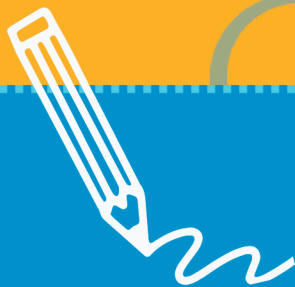




# IMAGINE A DAY WITHOUT WATER



Student Activity Book





## DISCUSS & BRAINSTORM

### WHAT WOULD A DAY WITHOUT WATER LOOK LIKE?

If we woke up today and nothing came out of the tap, how would you feel? Our daily routines consist of using water from the moment we wake up to the time we get ready for bed. Some people in America and other parts of the world, unfortunately do not easily have access to water. Storms, droughts, or failing pipes and facilities that provide water to communities can stop working leaving many without access to clean and safe drinking water.



### IMAGINE A DAY WITHOUT WATER

Imagine a Day Without Water is a National Day of Action to unite communities and people who can make changes in our water laws reminding them that clean and safe drinking water and sanitation services should be available to everyone. Today we *Celebrate Water* by learning about this important day and taking action to let others know how precious water is.



### BRAINSTORM

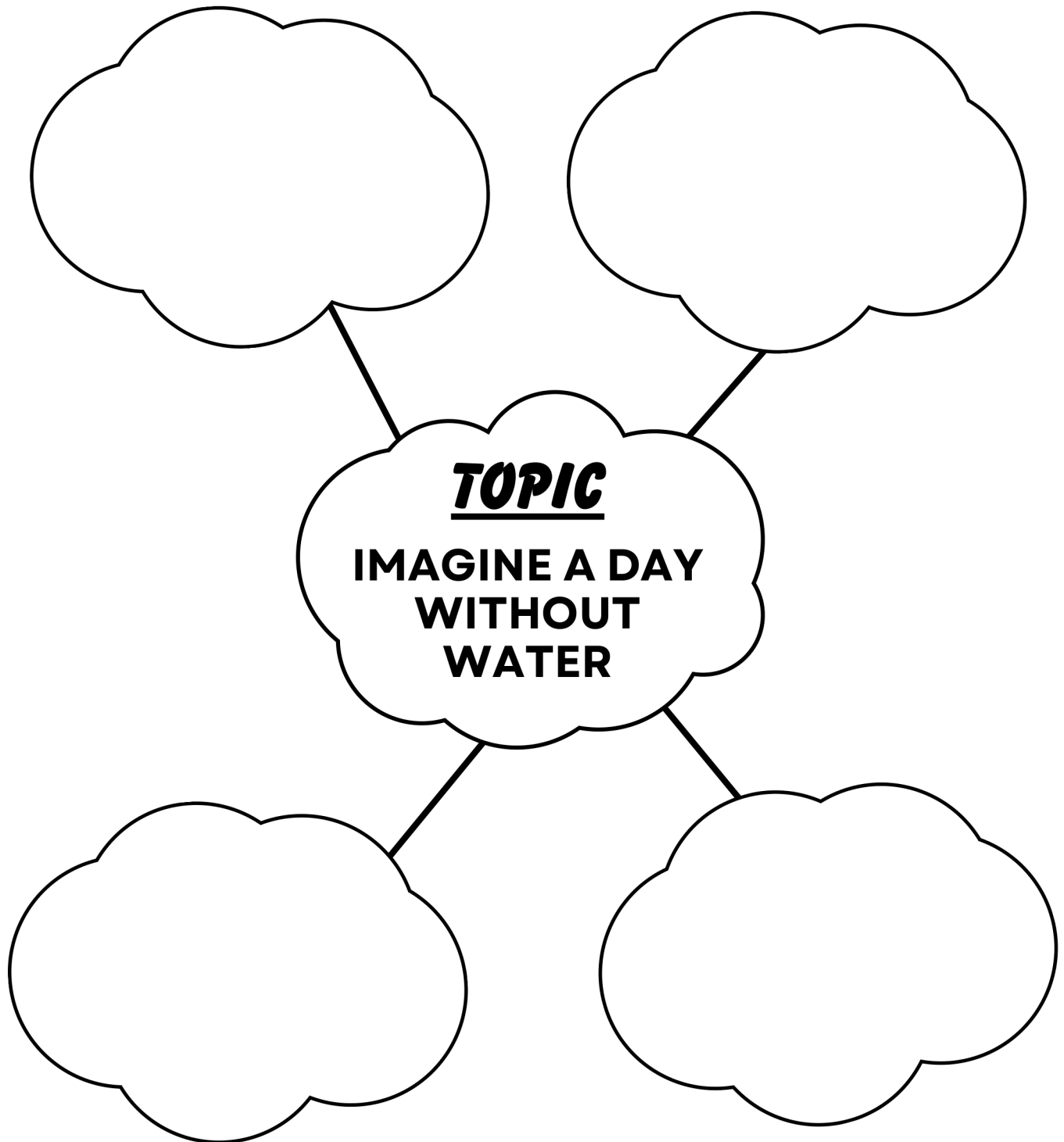
Ask your teacher if you could find a partner and share with each other what your day would be like if water was not available. Using the graphic organizer on the next page, write down the ideas you and your partner discussed and found the most important. Some examples of A Day Without Water would be, not being able to flush the toilet, or brush our teeth. What else can you and your partner think of?

