WATERDROPS

Activity Packet

for Grades 3–5

Southwest Florida
Water Management District
WATERMATTERS.ORG · 1-800-423-1476

This document complies with WCAG 2.2 AA standards

WELCOME

Welcome to the ***WaterDrops Activity Packet*** for elementary students offered by the Southwest Florida Water Management District (SWFWMD). The packet is correlated to grades 3–5 of the Florida State Academic Standards and provides an interesting way for students to increase their awareness and respect for water resources and our environment.

This packet contains 12 activities that focus on various water-related topics. We have also included a water cycle poster. All the information and activities are designed to teach students about the importance of protecting and maintaining our water resources. Let ***WaterDrops*** make a splash in your classroom today!

Many other free materials are available from the SWFWMD and can be ordered online at *WaterMatters.org/Publications*. We also offer a variety of water education resources at *WaterMatters.org/Education*. Please contact us if you have any questions or suggestions about our water resources education programs.

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WaterDrops Activity Packet for Grades 3–5

1. **Waterful Foods**
   Learning Goal: To appreciate the amount of water needed to grow and produce the foods we eat.

2. **We Are Water Users**
   Learning Goals: To develop an understanding of the importance of water in our daily lives.
   To learn about several ways we use water indoors and outdoors.

3. **Water Sense Adventure**
   Learning Goals: To appreciate our natural environment.
   To learn about the five senses and practice creative writing skills.

4. **The Plant and Pollution Connection**
   Learning Goals: To learn about the effects of acid rain.
   To provide practice in reading material about pollution.

5. **Water Cycle Hanger**
   Learning Goals: To understand the parts of the water cycle.
   To create a mobile that illustrates the water cycle.

6. **Habitat Visors**
   Learning Goals: To learn about the kinds of plants and animals that live in a particular habitat.
   To appreciate the importance of protecting our natural environment.

7. **Moisture Monitor**
   Learning Goals: To understand the importance of weather in our daily lives.
   To become aware of the connection between water and weather.

8. **Caring About the Environment**
   Learning Goals: To express opinions about the importance of a healthy environment.
   To learn more about issues related to natural resources.

9. **Conservation Tic-Tac-Toe**
   Learning Goals: To increase awareness about the importance of water conservation.
   To learn about several practical ways to save water at home.

10. **The Sweating Landscape**
    Learning Goal: To develop an understanding of condensation and transpiration.

11. **Environmental Postcard Pals**
    Learning Goal: To communicate important messages about water resources and our environment.

12. **Water Chalk Graffiti**
    Learning Goals: To appreciate the beauty of our natural resources.
    To create meaningful poems and messages about water.

This document complies with WCAG 2.2 AA standards

Waterful Foods

More than two-thirds of our bodies are made up of water! That's why we need to drink a lot of water to stay healthy. We also get water from the foods we eat. Do you know how much water it takes to grow and produce the foods that we eat? Try this activity and find out!

Learning Goal

To appreciate the amount of water needed to grow and produce the foods we eat.

Background

Most people don't realize how much water we consume through the foods we eat. We drink plenty of water every day, but we also "eat" water that is contained in a variety of foods. It also takes a lot of water to grow and produce these foods. In this activity, students will discuss the amount of water needed to produce one serving of commonly eaten foods. Then they will use their math skills to perform computations and complete a chart.

Materials • pencils • copies of "Waterful Foods" activity sheet

Activity

1. Begin this activity by asking your students how much water they drink each day.
2. Ask students to raise their hands if they eat foods that contain water. All hands should go up because most foods contain water. Give examples of foods we eat that contain water: fruits, vegetables, juice, etc.
3. Explain to your students that all of the food we eat requires water in order to grow or be produced. Discuss how much water they think may be needed for various types of foods.
4. Distribute copies of the activity sheet. Read together the information about the water needed for each serving of the foods on the list.
5. Have students work in pairs or groups to complete the Waterful Puzzler. Discuss the results together.

Waterful Puzzler answers:

Water Needed for 10 Common Foods

Name of Food	Family Size			
	2 People	3 People	5 People	Your Family
Milk	128	192	320	
Potatoes	18	27	45	
Lettuce	14	21	35	
Watermelon	14	21	35	
Chicken	260	390	650	
Beef	926	1,389	2,315	
Bread	96	144	240	
Almonds	966	1,449	2,415	
Tomatoes	12	18	30	
White Rice	146	219	365	

Extension

Have students make a list of the 10 common foods, beginning with the food that requires the least amount of water to produce to the most amount of water.

Florida B.E.S.T. and State Academic Standards (3-5)

English Language Arts: ELA._.R.2, ELA._.C.1, ELA._.C.2; Mathematics: MA._.NSO.1, MA._.NSO.2; Science: SC.3.L.17.2, SC.4.L.17.4, SC.5.N.1.1

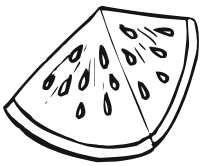
WATERDROPS

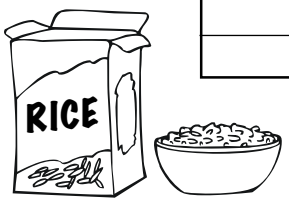
Activity Number 1

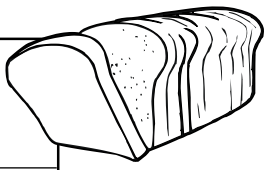
Waterful Foods

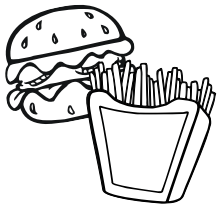
It takes a lot of water to grow or produce the food we eat. All plants and animals need water. Plants and crops may get their water from the clouds in the form of rain. Other water may come from hoses, water troughs and irrigation systems. Water is also used to prepare foods for market.

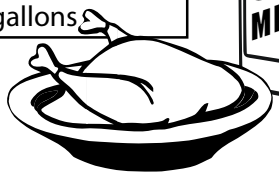
Do you know how much water is needed to make just one serving of the foods you eat? The chart below shows a list of 10 common foods and how much water it takes to make a single serving. The numbers will probably surprise you!











Water Needed to Produce a Single Serving

Name of Food	Amount of Water
Milk	64 gallons
Potatoes	9 gallons
Lettuce	7 gallons
Watermelon	7 gallons
Chicken	130 gallons
Beef	463 gallons
Bread	48 gallons
Almonds	483 gallons
Tomatoes	6 gallons
Rice	73 gallons

Waterful Puzzler

You know how much water it takes to make a single serving of each food. But most families are made up of more than one person. Try to decide how much water will be needed to make enough servings for different families. When you finish, these numbers will REALLY surprise you!

