

Colorado Springs Utilities
It's how we're all connected

STUDENT WORKBOOK

**Water Wise Demonstration Garden
discovery activities for youth**

Name: _____

Station #1 – Water System

Look at map on the “Tracing the Source” sign in the Water Wise Demonstration Garden. How many major pipelines bring water to town?

_____ pipelines bring water to town.

Water Warrior Decoder

Decode the words below to learn about Colorado Springs' water.

1 = A	5 = E	9 = I	13 = M	17 = Q	21 = U	25 = Y
2 = B	6 = F	10 = J	14 = N	18 = R	22 = V	26 = Z
3 = C	7 = G	11 = K	15 = O	19 = S	23 = W	
4 = D	8 = H	12 = L	16 = P	20 = T	24 = X	

_____ is collected
in the _____ mountains and
travels up to 100 _____ in
_____ to get to _____.

Getting water to our city is no easy task! We depend on the weather to provide enough snow to fill our reservoirs. Sometimes we are in drought – times of less precipitation than normal – so it is even more import to use water efficiently.

What is one thing you can do to conserve water and use it wisely?

Solve this puzzle to find out how far I had to travel to get to you!



Station #2 – Pollinators

What is a Pollinator? Pollinators are animals of all sorts that move pollen from one flower to another. This process helps the plants develop fruits.

Pollinator Hunt: How many of each can you find? Tally the numbers you see and draw pictures of your favorites!

Butterfly Butterflies hold their wings upright when they land.	Honeybee Honeybees are fuzzy and have orange and brown stripes on their abdomen	Native Bee Native bees might be yellow and black, solid black, green, or even blue.
Hummingbird Hummingbirds are small and make a buzzing sound when they fly close to you.	Bumblebee Bumblebees are large, round, yellow, black and fuzzy!	Lady Beetles These common insects have red wings with black spots. They eat aphids rather than pollen and nectar.
Wasp Wasps are all different colors, but have a very narrow waist.	Beetle Beetles have thick outer wings that close when they land to cover their back.	Fly Flies have only two wings rather than four, like bees.

Station #3 – Plant Adaptation Scavenger Hunt

Plants have adapted (evolved changes to survive) to save water. Plant adaptations could include:

- (S) Succulent** – stores water in thick leaves or stem
- (L) Light-Colored Leaves** – reflects lights and keeps plant cool
- (F) Fuzzy Leaves** – reflects light and works as a natural sunscreen
- (W) Waxy Leaves** – holds water in and keeps heat out
- (T) Tiny Leaves** – less surface area to lose water
- (N) Needles** – tiny and waxy leaves help evergreen trees save water
- (O) No Leaves** – does not lose water through leaves

In the Water Wise Neighborhood area, find the Stop # sign and examine the plant next to it. Write down the letter(s) that correlate to the adaptation(s) the plant is demonstrating to save water. Note: Some plants may have more than one adaptation!

Stop 1 _____

Stop 2 _____

Stop 3 _____

Stop 4 _____

Stop 5 _____

Stop 6 _____

Stop 7 _____

What was your favorite adaptation and why?

Station #4 – Plant Sensory Exploration Zone

Write the names of three interesting plants you visited during this activity:

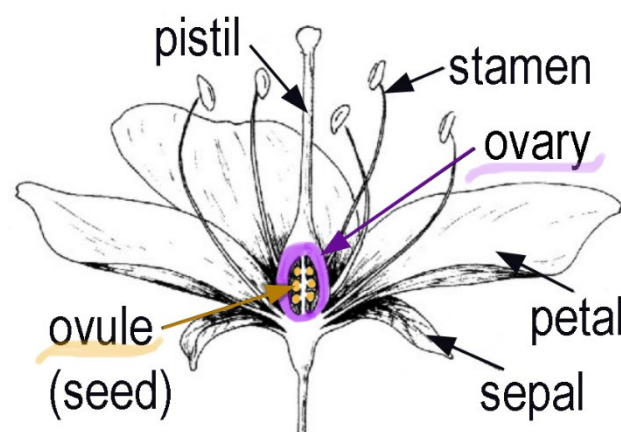
1. _____
2. _____
3. _____

What was your favorite plant and why?

Turn your garden bracelet into a bookmark at home! Here's how:

1. Unfasten your bracelet so it can lay flat
2. Carefully lay a sheet of clear plastic wrap on top so there are no wrinkles
3. Set a heavy book or weight on top to press the flowers
4. After a week, remove the book or weight
5. Trim the edges
6. You can laminate or cover it in clear packing tape to make the bookmark stronger
7. Enjoy reading and using your bookmark

Plants and flowers can be beautiful and fun! Take home a free seed packet and grow your own flowers (available inside the Conservation & Environmental Center). Parts of a flower:



To learn more about beautiful water wise landscape plants that grow well in Colorado Springs, visit waterwiseplants.org.

