



Grade Level: 4-6

Theme:

- The artist in his or her environment.

Curriculum Emphasis:

- Physical Science
- The Arts

Benchmarks:

- Describe objects according to their physical properties.
- Understand fundamental forces, and effects on motion.
- Identify substances as they exist in different states of matter.
- Identify changes in states of matter seen in the environment.

Objectives:

- Identify ways in which the environment has influenced Jack McLarty's artwork.
- Recognize the importance of water to life on earth.
- Define the processes involved in the water cycle.

Materials:

- 4" x 4" sheets of white paper
- Butcher paper
- Colored pencils
- Felt markers

THE WATER CYCLE

Jack McLarty

ACTIVITIES

Part A – Discovering the Water Cycle (50 minutes)

The first lesson will be an online discovery of the water cycle to be completed before viewing the Jack McLarty video. Students will need access to a computer lab to do a Water Cycle Activity. It would be helpful to have the following website bookmarked on the computers in the computer lab prior to the first lesson:

<http://www.dnr.state.wi.us/org/caer/ce/eek/earth/groundwater/watercycle.htm>

1. On a piece of butcher paper in front of the class, record student responses to the following question: What do living organisms need to survive? After brainstorming the survival list, ask students which items from the list they think are the most important. Focus on water as the element needed by all life forms. Consider the following questions:

- Where does our drinking water come from?
- Do we have plenty of water to drink?
- Will we always have plenty of water?
- Where can we find water on the earth?
- Can we drink water from all of these sources?

2. Then consider the following questions about the water cycle:

- Where does rain come from?
- How does the rain get up into the clouds?
- Where does the rain go after a shower?
- What questions do students have about water?

3. Brainstorm a few ideas, then go to the computer lab and ask students to click on different parts of the water cycle, then take the Water Quiz by clicking on the link to the right of the Water Cycle.

PART B – Images of Water in Art (50-60 minutes)

1. On a piece of butcher paper in front of the class, record student responses to the following questions:

- How do people use water everyday around the world?
- What do you think is the most important factor that people considered when they were first deciding where to settle and live? (water!)

Discuss how areas of the world are more populated around regions with plentiful water. Give examples of regions less populated (Sahara Desert) and more populated (Nile River in Egypt = 95% of Egypt's population is near the river.) Also discuss local population distribution. Point out that both Salem and Portland, Oregon are centered around the Willamette River.

VOCABULARY

solid
liquid
humidity
gas
evaporation
water table
transpiration
condensation
precipitation
infiltration
evapotranspiration
ground water
collage
runoff

(Continued on next page)

ACTIVITIES CONTINUED

2. Briefly discuss Jack McLarty and his artwork.

3. View the video and ask the students to write down any time they see water in the video (lakes, rivers, etc.) They will also write down any time they see images related to water (fish, birds, boats, etc.) These can be real images of water (Lake Chapala) or artwork/images that represent water (the river in the City Hall artwork created by Jack McLarty).

4. As time allows, discuss students' observations from the video notes. Collect the video notes and keep for the next lesson.

PART C – *Water and Us!* Class Collage (60-90 minutes)

Introduce the class collage project.

1. Pass out students' video notes collected at the end of lesson. Review students' notes as a class. Consider the following questions:

- Why do you think Jack McLarty included images of water in his artwork?
- In what ways is water important to life?

2. Show image of Jack McLarty's City Hall mural. Jack McLarty's City Hall mural is somewhat of a collage of images of life in Portland, both past and present. A collage is a composition of several different images pasted or glued over a surface. What is the central image of Jack McLarty's City Hall mural? (the river)

3. Today our class will begin to create our own collage all about water. This collage will display our knowledge of the water cycle and the importance of water to life on earth Every student will create and contribute artwork to our class collage. Discuss students' responsibility to create images for the class collage, *Water and Us!*

4. Go over the following directions:

- Students will be assigned to groups and given one of the following Ways We Use Water assignments: Personal Use (brushing teeth, showering), Recreation (swimming, boating), or Other (watering plants, hydroelectric power).
- Then each student will create a piece of artwork based on his or her assignment. Give students additional examples of Ways We Use Water as necessary.

5. Pass out the 4" x 4" pieces of white paper to the students in each group.

6. Ask students to create their artwork by drawing in "whisper" (erasable) lines in pencil, then coloring with colored pencils and outlining with fine-tipped black felt marker. Each student should write a title somewhere on the illustration (such as "Brushing my teeth").

7. Assemble finished artwork into a class collage.

EVALUATION

- Successful completion the online Water Quiz
- Completion of the video notes
- Working collaboratively in assigned groups
- Participation in class discussions
- Completion of *Water and Us!* collage assignment

EXTENSIONS/ADAPTATIONS

- Write to address questions about water, such as, "How does water impact my life?"
- "Make a prediction about what will happen with the earth's water in the future, and how people might positively or negatively affect those changes."
- Design a model of the water cycle.
- Create a hypothesis related to water or the water cycle, such as, "Does heat affect the rate of evaporation?" and prove it with a scientific experiment.

RESOURCES

Environmental Education for Kids: Round and Round It Goes: The Water Cycle.
<http://www.dnr.state.wi.us/org/caer/ce/eek/earth/groundwater/watercycle.htm>

The Five Processes of the Hydrologic Cycle. <http://observe.arc.nasa.gov/nasa/earth/hydrocycle/hydro3.html>

Droplet and the Water Cycle Game. <http://kids.earth.nasa.gov/droplet.html>

bbc.co.uk: Animated Water Cycle:
http://www.bbc.co.uk/schools/riversandcoasts/water_cycle/rivers/pg_02_flash.shtml

The Water Cycle. <http://www.units.muohio.edu/dragonfly/water/watercycle.shtml>

Drinking Water and Ground Water Kid's Stuff. http://www.epa.gov/region01/students/pdfs/ww_disap.pdf

Cole, Joanna. The Magic School Bus. *Wet All Over: A Book About the Water Cycle*. Copyright 1996. Scholastic Inc., USA.