WRITE DOWN YOUR IDEAS



NAME: \_\_\_\_\_

DATE: \_\_\_\_\_





***SOLVE & EXPERIMENT***



# ***THE CASE OF THE DISAPPEARING WATER***

**You are the detective in this case!**



*Original concept of the story by Susan M. McMaster*





You are called to the home of Mrs. Flowers. When you arrive on the scene, Mrs. Flowers' grown son, Frank Flowers, is frantic.

### His mother is missing!

You ask Frank how long his mother has been missing. "That's just it, " Frank says. "I've been traveling a lot and kept forgetting to phone her. Now I feel terrible. I have no idea where she is or how long she's been missing."

"Do you know of some places where she might have gone?" you ask. Frank wrinkles his brow and thinks hard. "Well," he says, "her habits are very predictable. If she has been gone less than a day, she probably went shopping."



If she's been gone for less than three days, she may be visiting one of her sisters. She would never visit anyone for more than three days."



"If she's been gone more than three days, but less than seven," continues Frank, "she's probably taking a vacation on a cruise ship. I'm sure she can't afford more than a seven-day cruise."

If she's been gone more than seven days, but less than six weeks, she's probably received the grant that she applied for. She wants to study art in Europe.



If she's been gone more than six weeks, she is probably at her mountain cabin. However, she never stays there more than two months.



If she's been gone longer than two months, aliens must have captured her and taken her to another galaxy.

She loves her plants and her home. She would never stay away longer than two months for any reason."

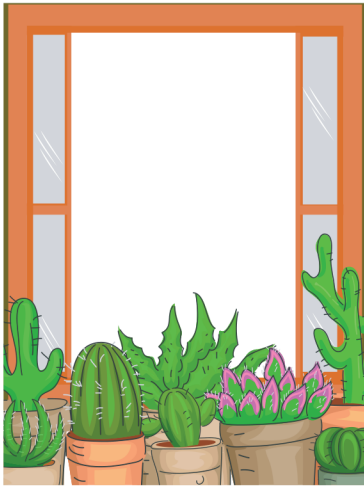


"I think I can help you solve this mystery," you say while looking around the house.

"Did you find a note?" asks Frank hopefully. "No," you say, "but I did find this glass measuring cup in the window."



"Oh," says Frank, "that's nothing. Mother is very particular. Every morning she fills the measuring cup to exactly one cup. Then she puts it in the window sill to warm in the sun for a little while before she waters her African Violets.

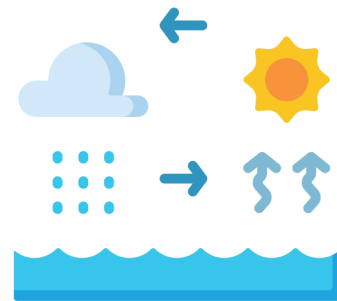


She is very careful about how much water she uses because she doesn't want to over-water or under-water the plants."

"Aha!" you shout. "Just as I suspected, this is precisely where we must begin our search. The measuring cup now has exactly  $\frac{3}{4}$  of a cup of water."