Water Needed for 10 Common Foods

Name of Food	Family Size			
	2 People	3 People	5 People	Your Family
Milk				
Potatoes				
Lettuce				
Watermelon				
Chicken				
Beef				
Bread				
Almonds				
Tomatoes				
White Rice				

We Are Water Users

All of us are water users. We use water in our daily lives for a variety of activities. Find out about a few ways that we use water indoors and outdoors.

Learning Goals

To develop an understanding of the importance of water in our daily lives.
To learn about several ways we use water indoors and outdoors.

Background

We often don't think about how much water we use. Water always seems to be there whenever we need it. Increase student awareness of the ways we use water in our homes and outdoors. This activity will help your students discover how we depend on water in our daily lives. You may also want to use this activity as an opportunity to discuss ways in which your students can avoid wasting water.

Materials

- pencils, crayons, markers
- construction paper
- glue or staples
- lined paper
- copies of "How We Use Water Indoors and Outdoors" activity sheet

Activity

1. Ask your students to describe different ways they use water inside their homes. Then have them list ways they use water outside their homes.
2. Ask students to read through their lists of water-using activities and decide whether their families could reduce the amount of water they use for each activity.
3. Follow the directions on the activity sheet for making the small displays.

Extension

Have students take their displays home and encourage them to share the information with their families. This will help families become more aware of the many ways they use water in and around their homes.

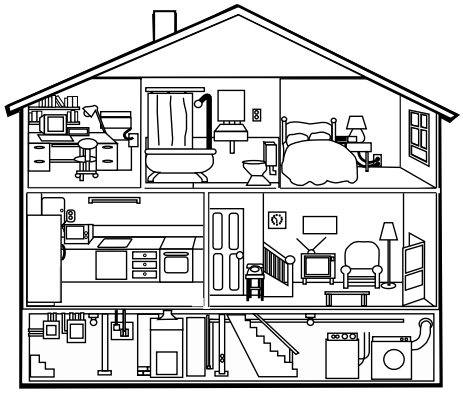
Florida B.E.S.T. and State Academic Standards (3-5)
English Language Arts: ELA._.C.1, ELA._.C.2; Visual Arts: VA._.H.3; Science: SC.4.L.17.4, SC.4.E.6.3, SC.5.N.1.1; Social Studies: SS.3.CG.2.1

WATERDROPS

Activity Number 2

How We Use Water Indoors and Outdoors

Here is a chance to use your creative talents to make two displays that show how your family uses water. You can use the pictures below to help you. First create a colorful picture to represent INDOORS and attach a sheet of lined paper for your list of indoor watering activities. Then create a colorful picture to represent OUTDOORS and attach a sheet of lined paper for your list of outdoor watering activities.



INDOORS

OUTDOORS

Water Sense Adventure

Water can really get to our senses! In this activity, you will learn about the five senses and how water can affect each one of them.

Learning Goals

To appreciate our natural environment.
To learn about the five senses and practice creative writing skills.

Background

Water affects all five of our senses: touch, taste, sound, sight and smell. In this activity, your students will discover the importance of water and how we use all our senses to identify and appreciate it. They will also use their creative thinking skills to describe various situations in which we can sense the presence of water. For additional reinforcement, groups of students can use their water sense droplets to play the game as an extension of the activity.

Materials

- pens or markers
- scissors
- copies of "Water Sense Droplets" activity sheet
- blue crayons
- paper

Activity

1. Discuss the five senses with your students. Try to give an example of each sense without using its name. You may want to use the following examples:
   Touching — "The cool lake water tickles my toes."
   Tasting — "The bird approached the river for a drink of water."
   Smelling — "The water near the pond had a fishy odor."
   Hearing — "The hail banged on our windshield during the storm."
   Seeing — "The foamy waves rolled up onto the beach."
2. Brainstorm with your students to create other examples for each of the senses.
3. Emphasize that we experience water with all of our senses.
4. Have students use the pattern on the next page to trace and cut out five water droplets.
5. Students should color the front side of each droplet blue and label it with one of the five senses.

Continue until all droplets are colored and labeled.

6. Ask students to turn each droplet over and create a water-related description about the sense labeled on the front.
7. Have students share their descriptions and let others try to guess which sense is associated with it.

Extension

Organize groups and have them mix up their cards and place them in a pile with the blue side facing downward. Have students take turns reading the description and deciding which of the five senses it matches. For a correct match, the student keeps the card. When the pile is gone, the student with the most cards is the winner.

Florida B.E.S.T. and State Academic Standards (3-5)
English Language Arts: ELA._.C.1, ELA._.C.2, ELA._.C.5; Visual Arts: VA._.H.3; Science: SC.4.E.6.6

WATERDROPS

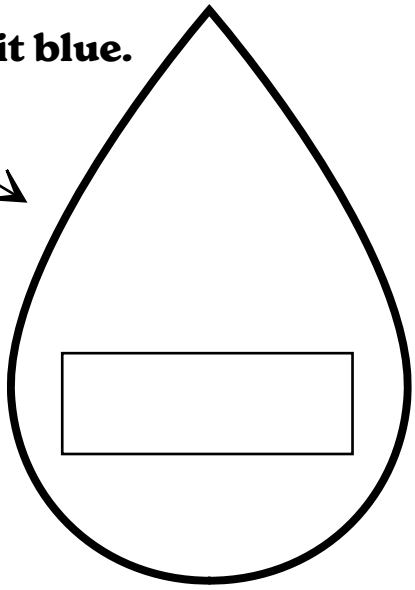
Activity Number 3

Water Sense Droplets

Let's get ready to play the Water Sense Adventure. Before you can play the game, you will need to make a set of five water sense droplets. Use the pictures below to help you.

Side 1

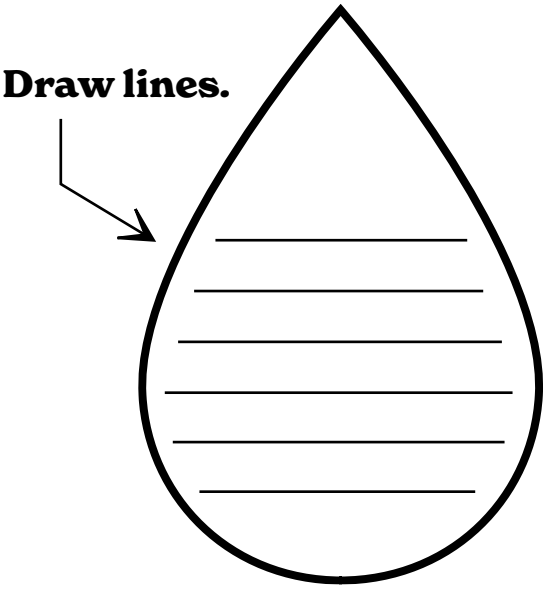
Color it blue.



