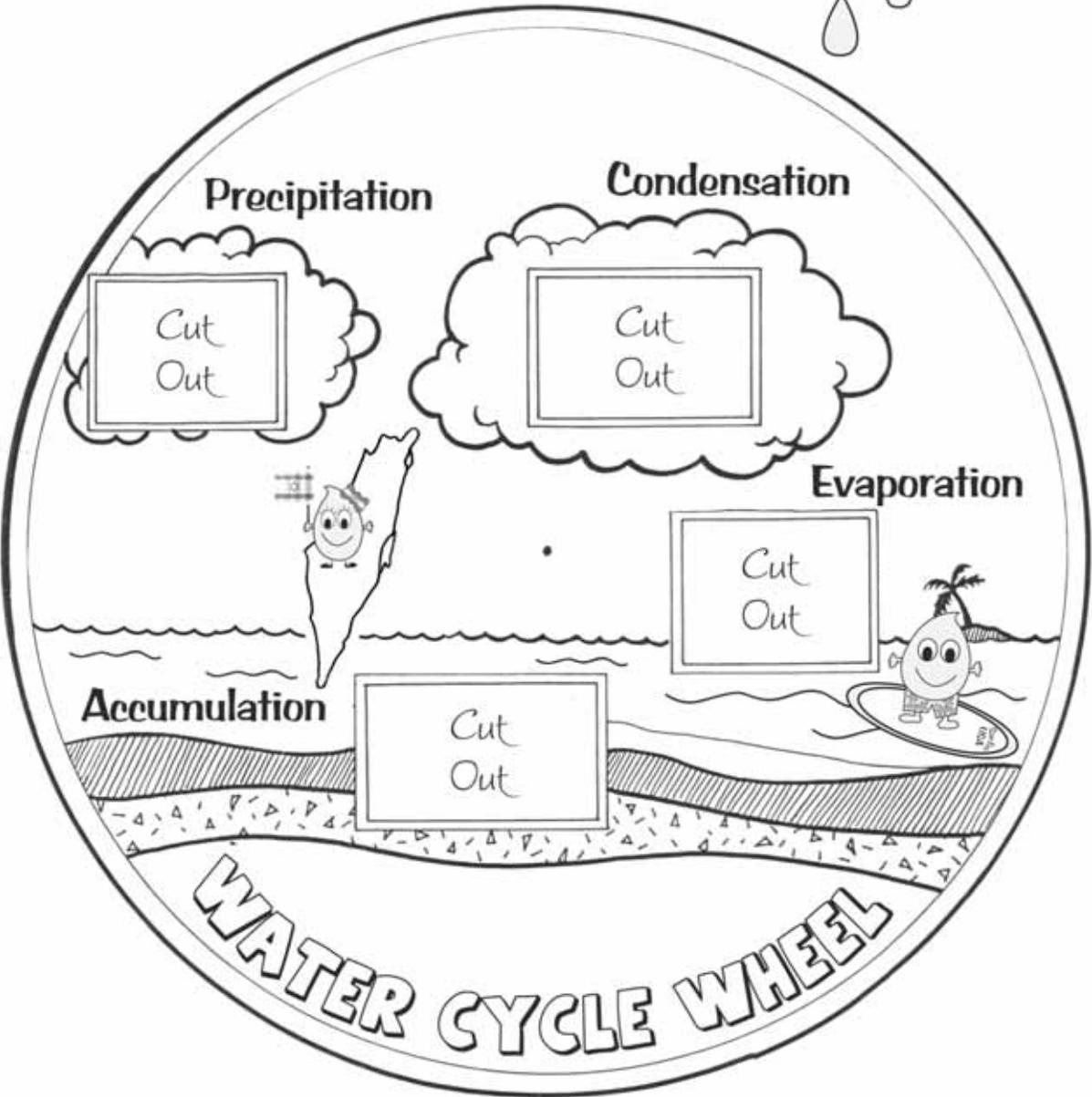
Tali: Did you know that over the last 60 years millions of trees, most of the farms and even the nature blooming in the desert were planted by Israelis to make Israel green again? Can you imagine how much water is needed to plant it all and keep everything growing?

Dewey: I never thought about that. Mayim l'chayim...water is life in Israel.

