

# Unit One

## God Gave Us Water



"In the days of Noah, . . . eight souls were saved by water" (1 Peter 3:20).

### Unit One

#### God Gave Us Water

##### For Your Inspiration

Would you like to know how water is typified in the Bible? For the sake of brevity, the following selections of Scripture give only parts of the verses indicated by the references.

##### 1. *Water in ceremonial cleansing: the Word of God*

"They shall wash with water, that they die not" (Exodus 30:19-21).

"He that is washed . . . is clean every whit" (John 13:1-17).

"Now ye are clean through the word which I have spoken unto you" (John 15:3).

"That he might sanctify and cleanse it with the washing of water by the word" (Ephesians 5:26).

##### 2. *Refreshing, life-giving, flowing water: the Holy Spirit*

"And thou shalt smite the rock, and there shall come water out of it, that the people may drink" (Exodus 17:6).

"But the water that I shall give him shall be in him a well of water springing up into everlasting life" (John 4:14).

"He that believeth on me, . . . out of his belly shall flow rivers of living water" (John 7:38).

##### 3. *Turbulent seas: the nations*

"The floods of ungodly men" (Psalm 18:4).

"But the wicked are like the troubled sea" (Isaiah 57:20).

"The waters which thou sawest . . . are peoples, and multitudes, and nations, and tongues" (Revelation 17:15).

##### 4. *Water spilled on the ground: human helplessness*

"And they . . . drew water, and poured it out

Welcome to the study of science! Science is not new to you. You have already enjoyed science many times. When you study God's world, you are studying science. Perhaps this past summer, your family saw bears and elephants at the zoo. Or you may have taken a walk in the field and found daisies and wild roses. Even the food you eat is part of science. Water is part of science. The first lesson in this book is about water.

This science book will also tell about Noah. Did you know that Noah learned science too? His "classroom" was outdoors. His teacher was God Himself. God taught him to build the ark. God taught him how to take care of the animals. Noah learned about water, wood, and many other things. He must have been happy to have the very best science teacher of all.

Water was very important to Noah. His ark floated on water. By using water, God saved Noah and his family from the destruction of a wicked world. Noah was very thankful for this.

We are thankful for water. It helps us in many ways. We need water to live. God uses it to protect His world. In Unit One, you will study about water. Enjoy your study about water, for it is a very special part of God's creation.

before the Lord . . . and said there, We have sinned" (1 Samuel 7:6).

"For we must needs die, and are as water spilt on the ground" (2 Samuel 14:14).

"I am poured out like water" (Psalm 22:14).

"All knees shall be weak as water" (Ezekiel 7:17).

##### 5. *Flood water: judgment*

"I will cause it to rain upon the earth . . . ; and every living substance that I have made will I destroy" (Genesis 7:4).

"I am come into deep waters, where the floods overflow me" (Psalm 69:2).

"But let judgment run down as waters" (Amos 5:24).

##### 6. *Bitter waters: death*

"They could not drink of the waters of Marah, for they were bitter" (Exodus 15:23).

"Many men died of the waters, because they were made bitter" (Revelation 8:11).

## Water Is Important to Us

### New Words

*dissolve* (di • zolv'), to make a material disappear into water.

*property* (prop' er • tè), what a material is like.

*solution* (sə • loo' shən), a clear mixture of water and some material.

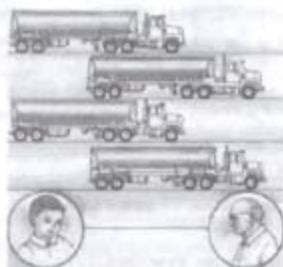
### Reading Together

What would you do without water? Pretend that tomorrow the water would be turned off. You could not wash yourself before breakfast. Your mother could not wash the breakfast dishes or your clothes. She could not water her plants.

At school, you might play hard, and your hands might get dirty. You might feel very warm and thirsty. You want water!

You can see how much we need water. Did you know that more than one-half of your body is water? Without water, you could not live more than a week. Your body needs about eight glasses (half a gallon) of water every day. If you live to be eighty years old, your body will need as much as four big tractor trailer trucks of water.

Does this mean that you drink all that water? No, you "eat" some of it. Your food is partly water. For example, more than half of an egg is water.



Your body will need four truckloads of water in eighty years.

A tomato and a watermelon also have much water in them. When you drink orange juice, milk, or tea, you are also drinking the water in them.

Every plant, animal, and person needs water. Without water, there would be no apples, roses, or pine trees. The cows and chickens would die. There would be no hamburgers.

## Lesson 1

### CONCEPTS TO TEACH

- Living things must have water to live.
- Water is used for washing.
- Water is used to make many useful things.
- Water is used to make solutions.
- Water has properties that are helpful.
- Water is used to put out fires.
- God put much water on the earth for us in the sky, ground, streams, rivers, lakes, and oceans.