Write the name of the sense.

Side 2

Draw lines.



Write your sentence on this side.

The Plant and Pollution Connection

When rain falls from the sky, it can carry dangerous chemicals along with it. This type of rainfall is called *acid rain*. Rain with high amounts of chemicals from automobile exhaust, power plants and factories can be harmful to trees and plants. Try this experiment to find out what acid rain can do to plants.

Learning Goals

To learn about the effects of acid rain.
To provide practice in reading material about pollution.

Background

Our environment can cope with reasonable amounts of acid rain, which is more acidic than pure water. Pure water has a pH of 7.0, but acid rain has a pH of less than about 5.3. In this experiment, students will compare two plants that have been watered with different concentrations of acidic water. Students will discover that the more acidic the water, the greater the damage to plant life.

Materials

- paper
- markers
- 2 small pots
- 2 small plants
- 2 plastic jugs
- tap water
- vinegar
- pebbles
- pencil
- soil
- copies of "The Plant and Pollution Connection: An Experiment" activity sheet

Activity

1. Introduce your students to the concept of acid rain. Explain that acid rain can be caused by human activities. Chemicals rise into the atmosphere and dissolve in the water vapor in the air. When it rains, these droplets fall down to the earth's surface.
2. Distribute copies of the activity sheet. Read through the directions together.
3. Perform the experiment by working in pairs or small groups.
4. Discuss the results. Emphasize the importance of reducing the amount of acid rain in our atmosphere.

Extension

Now that your students have witnessed the effects acid rain can have on plants, discuss ways in which people could reduce the amount of chemicals in our atmosphere. Examples may include using more efficient cars, encouraging people to carpool to work and school, and making factories reduce amounts of chemical exhaust.

Florida B.E.S.T. and State Academic Standards (3-5)
English Language Arts: ELA._.R.2, ELA._.C.1, ELA._.C.2; Mathematics: MA._.NSO.1, MA._.NSO.2; Science: SC.3.L.14.2, SC.3.L.17.2, SC.4.L.17.4, SC.5.E.7.4, SC.5.N.1.1; Social Studies: SS.3.CG.2.1

WATERDROPS

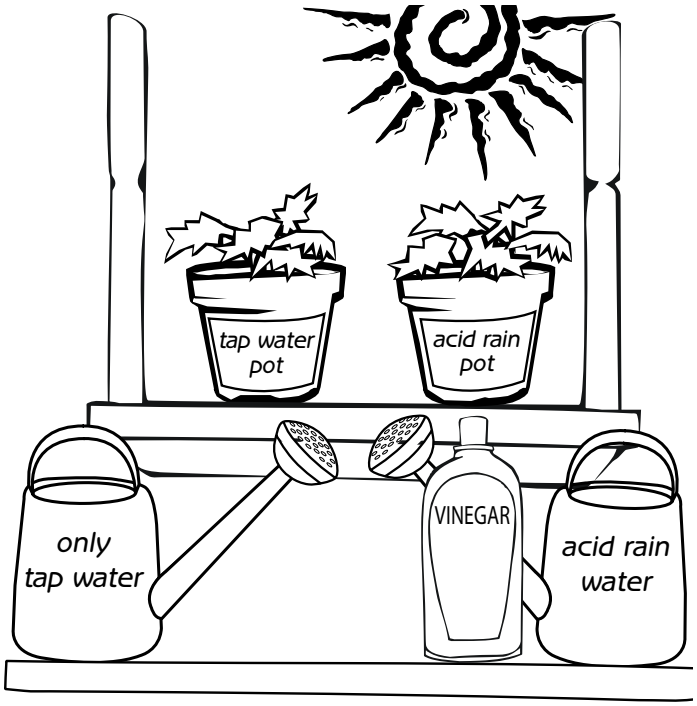
Activity Number 4

The Plant and Pollution Connection: An Experiment

You have learned that acid rain can harm the environment. Now try this experiment to see what happens to a plant watered with acid rain.

Directions:

1. Place a layer of pebbles in each of the pots.
2. Fill each pot with soil and a small plant.
3. Label one pot "acid rain pot." Then label the other pot "tap water pot." See illustration.
4. Pour water into the first plastic jug and label it "only tap water."
5. Mix half water and half vinegar into the second plastic jug and label it "acid rain water."
6. Water each of the plants with its matching water. Then place them in a sunny location.
7. Water the plants each day and record any changes on a chart like the one below. Describe the color and texture of the leaves.
8. Discuss the results.



	The Plant and Pollution Connection Record	
date	acid rain pot	tap water pot

This document complies with WCAG 2.2 AA standards

Water Cycle Hanger

Are you familiar with the water cycle? This activity will help you learn all about the water cycle and create a water cycle mobile at the same time!

Learning Goals

To understand the parts of the water cycle.
To create a mobile that illustrates the water cycle.

Background

Use the water cycle poster included in this packet to teach or review the marvelous motion of water through our environment. Emphasize that the water cycle has no beginning and no end but is continuously moving from one form to another. In this activity, students will design a mobile that could be used to explain the water cycle to others.

Materials

- pencils, pens, crayons, markers
- scissors
- string
- copies of "Water Cycle Hanger" activity sheet
- heavy paper
- metal hanger
- paper punch
- water cycle poster (included)

Activity

1. Study and discuss the water cycle poster.
2. Distribute copies of "Water Cycle Hanger" activity sheet.
3. Read the instructions together.
4. Complete the activity together and display the mobiles in the classroom.

Extension

Encourage students to take their hangers home and use them to explain the water cycle to family members.

WATERDROPS

Activity Number 5

Water Cycle Hanger

Let's review the parts of the water cycle.

Solar Energy The sun is the energy source that makes the water cycle happen.

