

**ED 101 Educational Technology Lab – Fall 2012
Boston University – School of Education**

LESSON PLAN

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Lab Section: B1

Grade(s)	3
Content Area(s)	Science
Topic of Lesson	An overview of the water cycle, including all its five steps: evaporation, condensation, precipitation, run-off, and percolation
Three Objectives	<ol style="list-style-type: none"> 1. Students will be able to label with correct spelling all five steps (evaporation, condensation, precipitation, run-off, and percolation) of the water cycle in order when given a blank diagram depicting all the parts of the water cycle. 2. Students will be able to explain in detail the process that is taking place of at least three of the five steps (evaporation, condensation, precipitation, run-off, and percolation) of the water cycle on a blank sheet of paper in at least three complete, written sentences for each step. Make sure students use terms we have encountered in class (water vapor, liquid to gas state, etc.) 3. Students will be able to individually orally explain their cooperating teacher when prompted at least three facts about water that have been mentioned in class. For example, the earth is covered with 2/3 water, the water cycle can be started at any stage, and water can be changed into three forms of matter.
Technology standard	<p><i>Standard 1. Demonstrate proficiency in the use of computers and applications, as well as an understanding of the concepts underlying hardware, software, and connectivity.</i></p> <p>Exploratory Skills and Expectations: Internet, Networking, and Online Communication</p> <p>G 3-5: 1.14 Explain and use age-appropriate online tools and resources (e.g., tutorial, assessment, Web browser).</p>
Curriculum Framework	<ul style="list-style-type: none"> ➤ Massachusetts Science and Technology/Engineering Learning Standards ➤ Earth and Space Science, Grades 3-5 ➤ The Water Cycle

	<p>1. Describe how water on earth cycles in different forms and in different locations, including underground and in the atmosphere.</p>
<p>Materials needed</p>	<ol style="list-style-type: none"> 1. One computer with Internet Access 2. An LCD projector, so as to show the website so the whole class can see 3. A diagram of the water cycle, with all its parts unlabelled 4. Blank sheets of paper 5. Writing utensils
<p>Lesson Introduction (5 minutes)</p>	<p>I will introduce the lesson by asking the students why they believe water is important and how they see water being used in their daily lives. Then, I will pull up my website using the LCD projector to the homepage and introduce them to a character I created using BitStrips, one who is simply curious about how water is everywhere and is eager to learn about the water cycle and its role in our world.</p>
<p>Lesson Procedure, Web Site Use, and Technology Standard Instruction (15 minutes)</p>	<p>After introducing my lesson as stated above, I intend to show the students, seated in the groups that my cooperating teacher has assigned them to, how to navigate my website. Since they will have not been introduced to the water cycle by the teacher in this first semester of learning, the major focus of the lesson will be on the website. It will simply serve as an introduction to what the students will be learning in the second semester of school with their teacher.</p> <p>I will pass around a paper with the URL of the website and hand it to each student, explaining to them how to type the web address into the search bar so they would know how to access the website at home. I will also explain to them what a URL is and how to navigate the menu on my website.</p> <p>I will then go on to explain to the students how to navigate my website, indicating that each topic concerning the water cycle can be found on the top row.</p> <p>Acknowledging the students' answers to my questions during the lesson introduction, I will add on to their list by telling them more about how water is important and why we use it our daily lives.</p> <p>I will then go on to show them a quick Animoto video I created in which all parts of the water cycle are listed. After the video, I will give a concise definition about each of the steps in the water cycle.</p> <p>After doing so, I will ask students questions about the steps of the water cycle. For example, what is the correct order of all the steps in the water cycle? What happens during condensation? Why does the water cycle exist?</p> <p>Then, I will show the students a link on my website to an interactive video</p>

	<p>of the water cycle, suggesting that they take the opportunity to go play around with it home. It will serve to give them not only a visual representation of the water cycle, but also give them the chance to be involved in each step by clicking on whichever step they would like to see in action.</p>
<p>Wrap-Up of Lesson (5 minutes)</p>	<p>At the end of the lesson, I will ask the students to get together with the people at their group tables and share with each other one thing they learned about the water cycle. Then, I will call on a few students to ask them about what they have learned. After that, I will ask them if they have any questions and I will answer them.</p>
<p>How will students be assessed to make sure they are able to perform the objectives?</p>	<p><u>Objective 1:</u> Students will be able to with correct spelling label all five steps (evaporation, condensation, precipitation, run-off, and percolation) of the water cycle in order when given a blank diagram depicting all the parts of the water cycle.</p> <p><u>Assessment 1:</u> We will go over all parts of the water cycle in class, using the website I created on the water cycle. By the end of the lesson, I will hand out a diagram of the water cycle with all its parts unlabeled to each student. They will be given 5 minutes to fill out all the steps of the water cycle where indicated.</p> <p><u>Objective 2:</u> Students will be able to explain in detail the process that is taking place of at least three of the five steps (evaporation, condensation, precipitation, run-off, and percolation) of the water cycle on a blank sheet of paper in at least three complete, written sentences for each step. Make sure students use terms we have encountered in class (water vapor, liquid to gas state, etc.)</p> <p><u>Assessment 2:</u> This assignment will be given after the students have had time to further explore the website and learn more about the water cycle at home. After three days, students should have had enough time to go over the definitions for the steps of the water cycle, thus they will be able to explain in detail at least three out of the five steps of the water cycle on a blank sheet of paper.</p> <p><u>Objective 3:</u> Students will be able to individually tell their cooperating teacher when prompted at least three facts about water that have been mentioned in class.</p> <p><u>Assessment 3:</u> This assignment will be completed after I go over with the students (building on their answers on why water is important) certain facts about water. After reviewing with the students a little bit more about the facts in class by asking them questions, I will call them up individually to my desk and have them tell me at least three facts about water that have been part of our discussion.</p>

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