Drop Pass

Grades: K - 2

Time Allotments:

Teacher preparation: 10 minutes
Lesson and activity: 30 minutes
Closure to activity: 30 minutes

Content Objectives: **After performing this activity students will be able to:**

1) Identify components of the water cycle;
2) Describe the movement of water in the water cycle; and
3) Describe how drinking water enters residences and how dirty water exits them.

Process Objectives: **Students will:**

1) Perform movements in an applied setting in response to direction;
2) Participate in group discussion;
3) Respond to questions from teacher; and
4) Talk about an idea or work sample in front of the class.

Curricular Areas and Corresponding Core Curriculum Content Standards:

Social Studies:	**6.6** (G2) E1
Science:	**5.10** (G2) A1 & B1
	5.9 (G2) A1
	5.8 (G2) B1-2
Language Arts Literacy:	**3.4** (G1) A1 & B2 (G2) A3 & B1
	3.3 (G2) A1-4, D3
Comprehensive Health And Physical Education:	**2.5** (G2) A1, 5 & 8

Vocabulary:

Evaporation
Precipitation
Water Cycle

Materials Needed:

For each group of four students:

- Stuffed sock balls

For teacher's presentation:

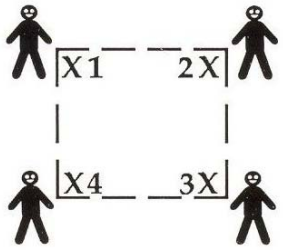
- Yard/meter stick
- Masking and scotch tape or Fun-tac
- Chalkboard and chalk or flipchart paper and markers
- Magazines (that can be cut up)
- Scissors (one pair per student)

Anticipatory Set:

- Ask students: “What do you think about puddles? Where and when are puddles usually seen?”
- Ask them to describe what causes a puddle to form. “Where does the water come from? Why doesn’t the water go into the ground?”
- Ask them to describe why puddles disappear. “Where does the water go?”
- Explain to them that puddles are part of a much larger ongoing movement of water that occurs between the earth’s surface and sky, called the “water cycle.” During this activity they are going to work in groups of four to act out the water cycle.

Guided and Independent Practice:

- Create an open playing area in front of the class. Use masking tape to mark four "X's" on the floor, representing comers of a square with 5 - 6' edges.
- Select four students from the class as volunteers for a demonstration. Have each of them stand on one of the "Xs" and face the center of the square. Assign each student a number using the diagram below:



- The four students should act out this process with guidance from the teacher.
- Give the student in **position #1** the stuffed sock. The student places it between his/her feet and states: "*I am a cloud sending rain to the earth.*" This student then makes a motion with his/her hands, imitating rain. He/she then gently tosses the stuffed sock to the student in position #2;
- Student in **position #2** places the sock between his/her feet and states: "*I am the land that catches rain and creates rivers.*" This student should then spread their arms to imitate the land catching the raindrops. The sock is then gently tossed to the student in position #3;
- Student in **position #3** places the sock between his/her feet and states: "*I am a river that carries water to the ocean.*" This student can use his/her arms to imitate a river, winding and flowing. The sock is then gently tossed to the student in position #4; and
- Student in **position #4** places the sock between his/her feet and states*: "I am the ocean that holds water until it returns to the sky*." This final student can make a rippling motion with his/her arms then grandly throw them upwards. The sock is then returned to the student in position #1 and the water cycle is completed.
- This group of four can repeat the scenario with the teacher until words and motions are recalled by heart. Or, other groups of students can be created and placed around the classroom and the water cycle can be rehearsed in unison with the teacher. If time allows, students could be asked to pick up the pace in order to complete the water cycle in less time.

Closure:

- Using the four water cycle components in the activity (cloud, land, river and ocean), draw a diagram of the water cycle on a chalkboard or flipchart paper.
- Ask students to identify additions to the diagram, such as other water bodies or places where water can usually be found (i.e., stream, wetlands, ditches, bay, pool, puddle, etc. Ask them to describe how drinking water gets into their home's faucet and how dirty water is dealt with when it leaves their home, such as from a toilet or tub.
- Have the students look through magazines and cut out pictures that depict water bodies, ways that water moves or ways that water is used or enjoyed by people. Have them tape the pictures onto the chalkboard or flipchart paper in an appropriate location on the diagram.
- When finished, point to each picture and ask students to verbally describe how the picture fits in with the rest of the water cycle. (For example, for a picture of a birdbath, the student could explain that its water comes from a hose or from rain and that birds then drink it or the water evaporates into the sky)
- Summarize the movement of water in the water cycle beginning with the basic four components then adding references to the pictures that were added.

Assessment:

- Participation in group activity;
- Responses to questions from teacher;
- Selection of picture(s) for the water cycle diagram; and
- Response(s) to teacher that link the picture with the water cycle diagram.

Extensions:

- With younger students, pictures of clouds, land, a river and the ocean can be mounted on cardboard and strung with yarn. These can be placed around the student's necks to remind the group of assigned roles in the game. Also, the activity can be conducted outdoors on a field or playground. Consider expanding the water cycle activity to include more steps and actions, such as ground water, a stream, a bay, etc. Finally, consider using water balloons or foam balls instead of stuffed socks, if outside.
- Have students write, tell or act out a short story about them being a single drop of water traveling in the water cycle – the story should explain their imagined travels.
- Locate the following book to read to the students as follow-up to this lesson:
  Robinson, Fay. ***Where Do Puddles Go?*** Rookie Read-About Science; Childrens Press; Chicago, Ill. 1995.

Source:

- ***Beneath the Shell…A Teacher's Guide to Nonpoint Source Pollution and Its Potential Impact on New Jersey Shellfish***. New Jersey Department of Environmental Protection. First Printing 1991; Revised 1993; Reprinted annually from 1997 – 2002 and 2004; adapted from "Drop Pass"(pgs. 14 - 15).