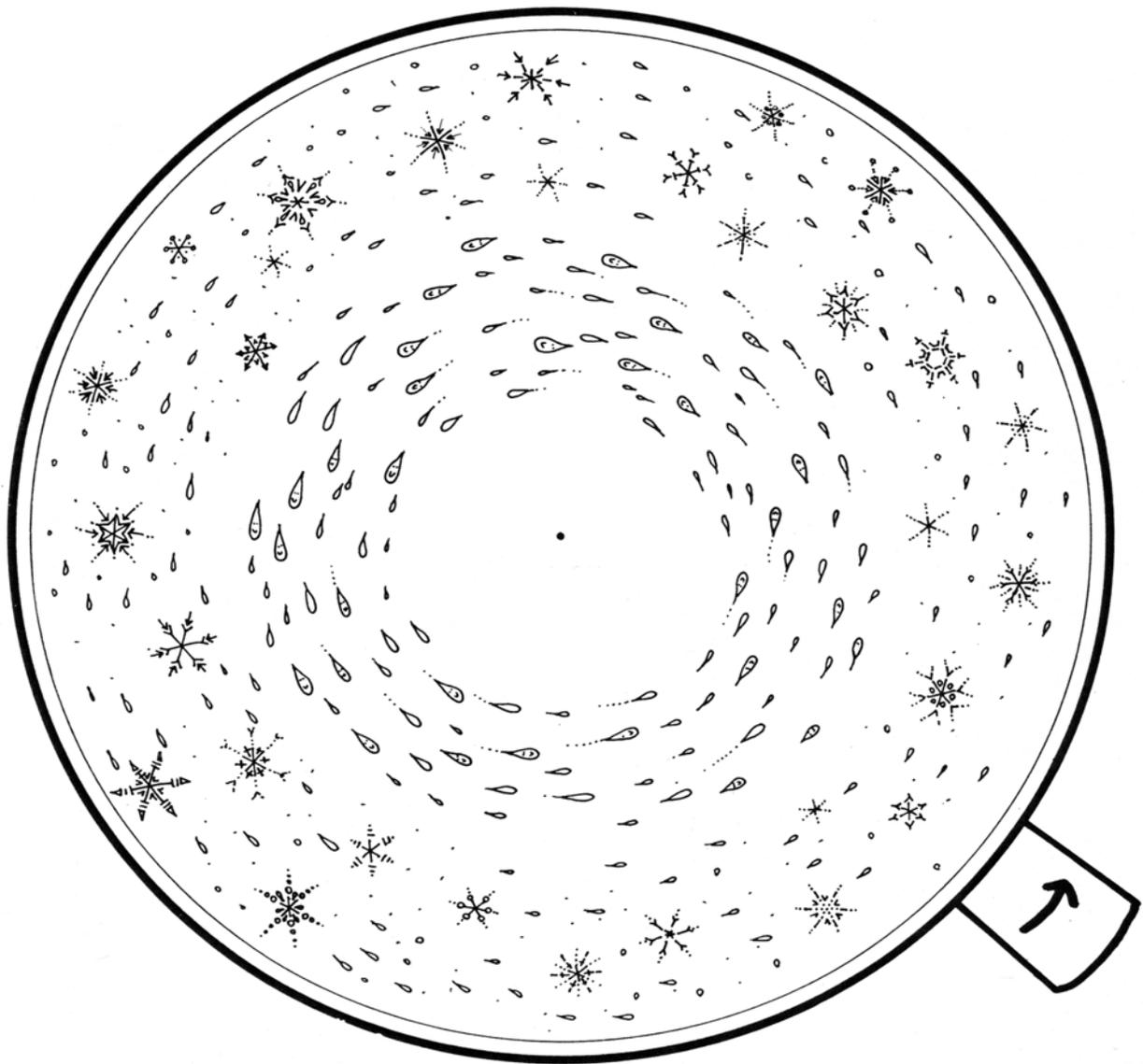
Tali: Well, I really enjoyed visiting Los Angeles. I never expected the Colorado River to be so long and have so much water. I guess they need a lot of water in Los Angeles because there are so many people, gardens and fun things to do with water. They even have water parks with big waterslides.

Dewey: Being on the rivers and waterways was fun! Now where should we go next? We will need to catch a cloud to get to our next adventure. I like going up and down from the earth to the clouds over and over again. It's good exercise. Hold on, here we gooooooooooooo.