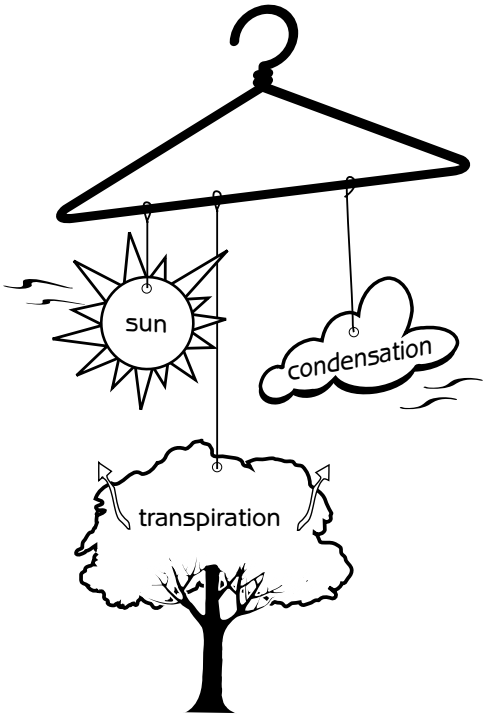
Evaporation Vapor is created when the sun heats water in lakes, streams, rivers and oceans.

Transpiration Vapor is created when plants and trees give off moisture.

Condensation Tiny droplets of water are formed when water vapor rises into the air and cools.

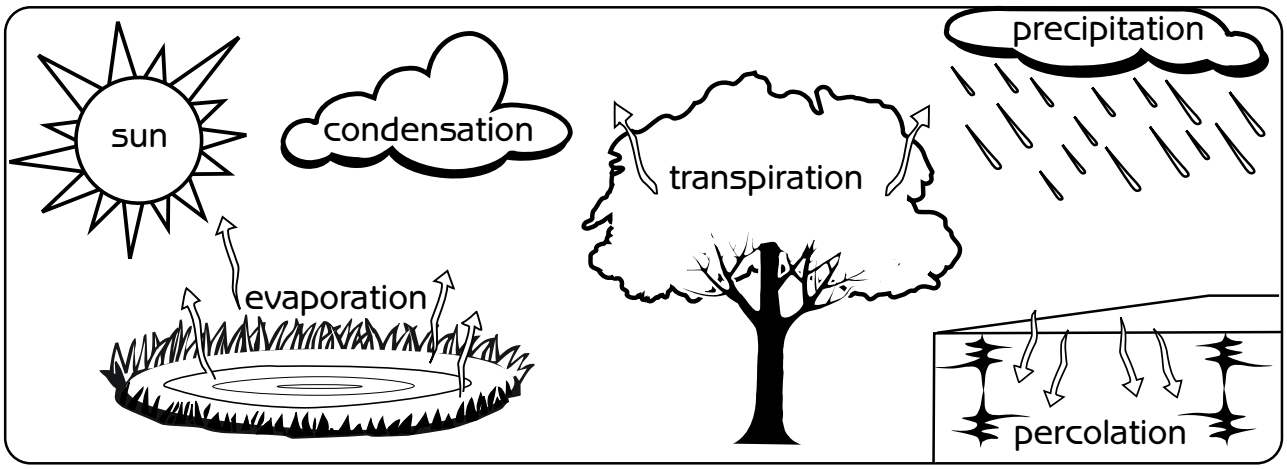
Precipitation Moisture is released when clouds become heavy and form rain, snow, hail, etc.

Percolation Water soaks into the earth's surface.



Directions

1. Use the ideas below to create pictures representing the different parts of the water cycle.
2. Draw and cut out your own picture for each part of the water cycle.
3. Write the correct label on each piece.
4. Punch a hole in the top of each piece and attach a string to it.
5. Be sure to make the strings different lengths. For example, the sun is high in the sky so its string should be the shortest. The string used for percolation should be the longest.
6. Tie the strings to the hanger.
7. For an interesting effect, place the hanger near an overhead fan to show how everything in the cycle is always moving!



Habitat Visors

Habitats are places where plants and animals grow and live. All kinds of habitats exist in our area. These include ponds, forests, wetlands, parks, playgrounds and even your own backyards. Take a walk around one of these habitats and record your observations. Then make a habitat visor to record your experience!

Learning Goals

To learn about the kinds of plants and animals that live in a particular habitat.
To appreciate the importance of protecting our natural environment.

Background

It's interesting to learn about the plants and animals that live in a particular habitat. The animals and plants we see in our neighborhood will most likely be very different from those we find along a riverbank. In this activity, students will have an opportunity to experience an environment, record their observations and make visors to illustrate the features of a particular habitat.

Materials

- crayons, pens, markers
- long, thick rubber band
- paper punch
- thick paper or poster board
- scissors
- copies of "Habitat Observation Record" activity sheet
- copies of "Making a Habitat Visor" activity sheet

Activity

1. Discuss the concept of a habitat. A habitat is an environment where plants and animals grow and live. Make a list of various habitats.
2. Ask students to describe the plants and animals they might see in different types of habitats.
3. Emphasize how important it is to be very observant when walking through a habitat. Distribute copies of the "Habitat Observation Record" activity sheet. As a group, have students experience a habitat and record their observations. You may want to do this as a class outing or as a homework assignment.
4. Finally, let students apply their creative skills to make a habitat visor. Distribute copies of the "Making a Habitat Visor" activity sheet. When students have finished making their visors, have them explain how the visors describe their habitat experiences.

Extension

Have students repeat the activity within another habitat. Emphasize the need for protecting all our natural habitats so that we may enjoy them now and in the future.

WATERDROPS

Activity Number 6

Habitat Observation Record

As you walk through the habitat, use your eyes and ears to identify the wondrous sights and sounds in nature. Use the spaces below to list the things you see on your walk. You will need your list to make your habitat visor. Remember to walk slowly and quietly so you don't disturb the wildlife that surrounds you.

Do you see trees?

If so, what do they look like? _____

Do you see bushes, plants or flowers?

If so, what do they look like? _____

Do you see any large animals?

If so, list them. _____

Do you see any small animals?

If so, list them. _____

Are there birds in the area?

If so, describe them. _____

Do you see insects?

If so, list them. _____

Is there water in the area?

