

projectgreenchallenge

pgc
2013

CURRICULUM

LESSON PLANS
FOR A
conscious
lifestyle

WATER

Introduction

Water is consumed in many aspects of our lives: clothing, cars, food, and hygiene, just to name a few. Because we use so much of this resource, conserving it may seem like an unbearable task. But what if I told you that each person in America utilizes about 100 gallons of water per day? This becomes even more worrisome when we consider the fact that only 2.5% of the water on earth is fresh and available for use. Of that freshwater, 70% is frozen in polar ice caps and 30% lies underground, leaving less than 1% of the world's fresh water for human consumption! Which triggers the question of how much we actually have left to consume.

According to recent research, our supply of water is decreasing sharply, and it is time we do something to conserve it.

In this lesson, we will learn about the many places in our lives that involve water, and what we can do start making a difference and conserve this crucial resource.

Resources

- *Pinterest Board*
 - *Project Green Challenge Resources*
 - *Pre water lesson facts for powerpoint*
 - *Info graphics for activity 2:*
 - *Other*
 - *Water Rich Vs. Water Poor*
 - *Food/Ag*
 - *Levi's Interactive for Activity 3*
 - *Bottled water information*
 - *Article for activity 4*
- Videos**
- *After Activity 1 exercise*
 - *Story of Stuff: Bottled Water*
 - *emirates crisis*

Objectives

In today's lesson, students will:

- Learn how the amount of water consumed per day comes to 100 gallons
- Calculate your own water footprint
- Map the different companies working to create a difference
- Innovate new ideas of how we can reduce the water footprint
- Learn more about the bottled water conspiracy and what you can do to help
- Develop a creative idea to make a difference

Materials Needed

- Computers/Projector
- PowerPoint game (included)
- Poster paper and markers

Lesson Plan

Start of Class: 3 minutes

At the start of class, students will play the PowerPoint game, where they will learn about the amount of water consumed per day by answering a series of multiple choice question to see how much they know already. Once the students learn about the series of issues involved with our water consumption, they will begin to wonder what they can do to initiate change.

Where are we going wrong?: 10-20 minutes

Ask students to use their own computer and log onto the following website: [your-daily-dose-of-water](#). If there is not a computer for every student ask them take turns or select a student volunteer to run through the assessment while it is projected on the screen or a Smartboard. While the students run through the interactive activity, ask them to write down 5 facts they learned throughout the activity. After they are finished, ask a couple volunteers to share their footprint count, and some of the facts that they learned in the activity.

Transition

Watch this [video](#) to see where water consumption in Barcelona is headed towards, and their progress in safe water consumption. Have a short discussion afterwards.

Where is all this water going?: 15 minutes

Split the class into 3 groups: Nations, Food/Agriculture, and other. Select a group leader and give everyone in the designated group their designated infographic (see resources). Have the group study the infographics and after thorough discussion ask the group leader to share their interesting information with the class when everyone is finished reading. Discuss the effects of these three topics as a group and share ways you can reduce your footprint. Ask the class to suggest some ways they can change their daily habits in order to consume less water.

Math Activity: 10 minutes

Using some of the suggestions to reduce water consumption from the previous activity, have each students select one strategy and calculate the effects of that change over time. Have them calculate both the water savings of one year and ten years.

Transition

story-of-bottled-water

Have students watch the video and have a 5-10 minute discussion about their ideas on bottled water consumption.

Back to the tap: 30-40 mins

Ask students to read the following article in groups of four: [BanningTheBottleOnCampus](#). After they have fully read and discussed the article as a group, ask them to obtain a sheet of poster paper, and construct an advertisement that they can post in the school to promote the use of reusable water bottles. Finally, have all the groups go around the school to post their advertisements. More than one poster can be made per group!

To end this activity, brainstorm an event you can hold on campus, to reduce the amount of plastic water bottles on campus. It can be anything from a PSA to a water bottle campaign. Be creative and get everyone involved to help bring a project like this to life on campus.

Assessment: 60 minutes

At the end of the lesson, students will have learned a lot about water consumption and conservation. Now, it is time for them to come together in small teams to brainstorm an idea for a project to reduce water consumption in the school. Students will be given 30 minutes to brainstorm, design, and explain a possible campaign, which they will then present to the class. The best idea will receive extra credit, and the class can decide which ideas (if not all of them!) they would like to begin to implement in the classroom.