*Note:* For the vocabulary words, the students may have a problem understanding the difference between *dissolve* and *solution*. If so, you could say that *dissolve* is what a material does in water; *solution* is what it becomes. Give examples in sentence form like this: "Do we dissolve or solution salt? Do we make a dissolve or a solution of salt? Do we drink a dissolve or a solution? Does sugar dissolve or solution in water?"

### HELPS FOR THE TEACHER

#### Introducing the Lesson

While introducing Lesson 1, you are also acquainting the students with the textbook as a whole. Have them find the Table of Contents. With it, lead them to discover what they will be studying this year. Ask, "How many big parts, or units, does this book have? What is the subject of each unit?" Notice how the lesson titles show that the lessons are all related to one idea. Ask, "What is the one big idea of the first unit? How does each lesson in the first unit tell about the idea of the unit?"

Next, you can have the students page through the book. Ask them to tell, by looking at the pictures, what they will be learning this year.

Now ask them to turn to Lesson 1. Discuss the pictures. See if they notice the many ways we use water. Ask for others, such as traveling by water or enjoying the beauty of a waterfall or the ocean.

Show them a globe. Ask whether the earth has



What uses of water are shown here?

or ice cream. Without water, there would be no "you"!

How good our God is! Are you thankful that He gave water for your home and school?

#### Reading on Your Own

Water is used for much more than washing and drinking. It is used to make many things. Maybe you have watched a builder mixing cement with water to make concrete. Sprays, paste, and some kinds of paint are made with water. The paper in this book was made from wood that was mashed and then mixed with water.

What happens when we mix white sugar with water? First, the water looks cloudy. Then slowly it becomes clear. The sugar and water make a *solution*. Sugar solutions are

used to can peaches and other fruit. Sugar water and all other solutions are clear.

Where does the sugar go? We say that it *dissolves* in the water. We cannot see it anymore. But we know that the sugar is still there because the solution tastes sweet. Tea, salt, and many other things can also dissolve in water.

Water has many important properties. A *property* of a material tells what it is like. Water is clear. Water tastes good and feels wet when we touch it. These are properties of water.

Another good property of water is that it will not burn. Firemen are glad for this property. Have you ever watched firemen spraying water on a fire? *Hiss! Pop! Crack!* The fire seems strong, but the cold water is

more land or more water. Ask for guesses of how much more—two, three, or five times? Do not give them the correct answer, but ask them to find it in the lesson.

*Materials needed:*

- globe

#### Extra Information

Did you know—

- ... that one *drop* of water contains millions of water molecules?
- ... that to raise the wheat for one loaf of bread, it takes more than 100 gallons of water?
- ... that each minute under the shower takes five gallons of water?
- ... that the average person uses 70 gallons of water daily?



stronger. The firemen try to drown all the fire before much harm is done.

Our great God knew all about our need for water. He put many billions of gallons of water on the earth. In fact, the earth is covered with almost three times as much water as land.

We can see the water in streams, rivers, lakes, and oceans. Big cities often get their water from rivers and lakes. Although the ocean has much more water than rivers and lakes, only a few cities get their water from the ocean. Can you guess why? Ocean water is a solution of salt. Salt is dissolved in the ocean water. The people would die if they drank salty

water. The cities that use ocean water must first take out the salt.

Some water is under the ground. If you live in a small town or in the country, probably your water is pumped from a well deep in the ground. Some people live near a spring where the water flows out by itself.

Some of the water is above the earth. It is waiting in the clouds. Someday it will fall to the ground as rain or snow.

Thank God for water. He put just enough water on the earth. He put it in the best places. He gave it the right properties. How wise God is!

### Test Your Reading

*Did you understand what you read? Find out by giving the answers. Number your paper from 1 to 10.*

- List three ways we use water. (Can you think of any ways not given in the lesson?)
- How much water do we need every day?
- Name three things that are made with water. (Again, try to think of things not given in the lesson.)
- Name four properties of water.
- Why do you think potatoes get wrinkled after a long while? (Think about what you learned today.)

*Choose the best ending for each sentence. Write the letter on your paper.*

- The word *solution* means
  - water used for washing.
  - something dissolved in water.
  - the water in food.

### Unit Project

Make a little "water world" for a unit project. It can help to make the lessons about the water cycle and erosion more real and understandable. It is also rewarding for the class to work together on such a project.

If you use a box, first line it with the heavy sheet of plastic to make it watertight. Actually, a large, shallow box would be better than a small, deep aquarium.

The soil should be damp so that it can be packed, but it should not be so muddy that it cannot be graded easily. Put the soil into the watertight box. Use the photo as your guide to form some hills and mountains. Form a bowl-shaped hole up in the hills for a lake. Form a winding ditch from the lake to the one end of the box which is the ocean.

*Materials needed:*

- large aquarium or large flat box
- heavy plastic sheet (if you use a box)

- soil
- green sponge
- plastic food wrap
- bucket of fine topsoil
- moss
- toothpicks
- wooden blocks or cardboard folded to form houses

Line the lake and the river with plastic food wrap. Allow the wrap to extend on all sides of the lake and river about an extra inch or two. Next, cover the sides of the lake and river with another half inch of soil. Make sure the land slopes toward the river. Pack the soil well and wet it down with a clothes sprinkler or by sprinkling water on it with your fingers.