Moving Raindrops



Moving Raindrops



Lesson 6 - Weather Report

Goals: Students will be able to:

- Describe what aspects of nature are predictable and which are not predictable.
- Explain how weather and rainfall can affect different professions and their livelihood
- Track and report the temperature and precipitation locally and in Israel.

Materials

- *Pictures of different aspects of weather.*
- *Index Cards. Write a profession on a card, one card per pair in the class.*
Suggested professions that interact with the outdoors: Farmer, Boat Captain, Pilot, Pet Shop Owner, Police Officer, Olympic Skier, Kite Flyer, Gardener, Home Painter etc.
- *(Optional: Provide one prop for each profession)*
- *Weather tracking form: Teacher's Guide p. Student Workbook p.*

I. Introduction:

1. Write the word weather on the board.

Questions: How many of you looked outside this morning before you got dressed? What were you looking for? Show pictures of different aspects of weather rain, sun, tornado, flood etc..

How would different weather outside change what you are wearing today?

II. Activity: Weather: How Does It Affect Your Job?

1. Divide students into pairs, give each pair a card with a profession on it. (profession props can be provided)
2. Based on the profession given to the pairs, each pair should be able to answer the following questions.

What in nature is predictable?

What in nature is unpredictable?

Why is it necessary to predict the weather?

How will rain or lack of rain affect your job?

III. Activity: Weather Report

One representative from each pair sits on the weather report panel.

Choose a weather announcer. The announcer gives different weather conditions. Each person on the panel needs to respond to the weather condition based on their job. Each response should be in character.

IV. Activity: Weather Tracking and Reporting

1. Demonstrate to students how to identify the daily temperature and precipitation at school and in Israel (choose a city in Israel). Explain the difference between Temperature reading in Israel C-Celsius and the United States F-Fahrenheit. (Use resources such as a thermometer and previewed internet weather sites).
2. Fill in the Weather Tracking chart with today's information.

V. Conclusion:

Assign students to track and report the information each day for a month. Compare and contrast the local weather with weather in Israel.

Note: Fill in the observations about the weather patterns on the weather tracker during the month indicating the implications of heavy rainfall or lack of rainfall. The weather tracking can be done as a joint project between an American school and an Israeli school. Findings can be shared.

Lesson 7 - A Prayer for Rain

Goals: Students will be able to:

- Identify the prayer for rain and the prayer for dew in the siddur
- Explain the purpose for the prayer and its relationship to the Land of Israel
- Write a personal prayer for rain

Materials Needed:

- *A Prayer For Rain Sheet; Teacher's Guide p. Student Workbook p.*
- *parsley seeds*
- *soil*
- *cups*
- *plastic spoons*
- *(pitcher of water)*
- *Thick white construction paper*
- *pencil*
- *Thin tipped colored felt pens*

I. Introduction:

Instruct students to plant parsley seeds in their cup. (Do not provide the water yet). Imagine that you are a farmer in Biblical times in Israel. It is the last day of Sukkot, the harvest festival and you are planting the crops that will bloom in the spring at Passover. These seeds are now planted in the ground.

Questions: What will you need for a successful harvest in the spring?
(Students should recognize that they do not have water to plant their seeds.
As farmers, water is essential)

II. A Prayer for Rain

In the siddur, we find in the Amida that a prayer for rain is inserted on the last day of Sukkot, Shmini atzeret and is said until Passover. The prayer reads, *mashiv haruah umorid hageshem*. The prayer praises God for making the wind blow and the rain fall.

Turn to these words from the payer and read aloud, Student Workbook p.

Questions:

- Why did the Israelites need a prayer for rain?
- Why do you think that this prayer is inserted from the time period from the end of Sukkot to the beginning of Passover?
- Why do Jews around the world still say this prayer if they are not farmers in Israel?
- Who can recall a story in the Torah where the Israelites had to leave Israel and go to Egypt because of a draught?
- Do you think there can be a draught where you live?
- How is rain important for replenishing water sources that are important for our lives and for Israel today? List the answers on the board.

III. My Prayer for Rain

1. Write your own prayer for rain including at least five reasons why rain is important for you and for Israel today. Will your prayer be thanking God or requesting help from God? Write your prayer, Student Workbook p.
2. Make a micrography illustration by writing your prayer in the shape of a raindrop, river, the ocean or water vessel on white paper using fine point felt pens.

