

Prep to year 7

Buckets resource race

Australian Curriculum link: Sustainability cross-curriculum priority

In this outdoor relay game, students experience what it feels like to compete for precious water resources. They explore how to sustainably manage our water supplies.

This game can be used in-class or at school or community events to highlight water supply issues. It is also popular with adults and could be played with families.

Equipment

For the class

five or six buckets

a dozen cups

Preparation

Fill two buckets with water: one will be the common bucket, the water in the other will be used to top up the common bucket.

Activity steps

1. Ask the students (or other participants) to think about what it would be like to have a limited supply of water. Have they ever been in a situation in which their water has been limited such as camping in the desert? Ask them to share their experiences. Discuss the water saving strategies they used.

You could point out that water is referred to as a 'natural resource' because it is something we use which is not man-made. Ask students to identify other natural resources such as soil, minerals, oceans and forests.

2. Explain that students are going to be divided into three teams: homeowners, industrialists and farmers. You can devise other team roles to suit your local context e.g. local council, businesses or a school. Ask them to brainstorm the uses each group would have for water.
3. Ask one student to play the part of the local water source such as a river and group the other students into three teams. Move outside into an area which will not become slippery when wet (preferably grassed). Give each group one cup and a bucket which is placed an equal distance from the common bucket.
4. Ask teams to form lines extending from the common bucket (full of water) to their team bucket. Explain that the purpose of the game is for each team to get their bucket as full as possible by scooping water from the common bucket into the cup, then passing the cup down the team line. The last person in the line empties the cup into the team bucket, runs to the head of the line, fills the cup from the common bucket then gives it to the next person in line to pass to the next person, and so on. The student who is playing the part of the water source continually tops up the common bucket with water from the other bucket. Explain that this top-up bucket represents the rain that fills up the water source (common bucket).



- 
5. Begin the game, then start reducing the water supply by decreasing the rate at which the 'water source' student refills the main supply (common) bucket. Allow the teams to compete for water for a short time then stop the activity.
 6. Ask students to verbalise the problem – for example, 'When we have less water we fight to get our share.' 'Everyone gets less water.' 'It isn't fair.'
 7. Ask students to come up with ways to solve or improve the problem, such as smaller cups or allocated amounts. Ask students to discuss what less available water might mean for their group and to share ideas with the whole class. Ask students if some groups deserve water more than others. Ask the students to consider the water that might be needed in the environment. What animals and plants are also dependent on water from the water source? How can water be allocated for these environmental needs?
 8. Decide on a responsible way to use any water remaining in the buckets and return to the classroom. Ask students to reflect on the activity and write an opinion or a conclusion in their journals supported by evidence. For instance:
 - 'In my opinion farmers need to have first priority when water is being allocated (opinion) because they grow the food that feeds us and this is vital (evidence).'
 - 'All households should be fitted with rainwater tanks and water recycling systems (Conclusion) because farmers and industrialists could use the water that would be saved to grow and build the things we need (Evidence).'