

The Water Footprint of Food Teaching Demo

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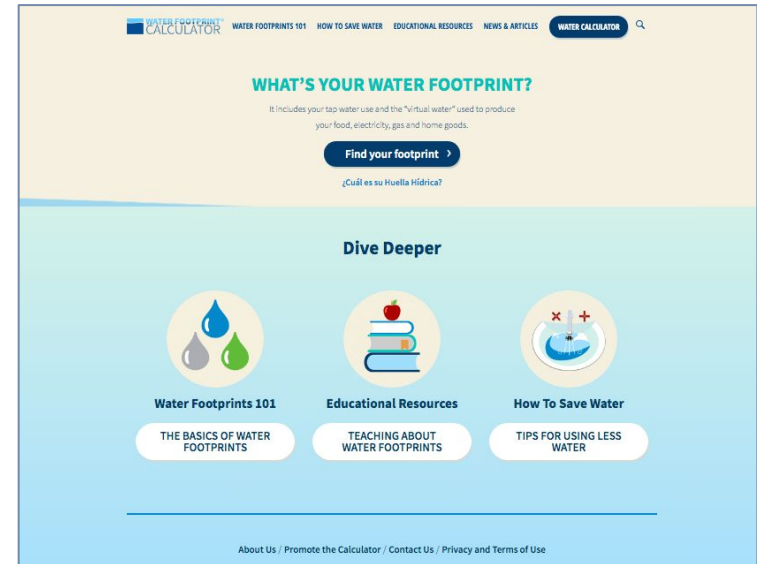
GRACE Communications Foundation

A non-profit dedicated to creating a more sustainable food system.

GRACE wanted to raise awareness about how people in the United States use water throughout their day, so we developed the tools and information on the Water Footprint Calculator site.

Water Footprint Resources for Educators

- **Tools:**
 - **The Water Footprint Calculator**
 - **The Water Footprint of Food Guide**
 - **The Water Footprint of Food Quiz**
- **Lesson Plans:** standards-aligned lessons for middle- and high-school.
- **Educator Resources:** materials that help educators teach students about water use and how to save water.
- **Student info:** information on careers in water protection, as well as research and reports.



Water Footprint Lesson Plans

Three middle- and three high-school science lessons that can be adapted up to the undergraduate level or down to elementary-school level (grades 6 to 16).

Standards alignments:

- Texas Essential Knowledge and Skills (TEKS);
- Common Core State Standards (CCSS) for ELA/Literacy and Mathematics;
- Next Generation Science Standards (NGSS); and
- Cloud Education for Sustainability (EFS) Standards & Performance Indicators.

**FREE
WATER FOOTPRINT
LESSON PLANS**

School Water Audit: Virtual Water Use

Discover the virtual water footprint of a large-scale facility like a school or business. Identify areas that can be made more sustainable, and then take action. What's the virtual business for you? You're a school, of course. Auditing your school gives you an opportunity to gather concrete data on school operations that impact the environment, and then use that data to make changes that promote more sustainable practices. For this activity, you will work in the same or similar teams that you used to create your Texas State Water Awareness Campaign. The workbook for the School Water Audit groups. A separate workbook is available for groups doing the Indoor and Outdoor Water Audits.

What you've been introduced to	You will now be exploring
Indoor water	School Water Audit: Indoor Water Use
Outdoor water	School Water Audit: Outdoor Water Use
Food	School Virtual Water Audit: Food Footprinting
Electricity	School Virtual Water Audit: Energy Use
Buying habits	School Virtual Water Audit: Electronics Purchasing

Notes/Links

Your students will work with your team to find out how either food purchasing, energy use, or electronics purchasing impacts your school's water footprint. (Note: Because the school has many partners, we are suggesting that the buying habits team select just one, manageable category – electronics – for the purposes of this audit. The Electricity team can adjust the category as necessary. They can focus on school laptops/computers or light bulb purchases. Your mission is to audit how much virtual water is needed in any category to support your purchase. To do this, you'll need to learn how about electronic, electricity, and electronics used at or by the school (over time, how much they need, how often they are purchased, what alternatives are available to reduce virtual water consumption, etc.).