IV. Conclusion

1. Students pour water from the water pitcher into their cup of soil and seeds. Place their cups near the window to grow.
2. Students recite their personal prayer for rain. Display the artwork.

Lesson 8 - My Home Water Wonders

Goals: Students will to:

- Identify ways that water is used in at home.
- Track the average amount of water used personally at home through data collection.

Materials needed:

- *Tali and Dewey Story; Teacher's Guide p. Student Workbook p.*
- *My Home Daily water Use Survey #1 Teacher's Guide p. Student Workbook p.*
- *Index cards and pipe cleaners to make "Toilet Tallies" (1 per student)*

I. Introduction:

Tali and Dewey Story: "Don't Waste Water"

Questions:

1. Water is an important part of our daily life. How many ways did you use water in your home this morning before coming to school?
2. How does your family use water at home both indoors and outdoors?

Areas to include:

kitchen

- sink (dishes, cooking, drinking)
- dishwasher

bathroom

- toilet
- faucet (brushing teeth, washing hands)
- bathtub
- shower

utilities

- washing machine

outside water use

- washing car
- playing with water
- filling pool

- watering plants
- watering lawn
- washing the dog

II. Activity: How much water do we really use?

Look at the, My Home Daily water Use Survey #1

Estimate how much water you use at home in one day. There are so many ways that we use water in our homes, we are going to see how much we really use. There are two ways that we can track the water usage.

1) My Home Water Usage Survey

Explain the directions of how to fill in the survey. Students choose one weekday and one weekend day to fill in the water survey #1. You will be comparing week day use of water to weekend use of water.

2) Toilet Tally

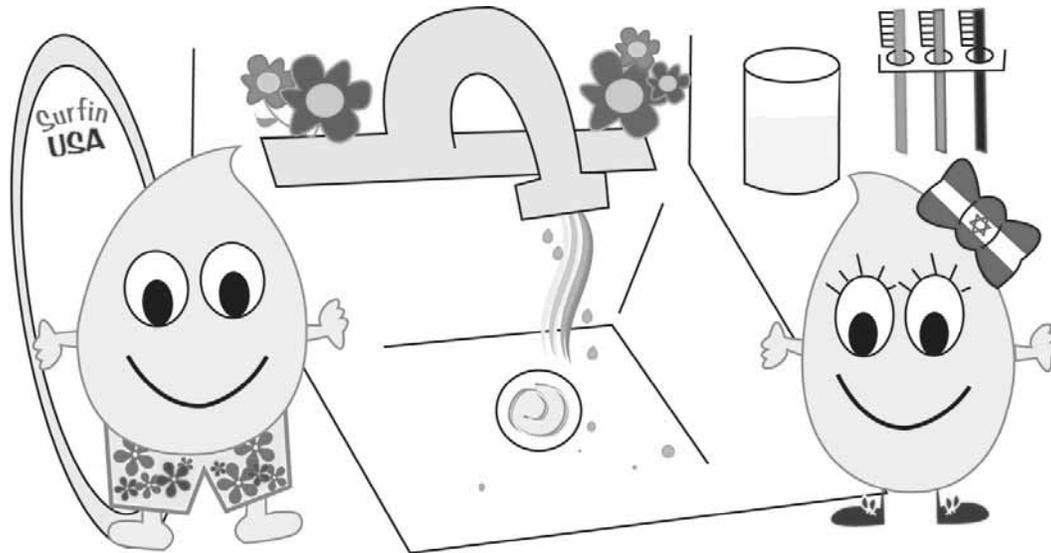
Students make a Toilet Tally for their home to assist in determining the water usage when flushing a toilet. To make a Toilet Tally, punch two holes in an index card and use a pipe cleaner as a handle. Students can place the toilet tally on a toilet at home and mark the tally each time the toilet is flushed.

III. Conclusion:

Do you think your estimation of how much water you use in a day will be correct?

Let's See.....

Tali and Dewey: Don't Waste Water



Tali: Dewey, you said that water is for life, Mayim L'chayim. Did you see all the water that was coming out of this metal pipe? It must be important if it is in a house.