If so, what kind of water body is it? _____

What are some nonliving things in the area? _____

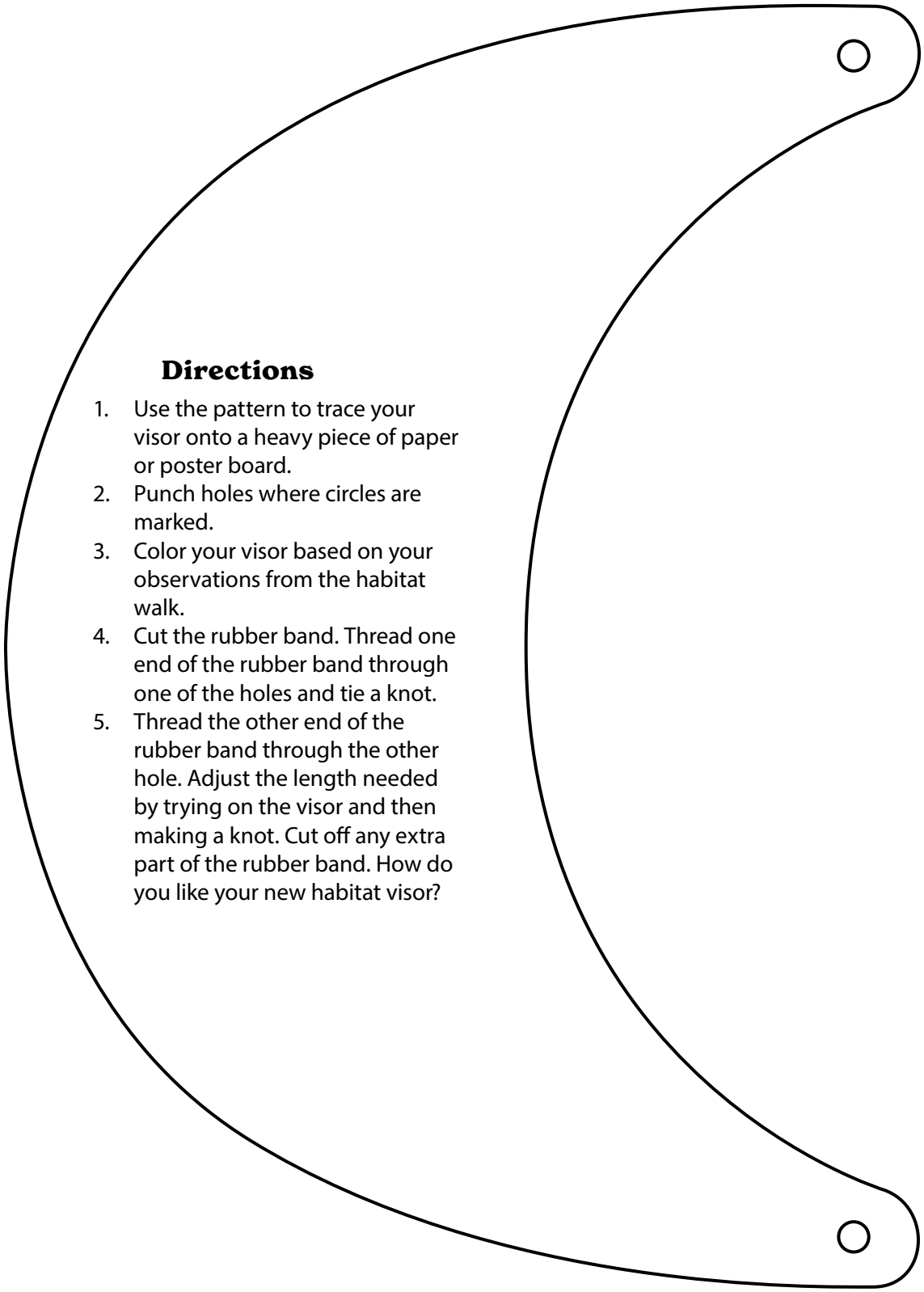
As you look at the habitat, what colors do you see? _____

When you return from your walk, we hope you will be ready to make a habitat visor.
It's a cool project and you can wear it on your next habitat walk!

WATERDROPS

Activity Number 6

Making a Habitat Visor



Directions

1. Use the pattern to trace your visor onto a heavy piece of paper or poster board.
2. Punch holes where circles are marked.
3. Color your visor based on your observations from the habitat walk.
4. Cut the rubber band. Thread one end of the rubber band through one of the holes and tie a knot.
5. Thread the other end of the rubber band through the other hole. Adjust the length needed by trying on the visor and then making a knot. Cut off any extra part of the rubber band. How do you like your new habitat visor?

This document complies with WCAG 2.2 AA standards

Moisture Monitor

It rains a lot in Florida. In fact, we get an average 53 inches of rain per year. Try this activity to determine how much it rains in one month.

Learning Goals

To understand the importance of weather in our daily lives.
To become aware of the connection between water and weather.

Background

Weather is very important to us. The experts who measure, study and predict weather are called *meteorologists*. In this activity, students will track weather conditions for one month and determine the amount of rainfall within that month.

Materials

- pencils, pens, crayons
- copies of "Moisture Monitor" activity sheet
- daily newspaper

Activity

1. Ask students to give several examples of different weather conditions.
2. Explain that they will be following the weather for a period of one month. Start the activity at the beginning of a month.
3. They will need to get information from newspapers, TV, radio and Internet weather sites.
4. Distribute copies of the "Moisture Monitor" activity sheet. Follow the directions on the sheet.
5. Complete the activity and discuss the results.

Extension

Ask students to continue their study at home and prepare a separate chart for each month.

Florida B.E.S.T. and State Academic Standards (3-5)
English Language Arts: ELA._.C.1, ELA._.C.2; Mathematics: MA.3.NSO.2, MA.3.M.1; Science: SC._.N.1.1, SC.3.N.1.3, SC.5.E.7.3, SC.5.E.7.4

WATERDROPS

Activity Number 7

Moisture Monitor

Directions

1. Prepare the calendar below for your monitoring activity. Write the name of the month above the calendar. Write the date of each day in the upper right corner of each square.
2. Each day, find out about the weather from various news sources.
3. Use symbols to describe the weather for each day and put them in the correct square. Record the high and low temperature for the day.
4. Determine how much rain fell and write that at the bottom of the correct square. For example, if it rained .2 inches, then write the following: Rain = .2
5. At the end of the month, add up all the numbers to see how much it rained.

Month

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

Caring About the Environment

Who cares about the environment? You do, that's who! This is your chance to explain why caring about the environment is important to all of us.

Learning Goals

To express opinions about the importance of a healthy environment.
To learn more about issues related to natural resources.

Background

Educators play a crucial role in encouraging students to develop a sense of stewardship toward the environment. To help in this effort, the Southwest Florida Water Management District (SWFWMD) offers Splash! School Grants of up to $3,000 per school for projects related to water resources education. In this activity, students will have an opportunity to write a letter to us at the SWFWMD and share their thoughts and opinions about the environment. If possible, send the letters to us as a class set. As a reward for your students' efforts, we will send you and your class a set of free prizes.