Waterfalls

- Clipboard
- Interviewing questions (see sample questions)
- Pencil or pen
- Thinking cap/decide
- Notepad/notes
- Relevant administrative data, such as food purchasing reports, or food energy bills, or electronics purchasing data.

WATER FOOTPRINT CALCULATOR

DOWNLOAD NOW

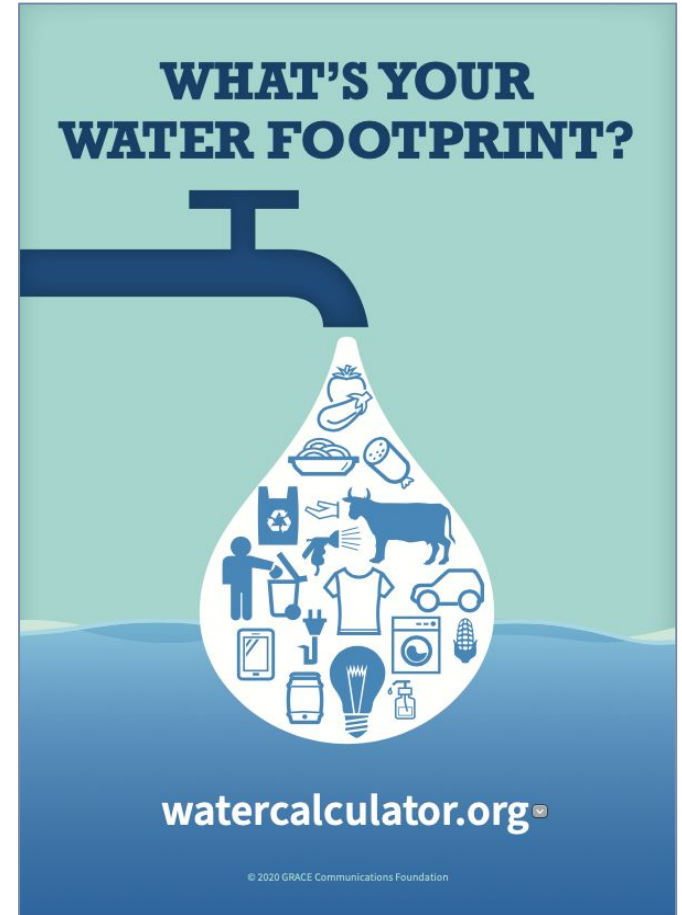
Pop Quiz

What's the average daily water footprint for an American (in the US), for all uses?

- a) 100 gallons per day
- b) 650 gallons per day
- c) 1,800 gallons per day
- d) 4,100 gallons per day

Water Footprint Calculator

GO TO:
watercalculator.org
or
calculadoradeagua.org



What is a Water Footprint?

- A method to account for and analyze the ways humans use, overuse and generally depend on water.
- Determined by the volume of water consumed, evaporated and polluted to make a product or conduct a service.



What is a Water Footprint?

Your personal water footprint includes:

- **Direct water use:** The water you use from a tap.
- **“Virtual” water use:** Water used to produce the food you eat, the products you buy and the energy you use - this makes up most of your water footprint.

