

How Hard Can It Be to Carry Water?



R X F O R

CHILD SURVIVAL

A GLOBAL HEALTH CHALLENGE™

Purpose: To demonstrate that water is heavy and that carrying it long distances is challenging

Activity at a Glance

- Activity type: Challenge
- Age range: Elementary school–adult
- Number of players: Any number
- Duration: 10 minutes
- Space: Large room or outdoor space
- Facilitation: Minimal—just enough to explain the concept and ask follow-up questions
- Preparation time: 15 minutes

Overview

This challenge can be done by individuals, who carry water over a short distance, or by groups, where teams race one another while carrying containers of water.

Core Concepts

- Water is heavy, and carrying it for even short distances is not easy.
- Carrying water to supply a family's needs can be time consuming, because one can only carry limited quantities.

Materials

- Container: One-gallon plastic milk jugs or five-gallon containers with lids (e.g., utility pail, bucket used to hold paint or joint compound, water container with spout used for camping, or pickle bucket from restaurant)

- Water (Water weighs eight pounds per gallon. Use an amount appropriate for the young people in your group. For children under eight years old, use one one-gallon milk jug. For ages 8–12, use two one-gallon milk jugs. For ages 12–15, use one five-gallon container. For people 16 years and older, use two five-gallon containers.)
- If you are doing this activity indoors, have towels or a mop on hand in case of a spill.

Preparation

- Obtain container(s) and fill with water. Put a lid on each container.
- Set up racecourse in a playground, field, or large room.

Procedure

1. If the challenge is to be done by individuals, have them carry a container of water over a short distance, such as around a table. If it is to be done by a group, divide your group into two even teams and line them up behind a starting line.
2. Give the first person on each team a container filled with water.
3. When you give the word to start, they should race around the course, carrying the container by hand. Have them give the container to the next person. Continue until everyone has had a turn.

continued

4. Process the activity by discussing questions, such as:

- How did it feel to carry the water? *(Point out that if one has to carry many gallons of water for even short distances, supplying a family with water is not easy.)*
- How much water do they estimate they would have to carry to supply their family's needs? *(On average, a person living in sub-Saharan Africa uses four gallons per day, while someone living in the US uses 82 gallons per day)*
- What are some of the issues associated with carrying water to supply a family's needs? *(Many of the world's people must carry water to their homes from a distant source, a task often assigned to children. Being away from home can expose children to danger. Furthermore, this task is time consuming, since one can only carry limited quantities. The heavy weight can cause injury to children. In addition, crops requiring more than just rainfall cannot be grown on a large scale, so that droughts have a significant impact on a family's well being.)*
- Where might people without household water get their water? *(Typical sources are lakes, rivers, wells, or rain collection systems.)*

- What issues might be associated with collecting water from open sources, such as lakes, rivers, wells, or rain collection systems? *(They may be contaminated with disease-causing organisms and parasites.)*
 - How much time do you think fetching water for your family and collecting firewood for cooking requires each day? *(Several hours)* What kinds of things won't you be able to do in order to find the time to fetch water and collect firewood? *(Children would have little time for play or other activities and might possibly have to drop out of school.)*
5. Extend the activity by collecting some water from a pond, preferably water with noticeable amounts of sediment or algae, and seeing how much a filter can remove.