Materials

- pencil or pen
- crayons or markers
- copies of "Who Cares About the Environment? I Do!" activity sheet

Activity

1. Ask students to share their opinions about the importance of caring for our environment and natural resources. Ask if any of their families have volunteered in some kind of environmental cleanup.
2. Have students discuss how our region could change in the future if no one cares about protecting it. Discuss their predictions.
3. Additional topics that you may want to discuss with your students include the following:
   How does polluted water harm our wildlife and limit recreational activities?
   What happens to the environment when more people move into an area?
   Why is it important that people avoid wasting water in their homes and outdoors?
4. Distribute copies of the activity sheet. Have them write the date in the upper right corner. Students can work individually, in pairs or in small groups to write their letters.
5. After students complete the activity, be sure to send the letters to us!

Extension

Using the other side of their activity sheets, have students draw pictures to go with their letters.

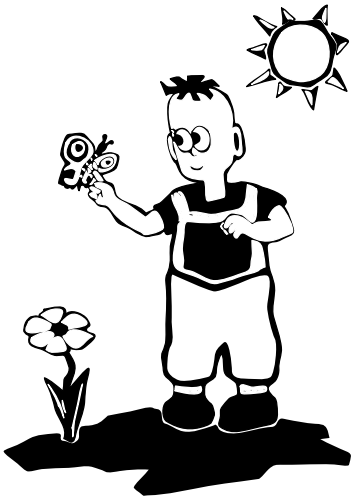
Florida B.E.S.T. and State Academic Standards (3-5)
English Language Arts: ELA._.C.1, ELA._.C.2, ELA._.C.5; Science: SC.4.E.6.3, SC.4.L.17.4; Visual Arts: VA._.H.3

WATERDROPS

Activity Number 8

Who Cares About the Environment? I Do!

Youth Education
Communications Department
Southwest Florida Water Management District
2379 Broad Street
Brooksville, FL 34604-6899



Dear Youth Education:

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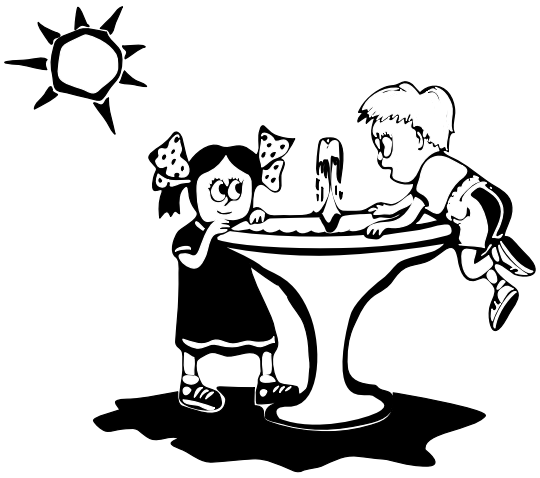
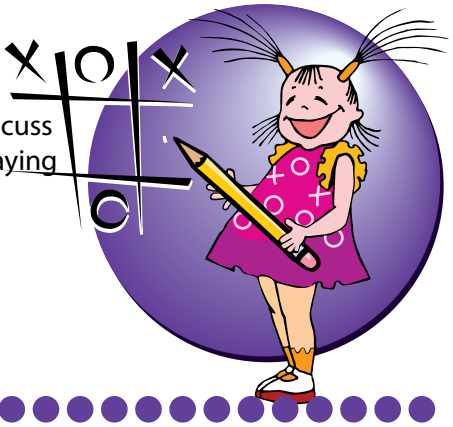


Sincerely,

Conservation Tic-Tac-Toe



It's easy to use less water. All it takes is a little effort on everyone's part. Discuss several ways to save water in your homes. Then check your memory by playing Conservation Tic-Tac-Toe with a partner!

Learning Goals

To increase awareness about the importance of water conservation.
To learn about several practical ways to save water at home.

Background

It is never too early for children to learn about the importance of saving water. There are many ways that we can save water in our homes, at school and just about anywhere else we use it. If all of us practice water-saving habits, we can help to make sure we have enough clean, safe water when these children become adults.

Materials

- scissors
- crayons
- copies of "Tips for Saving Water"
- copies of "Conservation Tic-Tac-Toe" activity sheet

Activity

1. Discuss the importance of water conservation. Have students describe several ways in which we use water every day. Use the list of "Tips for Saving Water" as a guide and ask students to describe easy ways to practice water conservation habits.
2. Distribute copies of the "Conservation Tic-Tac-Toe" activity sheet. Read the directions together and play the game.

Extension

Encourage students to take their games home and play with their families. Stress the importance of sharing information about saving water with friends and relatives.

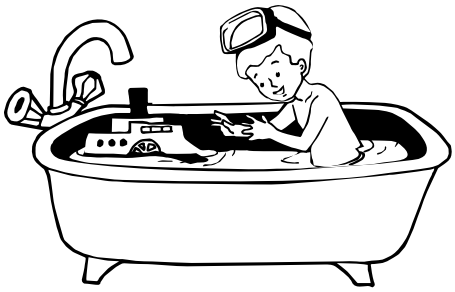
WATERDROPS

Activity Number 9

Tips for Saving Water

In the Kitchen

- Run the dishwasher only when it is full.
- Don't leave the faucet running.
- Fix any leaky pipes.

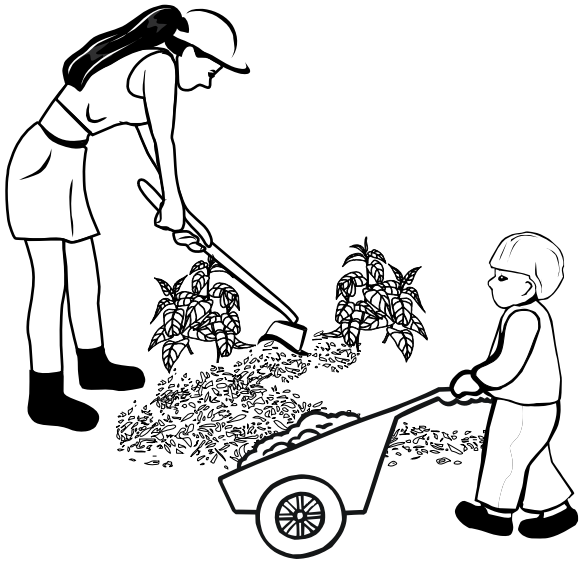


In the Bathroom

- Turn off the faucet while washing your face.
- Turn off the faucet while brushing your teeth.
- Take short showers.
- Take baths without using a lot of water.
- Don't flush bugs or litter down the toilet.
- Fix any leaky pipes.
- Install water-saving fixtures on faucets and toilet tanks.

In the Laundry Room

- Run the clothes washer only when it is full.
- Fix any leaky pipes.