Dewey: Yes, that is called a sink. People use this water to drink, wash their hands and faces, brush their teeth, and wash all sorts of things.

Tali: Does the water keep coming out all the time like a river?

Dewey: No, there is a handle where you can turn it on and off.

Tali: Then why is this sink running like a river?

Dewey: I guess someone forgot to turn it off. What a waste of water! All our friends, down the drain for nothing.

Tali: People must think that water is endless. Did you know that there are some people in the world that don't have enough fresh water to drink? People should be more careful!

Dewey: I agree. Maybe if people knew how much water they were really using they would conserve.

Tali: What is conserve?

Dewey: Conservation is saving water for when you really need it and only using what you need. This way, the fresh water won't run out and there will be Mayim L'chayim.

Home Water Usage Survey #1

Water Use Task	Gallons	Weekday Choose 1 day	# Gallons Used	Weekend Choose 1 day	# Gallons Used	Observations
		# of times		# of times		
Flush toilet	6					
Run faucet for 1 minute (waiting for water to get hot or cold)	4					
Fill a bathtub	40					
Shower	35					
Run dishwasher	15					
Wash a load of dishes by hand in a basin or plugged sink without water running	4					
Wash a load of dishes by hand with water running	30					
Wash a car (water off while soaping)	40					
Wash a car (water on while soaping)	180					
Wash 1 large load of clothing	45					
Wash 1 small load of clothing	30					
Brush teeth with water running	2					
Brush teeth with water off	1					
Wash hands	1					
Drink water	.25					
Water lawn (20 minutes)	150					
Water plants						
Clean driveway or sidewalk with hose						

Lesson 9 - My Home: How Much Water is Enough?

Goals: Students will be able to:

- Track water usage at home on week days and a weekend.
- Determine when water is used most at home.
- Generate ideas for conserving water to reduce the amount of water used.

Materials needed:

- *Completed My Home Water Use Survey #1 Teacher's Guide p. Student Workbook p.*
- *My Home Water Use Survey #2 Teacher's Guide p. Student Workbook p.*
- *Conserving Water...I Can Do It Sheet; Teacher's Guide p. Student Workbook p.*
- *Calculators*
- *Tali and Dewey Water Awareness Cards*
- *Felt pens*

I. Introduction:

Students should review their completed surveys. Discuss questions:

- A. When was water used the most, on weekdays or weekends?
- B. What place in your home used the most water?
- C. By comparing your original estimate of the amount of water that you use in a day with your water survey, how was it similar or different? Were there any surprises?
- D. Dewey and Tali told us in their story that saving water means to conserve. By doing the daily survey did you become more aware of water when you were using it?

II. Learning Ways to Conserve Water

Brainstorm as a class ways to conserve water at home. Ask students to brainstorm ideas first, writing their ideas on the Conserving Water...I did it sheet. They can add ideas to their list as students share their ideas and the ideas are written on the board.

Conserving Water Suggestions:

Bathroom

toilet

- Don't flush the toilet extra times.

- Install a low-volume toilet
- Check your toilet for leaks by putting a few drops of food coloring in the toilet tank. If the colors appear in the bowl without flushing, you have a leak. A small leak can waste more than 100 gallons of water a month.
- Put a plastic container or displacement bag in your toilet tank.

Faucet

- Turn off water while washing hands or brushing teeth.
 - Fill a glass with water and drink it all.
 - Use water at whatever temperature it comes out.
- bathtub (only use 5 inches of water or less)
 - shower (Take a 5 minute shower. Turn off water while soaping up. Install a low-flow showerhead.)

kitchen

- sink (Turn off water while washing. Fill sink or basin with soapy water. Chill water in fridge instead of letting the faucet run until the water is cool)
- dishwasher (run only a full load)

utilities

- washing machine (Run only a full load. Adjust the water level for smaller loads.)

outside

- washing car (Use a sponge, bucket and hose with a nozzle.)
- playing with water (fill tub or bucket with water to play with)
- use a broom instead of a hose to clean sidewalks and driveways
- watering plants (Water early in the morning or late in the day to avoid evaporation.)
- plant vegetation that doesn't need a lot of water)
- watering lawn (Water early in the morning or late in the day to avoid evaporation.)
- make sure the sprinkler waters the lawn, not paved areas)
- washing the dog (use a tub and a squirt bottle filled with soapy water)

III. Conclusion: Taking Action To Conserve Water

- A. Complete the Conserving Water....I Did it Sheet by listing five ways that the student can make a difference in conserving water at home.
- B. List the 5-8 ways on Tali and Dewey Water Awareness Cards to place in your home with conservation reminders and suggestions for family members.