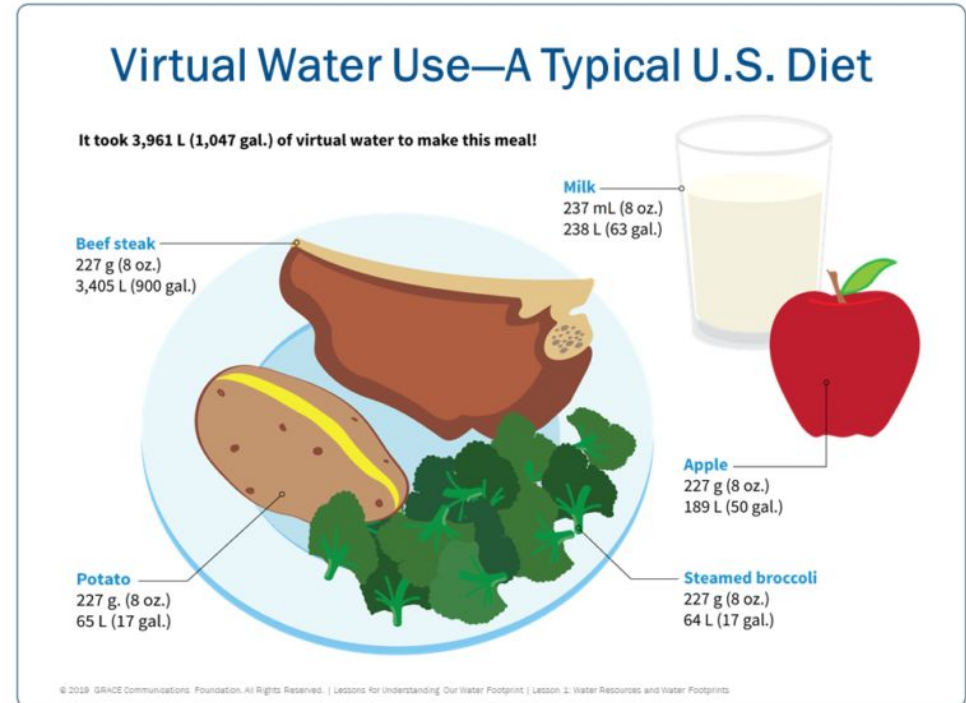


What is “Virtual” Water Use?

Indirect or **virtual water** is the water “hidden” in the products, services and processes you buy and use every day for crop irrigation, power production and consumer goods manufacturing.

US-agricultural water use is one of the biggest, because most animals are fed grain and other feed types from irrigated crops.

Your diet is the biggest indicator of what your personal water footprint will be, especially if you eat animal products.



How are Water And Food Connected?

The Water Footprint of Food Guide

WATER FOOTPRINT CALCULATOR WATER FOOTPRINTS 101 HOW TO SAVE WATER EDUCATIONAL RESOURCES NEWS & ARTICLES WATER CALCULATOR









Water Footprint of Food Guide

Home > Water Footprint of Food Guide

The Water Footprint of Food Guide

How and where your food is produced, whether it's rained or irrigated, and how much pollution it creates, determines if the water footprint is small (S), medium (M) or large (L).

SEARCH: SORT BY FOOTPRINT CATEGORY RESET

 Chocolate (Serving size: 4 ounces) 518 gallons per serving 1953 liters per serving LEARN MORE	 Almonds (Serving size: 4 ounces) 483 gallons per serving 1823 liters per serving LEARN MORE	 Beef (Serving size: 4 ounces) 463 gallons per serving 1752 liters per serving LEARN MORE	 Cashews (Serving size: 4 ounces) 427 gallons per serving 1616 liters per serving LEARN MORE
 Pistachios (Serving size: 4 ounces) 341 gallons per serving 1290 liters per serving LEARN MORE	 Hazelnuts (Serving size: 4 ounces) 316 gallons per serving 1196 liters per serving LEARN MORE	 Lamb and mutton (Serving size: 4 ounces) 313 gallons per serving 1184 liters per serving LEARN MORE	 Walnuts (Serving size: 4 ounces) 279 gallons per serving 1056 liters per serving LEARN MORE

Wrap Up/Q&A/Survey

- How will you incorporate these ideas into your instructions?
- What additional information do you need to help your students better understand their own water use and food choices and how it contributes to societal water use?
- Survey

Thank you!

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