Outdoors

- Avoid watering the lawn too much.
- Create landscapes that don't need a lot of water.
- Use environmentally friendly mulch around plants to hold moisture.
- Always use a hose with a nozzle on it.
- Sweep off driveways and sidewalks instead of hosing them.
- Follow your government watering rules.

WATERDROPS

Activity Number 9

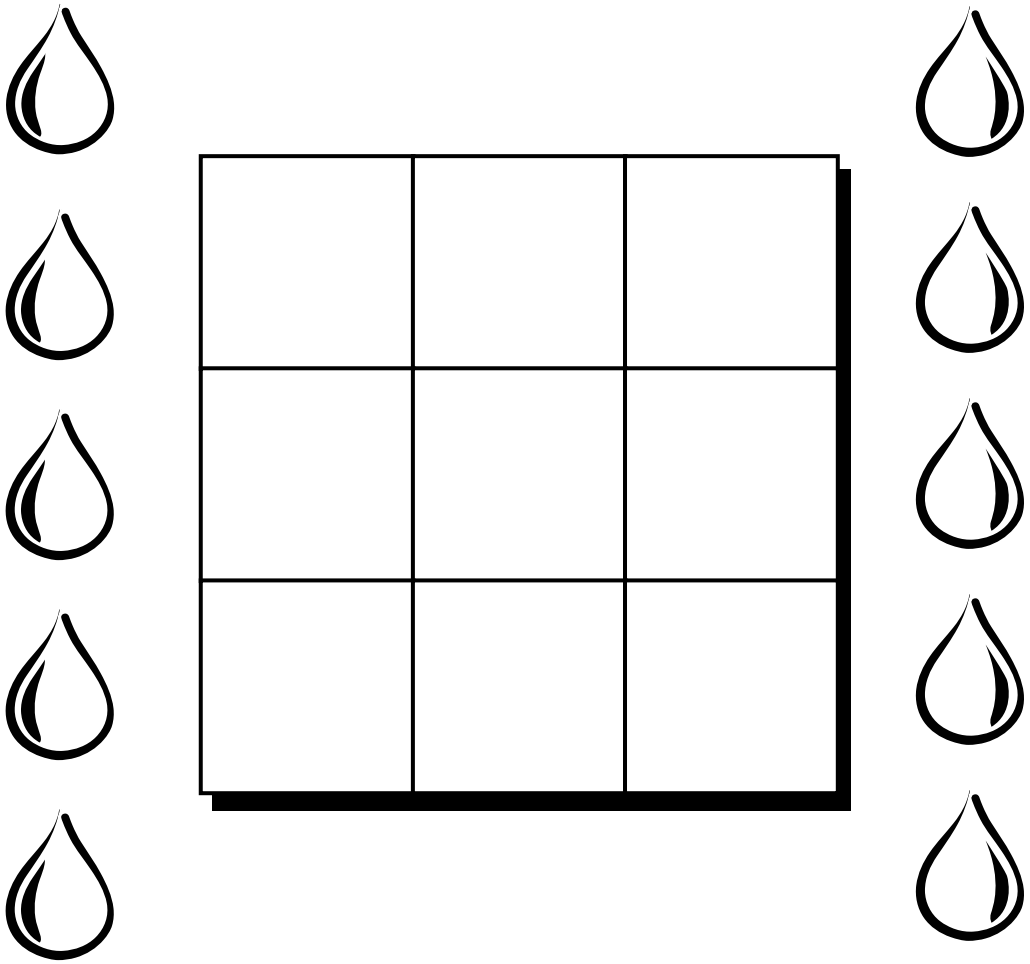
Conservation Tic-Tac-Toe

Directions:

1. Cut out the game board.
2. Color five of the droplets blue and five of the droplets green. Each color will represent a different player.
3. Cut out the droplets.
4. Player #1 begins by telling one way to save water. Then that player places a droplet in one of the squares on the game board.
5. Player #2 describes another way to save water and places a droplet on the game board.
6. Continue taking turns until a player has three of his or her pieces in a row, in a column or on a diagonal. That player then ends the game by saying "Conservation Tic-Tac-Toe."

Player 1

Player 2



This document complies with WCAG 2.2 AA standards

The Sweating Landscape

Do you think the trees and plants in your area can sweat? Try this easy experiment and find out!

Learning Goal

To develop an understanding of condensation and transpiration.

Background

Trees, shrubs and other plants give off water that moves back into our environment. This process is called *transpiration* and is part of the water cycle. Another activity called *condensation* also occurs within the water cycle. Condensation is when the water droplets in clouds become so heavy that the droplets fall. This easy experiment will help your students learn about these two aspects of the water cycle.

Materials

- clear plastic bottle
- assorted plants
- copies of "The Sweating Garden" activity sheet
- scissors
- water
- small pot
- water cycle poster (included)
- soil

Activity

1. Use the water cycle poster to show how water moves through our environment. Point to the area that shows water being given off from the trees. Then point to the clouds to show how moisture builds up until it becomes so heavy that it falls.
2. Distribute copies of the activity sheet.
3. Read the directions together and complete the experiment.
4. Study the garden each day and discuss any changes that may have occurred.

Extension

Have students describe what caused moisture to form on the sides of the plastic bottle. Leaves from plants and flowers "sweat," or give off moisture that eventually builds up on the sides of the bottle.

Florida B.E.S.T. and State Academic Standards (3-5)

English Language Arts: ELA._.C.2, ELA._.C.5; Mathematics: MA.K12.MTR.2.1; Science: SC.3.P.9.1, SC.5.E.7.1

