



CHILDREN'S  
MUSEUM  
— OF VIRGINIA —  
PORTSMOUTH

## Pre and Post-Visit Activities

### Water, Water Everywhere

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# Important Information for Teachers

Thank you for choosing Water, Water Everywhere for your students! This program will cover the following aspects of your SOL's:

- 3.9 The student will investigate and understand the water cycle and its relationship to life on Earth. Key concepts include
- a) there are many sources of water on Earth;
  - b) the energy from the sun drives the water cycle;
  - c) the water cycle involves several processes;
  - d) water is essential for living things; and
  - e) water on Earth is limited and needs to be conserved.
- 4.9 The student will investigate and understand important Virginia natural resources. Key concepts include
- a) watersheds and water resources;

## Museum Manners

**Please review with students and chaperones prior to your visit to the museum.**

1. Please plan to arrive 15 minutes before your scheduled time to allow final counts and payment prior to your visit.
2. Remember to use walking feet.
3. Remember to use inside voices.
4. Teachers and chaperones must stay and explore with their students at all times throughout the museum.
5. Remember to share the exhibits and place items back where you found them.
6. Food and drink are not permitted in the museum.

# Key Terms

**Water:** a clear liquid compound of hydrogen and oxygen that is essential for life.

**Earth:** the planet made up of 71% water that is inhabited by animals, plants and other life.

**Evaporation:** the process where water heats and turns into a gas known as water vapor.

**Condensation:** the process where the gas cools and turns back into a liquid.

**Precipitation:** Water or snow falling from the cloud as condensation becomes too heavy.

**Pollution:** Dirt, smoke and other gases that dirty the air and have water droplets connect to it.

**Conservation:** The process of saving energy.

**Cycle:** A full circle of events that occur again and again.

**Living Organism-** anything that can breathe, move, grow, adapt to its environment, respond to stimuli, reproduce, metabolize, has an organized structure of cells, and requires energy.

**Cell:** smallest unit of life.

**Energy:** used to fuel changes in a cycle.

**Sun:** The origin of energy that drives the water cycle.

**Environment:** the conditions that surround someone or something.

**Gas-** type of matter that will completely fill any closed container and assume the volume of its container because the molecules are constantly moving.

**Liquid-** has a definite volume and takes the shape of the container.

**Solid-** has a defined shape and volume.

**Source:** The beginning of a large gathering of water.

# Pre-Visit Activities

Try these activities before you visit the museum.

## Activity 1: Water in the Seasons

Objective: Students will be able to understand how water changes and is affected by each season. SOL 3.9b, c, d, e

Materials: Magazines, glue, coloring utensils, scissors, large sheet of paper.

Investigations: Students will make a collage using images and drawings about different seasons. They will divide the collage into four seasons and place descriptive water images in each season. Suggest finding weather events such as hurricanes and blizzards, images of the sun affecting drought, and how we utilize the water in certain seasons.

## Activity 2: Review Vocabulary

Objective: Student will be able to review and understand the key terms used in the program and by the Virginia Standards of Learning.

Materials: Word Search on following page, pencil

Investigation/Practice: Students will review the terms in the puzzle and state the definitions of the terms as they find them.



# Post-Visit Activities

Try these activities after you visit the museum.

## Activity 1: Water Cycle in a Bottle

Objective: Students will be able to observe water cycle changes in an enclosed bottle and utilize the scientific method to understand evaporation and condensation. SOL 3.9c

Materials: soda bottle, sand, water, rocks, small plant seeds, a window, observation paper and a pencil.

Investigation: Cut the plastic soda bottle in half. Fill the bottom with a layer of rocks, dirt, and some seeds for small plants and then saturate with water. Invert the bottle top into the bottom with the cap open and secure with some tape. Place the bottle near a sunny window and observe the bottle several times during the day for at least a week.

## Activity 2: Graph Your Journey as a Water Droplet

Objective: Students will be able to understand what changes water goes through in the water cycle.

Materials: Paper strip from the “Journey of a Water Droplet” game played in the program, markers, unlabelled image of the water cycle (page 7.)

Investigation: Using the colors on the paper strip, draw arrows on the water cycle to indicate the journey the water droplet took (I.E. it traveled from the ocean to the clouds, so draw an arrow from the ocean to clouds then identify what part of the water cycle process that is). Discuss how many changes it went through and whether you think this is common. Further investigation can include class-wide graphing of how many changes and/or what changes occurred.

## Activity 3: Know Your Watershed

Objective: Students will be able to understand where our watershed address is and what sources of water flow into it. SOL 3.9a, 4.9a

Materials: Computer, unlabelled physical map of Virginia attached at the end of the packet (Page 8), Markers.