"Are you saying someone stole  $\frac{1}{4}$  of a cup of water?" asks Frank.

"No sir," you say, trying to keep a straight face. "It's a matter of **evaporation**. Ya' see, water evaporates to the atmosphere. The warmth of the sun changes the liquid into water vapor that we can't see. It's part of the **water cycle**."



"To make a long story short," you continue. "we're going to conduct an experiment. We'll put a cup of water in a sunny place and keep track of how long it takes to evaporate. Based on that experiment, we will estimate how long ago Mrs. Flowers left the measuring cup in the window sill."

"What a relief!" says Frank. "What should I do now?"

"I suggest you water the plants," you reply...



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## THE CASE OF THE DISAPPEARING WATER

### STEP 1

Read "*The Case of the Disappearing Water.*"

### STEP 2

Write down the facts of the case:

1. Original amount of water in the measuring cup

\_\_\_\_\_

2. Amount of water in the measuring cup now

\_\_\_\_\_

### STEP 3

Write down where Frank Flowers said his mother might be:

1. If Mrs. Flowers has been gone for less than a day, she probably

\_\_\_\_\_

\_\_\_\_\_

### STEP 3

2. If Mrs. Flowers has been gone for less than 3 days, she may be

\_\_\_\_\_

\_\_\_\_\_

3. If she's been gone for more than 3 days but less than 7, she's probably

\_\_\_\_\_

\_\_\_\_\_

4. If she's been gone for more than 7 days but less than 6 weeks, she's probably

\_\_\_\_\_

\_\_\_\_\_

5. If she's been gone for more than 6 weeks but less than two months, she is

\_\_\_\_\_

\_\_\_\_\_

6. If she's been gone longer than two months,

\_\_\_\_\_

\_\_\_\_\_

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## ***THE CASE OF THE DISAPPEARING WATER***

### **STEP 4**

**Develop a hypothesis.**

**Tell what you think will happen before you do the experiment.**

1. How long do you think the water was left on the window sill?

\_\_\_\_\_

2. Where do you think Mrs. Flowers went?

\_\_\_\_\_



## ***EXPERIMENT***

**Perform an experiment to establish approximately how long it took for the water to evaporate.**

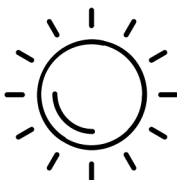
### **MATERIALS NEEDED**



**ONE CUP  
LIQUID  
MEASURING CUP**



**WATER**



**SUNLIGHT**



**PENCIL**



**THE CASE OF THE  
DISAPPEARING  
WATER  
EXPERIMENT  
DATA SHEET**

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_



## ***THE CASE OF THE DISAPPEARING WATER***

### **Experiment Data Sheet**

#### **STEP 5**

##### **Directions:**

1. Write down today's date: \_\_\_\_\_
2. Fill the measuring cup to the 1 cup line with water.
3. Put the cup in a sunny window.
4. Record how many days it takes for the water in the measuring cup to be at the three-fourths cup line. You may use the back of this sheet if needed.

#### **STEP 6**

##### **Write your conclusions.**

1. It took approximately \_\_\_\_\_ days for the water to evaporate.
2. Where should Frank begin looking for Mrs. Flowers?

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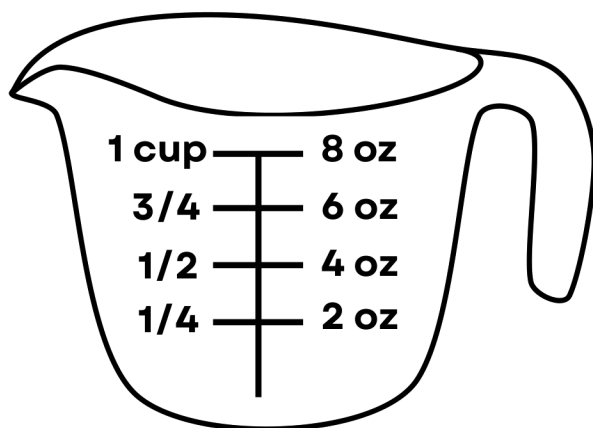
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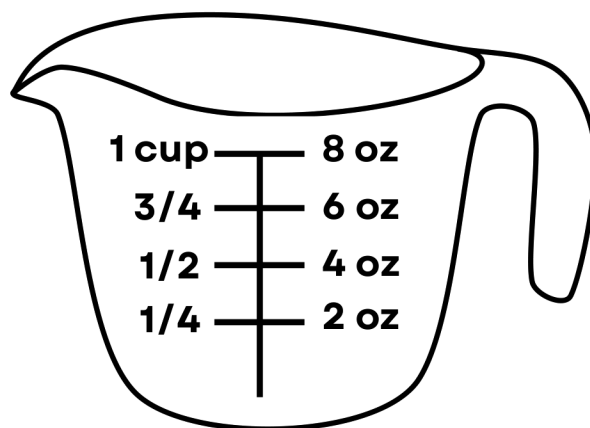
# ***PRACTICE***