Station #5 – Indoor Water Efficiency Exhibit Scavenger Hunt

Find 6 Dewey water drops hiding in our House Efficiency Exhibit and write down the answers to these questions:

Clue #1 - Dewey likes to help get your dishes clean! What uses less water – washing dishes **by hand** or using the **dishwasher**? (circle what uses less water)

Clue #2 – Dewey is hiding somewhere cold! When you find him, you can also figure out this answer: It takes _____ gallons of water to produce a glass of milk.

Clue #3 – Dewey loves to take a spin with your clothes to get them clean! Find Dewey and then turn the knob to complete the answer: Energy Star washers use _____ gallons of water verses the average 23 gallons used in a regular washer, which saves _____ gallons of water a year.

Clue #4 – Dewey spends a lot of time in the bathroom – can you find him before he goes down the sewer pipe? Press the silver “Savings” button near the toilets. How many gallons a year do you save if you switch to a high-efficiency toilet? _____ gallons saved a year.

Clue #5 – Dewey needs good lighting to do his homework at his desk! It takes water to make electricity for the light. How many gallons of water are saved per year by replacing one 60 watt lightbulb with an LED lightbulb? _____ gallons of water saved per year.

Clue #6 – Dewey likes our new Water System Touchscreen exhibit. Find the answer by pressing the “How Water is Used” button: What is the typical annual home water use? _____ gallons per home every year.

Dewey's Efficiency Pledge **I pledge to:** (check all that you can do)

- | | |
|---|--|
| ☐ Turn off the lights because it takes a lot of water to make electricity. | ☐ Only put my clothes in the laundry if they are dirty. |
| ☐ Fill the bathtub only half full when I take a bath. | ☐ Turn off the water while brushing my teeth or washing my hands. |
| ☐ Scrape instead of rinse my dishes before putting them in the dishwasher. | ☐ Shorten my shower time to only 5 minutes. |



**FREE
Showerhead
Exchange!**

Bring up to two (2) showerheads from home and get new, high-efficiency ones to save water and money.

CONSERVATION AND ENVIRONMENTAL CENTER (CEC)

Visit our Conservation and Environmental Center for all your energy and water efficiency needs:

Get your ducts in a row

- Learn how to improve duct performance in your house by properly sealing air leaks and earn a rebate of up to \$200.

Turn up the savings with a smart thermostat

- Compare smart thermostat models and learn how you can save with our \$50 rebate.

Watts up with renewable energy?

- Understand how solar panels work, how to get a renewable energy rebate and what we are doing to protect the energy future of the Pikes Peak region.

See LED efficiency in a new light

- Test and evaluate LED, CFL and incandescent light bulbs and compare savings year over year.

2855 MESA ROAD
Open M-F, 8 a.m. to 5 p.m.
• 719-668-8232 • csu.org •

Water Wise Demonstration Garden & Yard Exhibit: Open seven days a week during daylight hours

Save some bank at the water tank

- Discover practical DIY options to save on water heating costs and learn about our \$50 rebate.

Power up with the ChargePoint electric vehicle charging station

- Learn about the benefits of electric vehicles (EVs) and their impact on the environment.

Reduce, reuse, recycle

- Confused about recycling? Get the facts from food waste to major appliances and even toilets.

Learn from the best

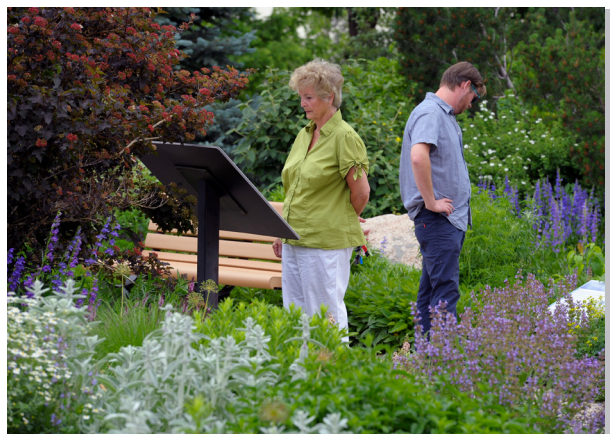
- Our experts are on hand to answer all your questions on energy and water efficiency, rebates, renewable energy, water wise landscaping and more.



Tour our indoor exhibit during our regular business hours.

Customer programs and resources

- Water Wise Demonstration Garden tours
- Water Wise Landscape Classes
- Water Wise Yard Exhibit
- Home energy audit
- Home efficiency exhibit
- Smart thermostat display
- Renewable energy display
- Energy and water efficiency rebates including:
 - irrigation
 - insulation and air sealing
 - water heater
 - renewable energy
 - refrigerator/freezer recycling
 - electric clothes dryer
 - furnace
 - smart thermostat
- Showerhead exchange
- Explore Your Water System interactive display
- Holiday light exchange
- Annual Efficiency Expo, 2nd Saturday in June



Best time to tour our gardens: April to October.