Home Water Usage Survey #2

Water Use Task	Gallons	Weekday Choose 1 day # of times	# Gallons Used	Weekend Choose 1 day # of times	# Gallons Used	Observations
Flush toilet	6					
Run faucet for 1 minute (waiting for water to get hot or cold)	4					
Fill a bathtub	40					
Shower	35					
Run dishwasher	15					
Wash a load of dishes by hand in a basin or plugged sink without water running	4					
Wash a load of dishes by hand with water running	30					
Wash a car (water off while soaping)	40					
Wash a car (water on while soaping)	180					
Wash 1 large load of clothing	45					
Wash 1 small load of clothing	30					
Brush teeth with water running	2					
Brush teeth with water off	1					
Wash hands	1					
Drink water	.25					
Water lawn (20 minutes)	150					
Water plants						
Clean driveway or sidewalk with hose						



Conserving Water....I Can Do It!



Brainstorm a list of ways that you can conserve water at home.

Choose five ways that you can conserve beginning today.

1. _____

2. _____

3. _____

4. _____

5. _____

Make five or more Tali and Dewey conservation action cards writing one of these five ideas on each card. Place the cards around your home to remind your family and yourself to conserve water.



**Water Awareness
Card**



**Water Awareness
Card**



**Water Awareness
Card**



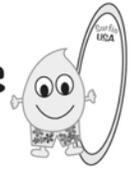
**Water Awareness
Card**



**Water Awareness
Card**



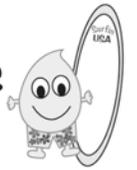
**Water Awareness
Card**



**Water Awareness
Card**



**Water Awareness
Card**



Goals: Students will be able to:

- Explore values in the Torah about caring for nature.
- Plant a partnership garden.
- Identify plants that grow locally and plants that grow in Israel
- Develop basic gardening skills
- Explain the relationship between water and plants growing
- Demonstrate personal responsibility for caring for nature and water.

Materials Needed:

- *Tali and Dewey Story; Teacher's Guide, Student Workbook p.*
- *Garden planting area*
- *Garden tools*
- *Dirt*
- *Herbs seeds or small plants*
- *Watering can*

I. Introduction

Questions:

1. Have you ever cared for a pet? Raise hands. If you have not had a pet think about a pet of a relative or friend.
2. Why do people need to care for pets? Why don't they live in the wild and take care of themselves?
3. What is needed to care for a pet?
4. What type of a relationship is created with the pet when you care for it?

II. Discussion: Being A Partner

QUOTE: *"God took and placed human beings in the garden of Eden to till and tend it."* Genesis 2:15

1. Read the quote out loud. What is tilling and tending?
2. In this Torah story, why were people put in the garden to till and tend to it?
3. How is this similar or different from caring for a pet?
4. Why is it important to care for the earth?

Discuss the partnership between God, human beings and the earth. What is the role of each in this partnership?

III. Activity: Planting a Partnership Garden

Read Tali and Dewey Story, "Planting Our Partnership Garden"

1. Tali is from Israel and Dewey is from Los Angeles. They want to plant a partnership garden. What would make their garden a partnership garden?
2. Why Plant a partnership garden?
 - To create beauty at the school
 - To create a connection with Israel and our home by planting plants from both places.
 - To make the site smell good
 - To have fun together
 - To allow other people to enjoy the garden site
 - To learn together about the environment
3. Select a site for the Partnership Garden

Choose plants that will grow in the local climate. Choose plants that grow in Israel in a similar climate.

Discuss which plants are found in Israel and which are local. Are there any plants from both areas?

Demonstrate proper planting techniques.

Assign each student a place in the garden to plant, a shovel and a plant.

Students can plant the parsley that they planted in cups in the classroom in the garden.

IV. Activity: The Importance of Water

Fill a watering can. Discuss how much water is needed to water the plants.

Discuss different methods of watering, watering can, hose, sprinkler, drip system.

Choose the method that is most water efficient for the type of garden being planted.