Investigation: Look up information on what makes a watershed and label Virginia watersheds. Label your blank map with all the major water resources such as rivers that flow into our watershed and include geographical features that may use the water cycle to help these sources.



### WATER, WATER, EVERYWHERE

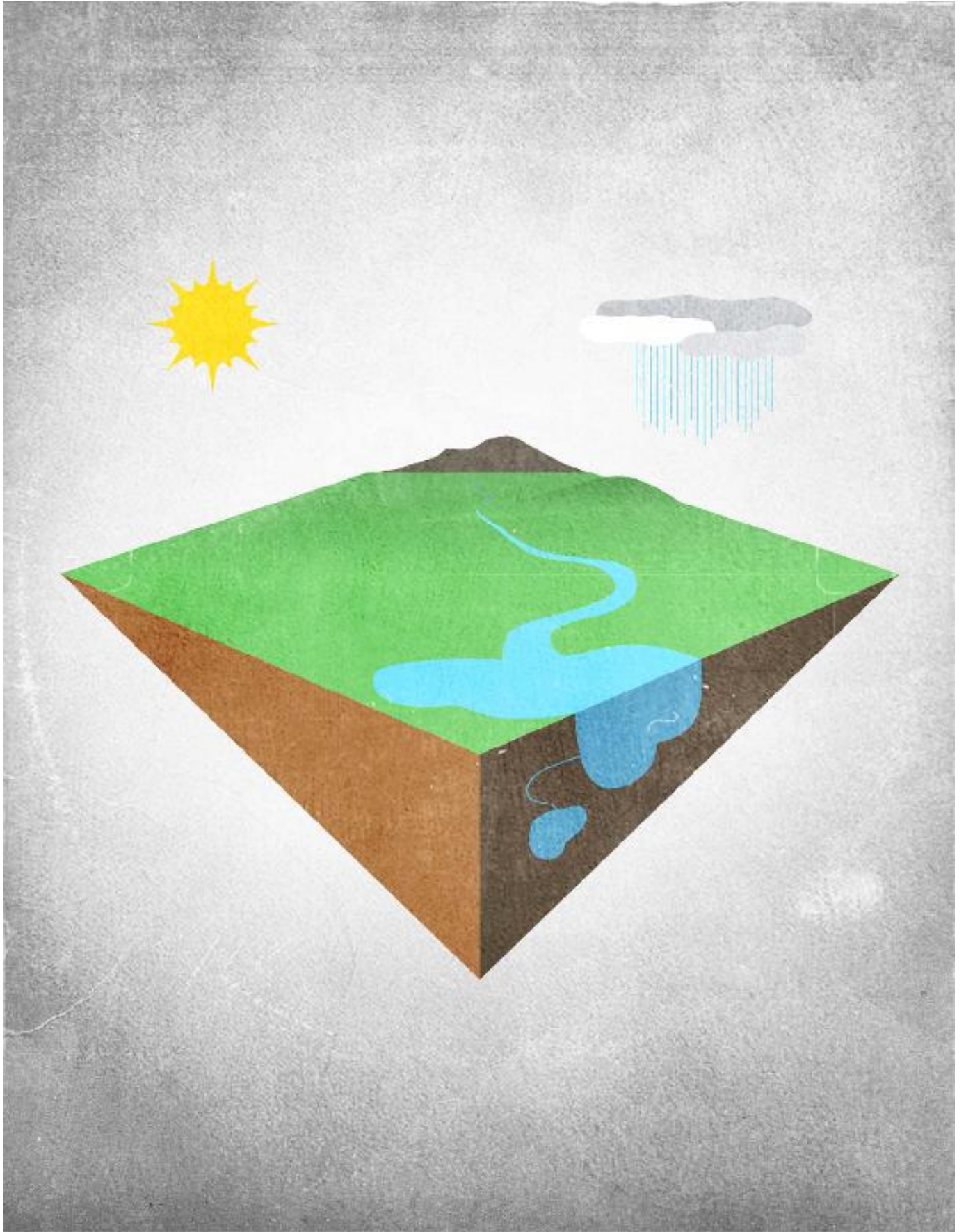
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 V D G T D L S U N R L E E E A E S E U E  
 K Y O T F W V V F U O W C M K N M L Y Q  
 R C V W X E A R T H S B G N X S A C S R  
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**CONDENSATION**  
**CONSERVATION**  
**CYCLE**  
**EARTH**  
**ENERGY**  
**ENVIRONMENT**  
**EVAPORATION**  
**LIVING CELL**

**LIQUID**  
**POLLUTION**  
**PRECIPITATION**  
**SOLID**  
**SOURCE**  
**SUN**  
**WATER**



# *Physical Map of Virginia*