WATERDROPS

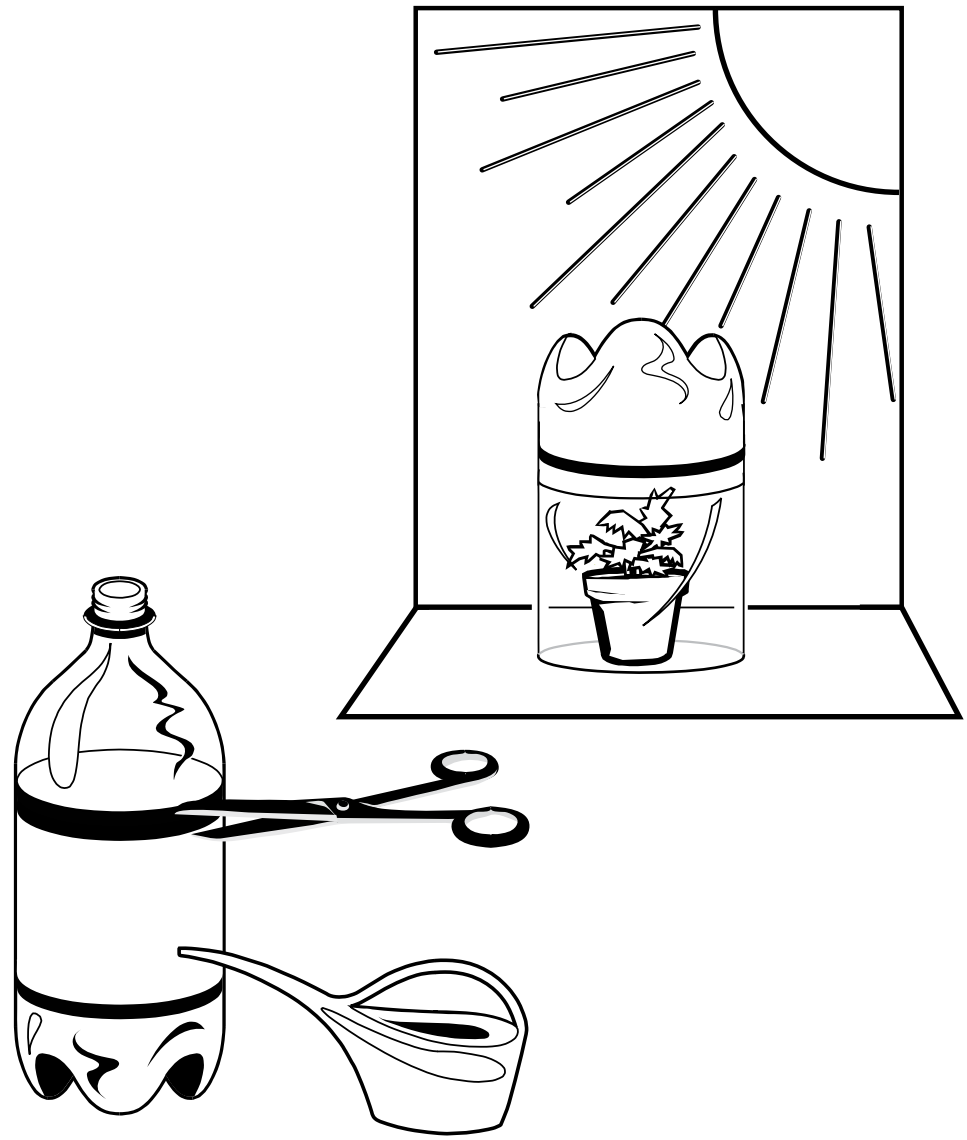
Activity Number 10

The Sweating Garden

Try the experiment below and you are sure to see a sweating garden. After you finish, explain what is really happening under the bottle.

Directions

1. Cut off the top section of the plastic bottle. (See illustration.)
2. Prepare a garden by filling a small pot with soil and assorted plants. Water the garden.
3. Set the potted garden in a sunny location.
4. Cover it with the bottom section of the bottle.
5. Check on your garden every day. See how long it takes for the garden to begin sweating.



Environmental Postcard Pals

Do your friends know how important it is to protect our environment and natural resources? Select a postcard pal and trade a few facts about the environment. It's easy and fun!

Learning Goal

To communicate important messages about water resources and our environment.

Background

Environmental issues are important. In this activity, students will have an opportunity to perform research using newspapers, magazines and the Internet to create a series of environmental postcards they can trade with a pal.

Materials

- pencils
- scissors
- crayons
- glue
- index cards or heavy paper
- pictures from newspapers and magazines
- copies of "Making a Series of Environmental Postcards" activity sheet

Activity

1. Distribute copies of the activity sheet.
2. Assign pairs of classmates who can trade postcards for the next month or so.
3. Have students use various research materials and sources to find interesting facts about water resources and our environment.
4. With index cards or heavy paper, have students create a series of postcards using the model on the activity sheet. Have them decorate the front of their cards with pictures from newspapers and magazines.
5. Encourage students to actually trade postcards with their pals.

Extension

Team up with another class at school and trade environmental postcards.

Florida B.E.S.T. and State Academic Standards (3-5)

English Language Arts: ELA._.C.1, ELA._.C.2, ELA._.C.5; Science: SC.4.E.6.3, SC.4.L.17.4; Visual Arts: VA._.H.3

WATERDROPS

Activity Number 11

Making a Series of Environmental Postcards

This is your opportunity to exchange information about the environment. After you have discovered a few facts, make up questions to give to your postcard pal. Be sure to include the answer to each question too. Hopefully, your pal will have some postcards for you with some interesting facts on them. You may want to challenge each other to find the most unusual facts about our environment.

Use the illustration below to help you get started. Don't forget to decorate the front of your card. Cut out pictures or draw a few of your own that make us think about the environment. Be creative!

Water Chalk Graffiti

Have you ever noticed how many pictures and paintings include scenes with water? Artists often use ponds, lakes, rivers and other water bodies in their works. Poems and messages can be placed on a background of a water scene. Using water and chalk, you can create a masterpiece of your own!

Learning Goals

To appreciate the beauty of our natural resources.
To create meaningful poems and messages about water.

Background

Try to gather several pictures from art books, magazines and other materials that show scenes with water. Use the pictures to brainstorm with your students about how short poems or messages could be written to go with the pictures. Then let your students extend their creative skills by drawing one of the pictures on pavement and including a poem or message to go with it.

Materials

- pavement
- colored chalk
- copies of "Water Chalk Graffiti Planning Guide" activity page
- watering can with water

Activity

1. Study the water scene pictures that have been gathered.
2. Create one large picture as a class or create several pictures by working in small groups or pairs.
3. Have students complete the "Water Chalk Graffiti Planning Guide" activity sheet.
4. Locate a large concrete surface for the chalk pictures.
5. Begin by having students draw the picture using chalk. Then have students use water to smear some of the colors to create a watercolor effect. Be sure to allow time for drying so the colors can settle.
6. Finally, using black chalk, have students copy their poem or message on top of the background scene.

Extension

You may want to make this a contest by organizing teams. Each team can be responsible for creating the poem or message and picture. Ask each team to describe their water chalk graffiti to the rest of the class. Then have students vote on their favorite picture.

WATERDROPS

Activity Number 12

Water Chalk Graffiti Planning Guide

Describe which picture you plan to create on concrete.

_____

_____

_____

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_____

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_____

Draw a simple sketch of the picture in the box below. Decide what things to include in your picture and where you plan to place them.

Are you going to include a message or a poem?

If you are going to write a message, what are some possible choices? Use the area below for brainstorming.

_____

_____

_____

_____

_____

If you plan to create a poem, use the back of this sheet for developing it.