Demonstrate how to water the plants. (The proper watering technique is to water the soil surrounding the plant and not the plant itself.)

Create a watering schedule and assign students to water the garden on a rotational basis. Assign watering duty in pairs since it is a partnership garden. If you choose to use a drip system, have students check on the plants on a rotational basis to see that they have enough water.

V. Appreciating Nature

Visit the garden and use all the senses to explore the beauty of the garden.

Smell the plants and herbs, lightly and delicately touch their plants, listen to the sounds around the garden.

VI. Conclusion

Students complete the sentences:

I am a partner with the garden

because _____

Plants need water

because _____

WATERING TIPS for Caring for the GARDEN

- **Touch** the soil. If it is dry, water well. If it is damp, no need to water.
- **Look** at the plants. If they seem perky and upright, they are in good shape. If they are drooped over, they might need water or are over-watered.

WHEN WATERING:

1. Remember to water the soil around the plants, not on top of the plants themselves.
2. Only water once a day or every other day. See the above to know if the plant needs water.

PLANT SUGGESTIONS

Basil
Bay Leaves
Chamomile
Lavender
Mint
Mustard
Parsley
Rosemary
Sage
Thyme
Calendula
Chives
Common Snap Dragon
Lavender
Lemon Grass
Primrose
Cyclamen
Pansy

ISRAELI PLANT SUGGESTIONS

ISRAEL Seven Sacred Species:

Olive Tree
Pomegranate Bush/Tree
Grape Vines
Dates
Figs
Wheat
Barley

Other Native Plants of Israel

Mint (nana)
Sage (marvah)
Rosemary
Cyclamen
Etrog Tree

Tali and Dewey: Planting Our Friendship Garden



Dewey: I feel better now that the sink is turned off and the water isn't being wasted in that house anymore. It is such a simple thing but I guess people need to learn not to waste water.

Tali: I agree. Water is also used outside of the house to make things grow. Plants, flowers, trees and all of nature needs water to live and grow.

Dewey: I wonder how much water it takes to help the plants in a garden grow from seeds or small plants?

Tali: I have an idea. What if we plant our own garden and add just enough water so the plants can grow? It will be beautiful. We can call it our Friendship Garden.

Dewey: Great idea, Tali. We can create a Friendship Garden with plants that grow in both Israel and Los Angeles.

Lesson 12 - Water is Life

Goals: Students will be able to:

Materials Needed:

Tali and Dewey Story; Teacher's Guide p. 43, Student Workbook p. 21.

Mayim L'Chayim Sheet Teacher's Guide p. 44, Student Workbook p. 22

I. Introduction

Read Tali and Dewey Story: Mayim L'Chayim

Ask students to look through their workbook and find three of the most interesting facts the most interesting aspects that they learned about water.

II. Activity: Mayim L'Chayim, What have we learned?

Place students in two concentric circles with students facing each other. Students discuss the following questions:

1. What was the most interesting fact that you learned about water. (outer circle rotates to the right for next question).
2. What can kids do to make a difference in water conservation? (rotate to right for next question),
3. Why is water important for life?(rotate to the right)
4. What do you think was Tali and Dewey's most interesting part of their journey?

III. Students turn to the Mayim L'Chaim sheet in the student workbook p.22.

Complete the acrostic with the letter Mayim L'Chaim. Mayim, list the ways that you can conserve water. L'Chaim'Give examples how water is life.

Water is Life

Tell Tali and Dewey what you learned about the importance of water. List water facts starting with the letters in the word MAYIM. List ways that you can conserve water starting with the letters in the word L'CHAYIM. Show how you can help ensure that water is for life!

M _____

A _____

Y _____

I _____

M _____



L _____

C _____

H _____

A _____

Y _____

I _____

M _____





My Partnership Garden

(Take a picture or draw a picture of each plant).



- Plant Type _____
- How much water is needed? _____
- How much sun or shade? _____

- Plant Type _____
- How much water is needed? _____
- How much sun or shade? _____

- Plant Type _____
- How much water is needed? _____
- How much sun or shade? _____

- Plant Type _____
- How much water is needed? _____
- How much sun or shade? _____

- Plant Type _____
- How much water is needed? _____
- How much sun or shade? _____

- Plant Type _____
- How much water is needed? _____
- How much sun or shade? _____