

Water Conservation

LESSON PLAN

NEXT GENERATION SCIENCE STANDARDS

K-ESS3-3 Earth and Human Activity: Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.

3-LS4-4 Biological Evolution: Unity and Diversity: Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.

MS-ESS3-3 Earth and Human Activity: Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.

OBJECTIVES

The student will be able to collect data on their household's water usage.

The student will be able to identify and enact solutions to conserve water in their home.

The student will be able to compare their household's water usage before and after their conservation efforts to determine if their efforts were effective.

ACTIVITIES

- The student will collect data on their household water usage using the attached worksheet for week one.
- The student will perform all calculations to determine their total water usage.
- The student will perform research using provided websites to determine ways to conserve water that would be best suited to their household.
 - <https://www.discoverwater.org/use-water-wisely/>
 - <https://wateruseitwisely.com/tips/category/kids/>
 - <https://wateruseitwisely.com/100-ways-to-conserve/>
 - <http://savingh2o.org/conservewater.html>
- The student will collect data on their household water usage using the attached worksheet for week two.
- The student will perform all calculations to determine the difference in their water usage between the two weeks.

OPPORTUNITIES FOR DIFFERENTIATION

YOUNGER STUDENTS

- Students can be directed to a singular website.
- Students can use an online calculator rather than performing calculations by hand with the worksheet.
 - <https://www.watercalculator.org/wfc2/q/household/>
- Students can work with their parents or siblings on the project.

OLDER STUDENTS

- Students can perform self directed research.
- Students can graph their results.
- Students can estimate their water usage before collecting data and determine if their estimate was correct.
- Students can perform additional research on the importance of conserving water.