## Using Measuring Cups

Instructions: Color the measuring cup up to the indicated amount.

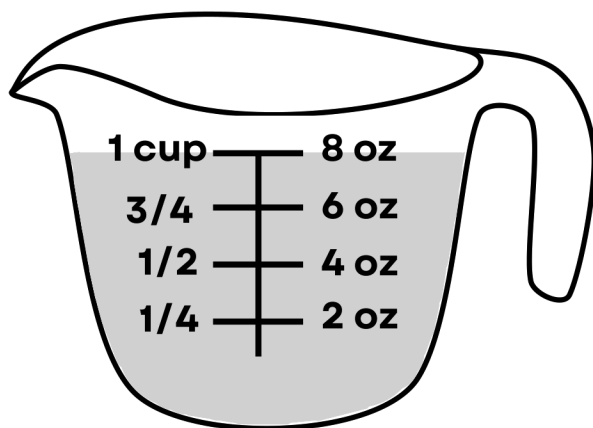


**1/2 CUP**



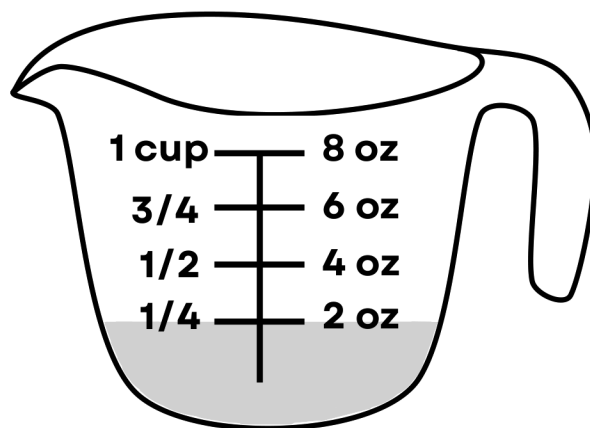
**3/4 CUP**

Instructions: Write down the measurement of each measuring cup in cups and liquid ounces.



\_\_\_\_\_ cup

\_\_\_\_\_ oz.



\_\_\_\_\_ cup

\_\_\_\_\_ oz.





# ENGAGE

PAIR THE ACTIVITIES IN THIS  
GUIDE WITH THIS ART CONTEST!

## FALL 2023 ART CONTEST

### HOW TO PARTICIPATE:

1

Have your teacher sign-up  
for the art contest!

2

Read "*The Case of the  
Disappearing Water*"

3

Complete Steps 1 - 6 of the  
experiment.

4

Use your brainstorming sheet and  
the art contest sketch page to begin  
your preliminary drawing.

5

Begin working on your final art piece  
for the contest. Make sure to add  
color, details, and contrast.



### CONTEST AWARDS

13 WINNERS will be featured in a 2024 Calendar  
AND receive a prize!

The top 3 winners (1st, 2nd, and 3rd place) AND their sponsoring  
teachers will receive a SPECIAL PRIZE!

Winners and Honorable Mentions will be recognized  
in an online award celebration!



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## ***ART CONTEST SKETCH PAGE***

**Get ready to exercise that creative brain of yours!**

**Art Contest Prompt:** Imagine what A Day Without Water would look like. Draw a sketch below of what we would miss if we didn't have water. Use your brainstorming sheet to help you begin. After you've completed your sketch and written a description, ask your teacher for a new sheet of paper to draw your final art entry for the art contest!



**Use this space to write down a brief description of your picture.**

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