Pour some water into the lake, and watch the water clean the river of any bits of loose soil as it flows into the ocean.

Cut or tear off small pieces of green sponge. Push toothpicks through them and stick them into

### Answers for "Test Your Reading"

- (Any three) Drinking, washing, making useful things (such as concrete, sprays, and paste), making solutions, putting out fires, fishing, watering crops, traveling by boat, etc. (3)
- About eight glasses (one-half gallon) (1)
- (Any three) Concrete, paint, paper, sprays, paste, etc. (3)
- It is clear. It tastes good. It feels wet. It will not burn. (4)
- Potatoes get wrinkled because they lose water and dry out. (1)
- b

## 16 Unit 1

7. c
8. a
9. b
10. a

(Total: 17 points)

### Comments on "Extra Activities"

1. The liquids given in the pupil's text should be classified as follows. (Additional liquids are listed here.)

#### Solutions

vinegar\*  
rubbing alcohol\*  
hot Jell-O\*  
tea\* (without milk)  
cough syrup\*  
Kool-Aid\*  
tincture of iodine or Merthiolate

the ground to make bushes and trees. Use the moss to cover the hills with grass. Put the grass, bushes, and trees on the hills but not on the fields. Try to make your water world look as real as you can.



## 12 Unit One God Gave Us Water

7. All solutions are
  - (a) cold.
  - (b) white.
  - (c) clear.
8. An example of a solution is
  - (a) sugar water.
  - (b) muddy water.
  - (c) milk and water.
9. The word *property* means
  - (a) that water is cold and clear.
  - (b) what something is like.
  - (c) where water is stored.
10. The earth has
  - (a) three times as much water as land.
  - (b) as much water as land.
  - (c) three times as much land as water.

### Extra Activities

Do these activities as your teacher directs.

1. Make a test about solutions. Get as many of these things as you can. Put them in little jars or bowls.

• vinegar	• milk	• tea
• orange juice	• muddy water	• cough syrup
• rubbing alcohol	• hot Jell-O	• Kool-Aid

Try to decide which are solutions. Remember, solutions are clear. They may be colored, but you can still see things through them. If you are not sure which are solutions, ask your teacher.

You might also give the test to other people at school or at home. Ask them if they can tell you which are solutions. If they guess most of them right, give them a solution of iced tea or Kool-Aid to drink.

#### Materials needed:

• liquids listed above  
• 9 to 12 small jars (baby food jars work fine)

### Bulletin Board

Make a large bulletin board display on the same theme as the illustration on page 10 of the text. Cut out a large blue drop of water for the center. The title could be *The Importance of Water in Our Lives*. Have the students bring pictures to illustrate this theme. Choose some Bible verses that are suitable to accompany the pictures. Make this an add-to bulletin board. As more pictures are brought in, keep adding them to the board until the display is papered with illustrations. This will impress the students with the concept that water touches almost every phase of our lives.

2. Find out for yourself that food has water in it. Take slices of various foods, such as an apple, a banana, a tomato, a potato, and bread. Put them in a dish in a warm, sunny window. See how big they are now. Weigh them if your school has an accurate balance.

Compare the size and weight in your next science class. Do the pieces get smaller? Do they change shape? Do they lose weight? Why?

*Materials needed:*

- slices of the foods listed above
- large, flat dish or several small dishes

3. Make a study to find where the students in your room get their water at home. At the top of a chart, write "Where Do We Get Our Water?" Under it, write Well, Spring, Cistern, and City Pipeline.

Write the name of each student below the word that tells where they get their water.

4. Make a solution of salt water that is as salty as ocean water. Measure out one cup of water. Add one teaspoon of salt. Stir until all of the salt is dissolved. Dip your finger into the salt solution and put a few drops on your tongue. This is how salty ocean water is. This water is too salty to drink. It would make you sick.

*Materials needed:*

- measuring cup
- measuring teaspoon
- water (1 cup)
- salt (1 teaspoon)



## QUIZ

Write the New Words on the chalkboard. Ask the students to say or write the word they think of when you give the phrases below.

1. Tells what something is like (*property*)
2. Clear mixture (*solution*)
3. To make a solution (*dissolve*)

Now ask, "What New Word do you think of when I say . . ."

4. Sugar water (*solution*)
5. Feels wet and tastes good (*property*)
6. To mix something with water until it disappears (*dissolve*)

Listerine  
honey  
bleach  
varnish

*Suspensions*

orange juice\*  
milk\*  
muddy water\*  
India ink (dilute with water)  
milk of magnesia  
Pepto-Bismol (any medicine that says "Shake well before using")  
paint

\*liquids listed in the text

2. The slices will become smaller and drier because they lose water.
4. This activity would be especially appropriate to do during the science class, since it takes very little time.