

## **SHELTERBOX: WATER AWARENESS**

**Who is this activity for:** Age range (6-8) – Mid-Key stage 1 - Mid-Key Stage 2, Years 1-4, Infants and Juniors, Beavers and Rainbows

**How long should it take:** 40-60 minutes

The session is divided into three parts:

1. **The Importance of Water**
2. **Water Race**
3. **Create a Water Filter**

**Resources needed:** One printout of all sheets.

### **Water Race:**

One paddling pool per team. Recommended diameter of approximately one or two metres

Two buckets per team

Cones or equivalent

One large container of equal size per team (such as a plastic dustbin).

A stopwatch

A tape measure

### **Creating a Water Filter**

A two-litre plastic bottle (cut in half by an adult)

Napkins or paper towels

Gravel, sand and cotton balls

Dirty water

## 1. THE IMPORTANCE OF WATER

**INSTRUCTIONS:** Read this information to your group and then discuss which everyday activities involve water (for example; showering, washing clothes, cleaning teeth, cooking), and how much they think they might use.

Clean drinking water is essential for the survival of humans and, excluding fat, accounts for approximately 70% of the human body! However, if water is not clean, it can be dangerous and carry potentially harmful diseases such as cholera.

Over the past few decades, access to safe drinking water has substantially improved. However, there are still areas where this is still not the case. Access to clean water can be particularly difficult in disaster affected areas where infrastructure (water treatment plants, water pipes etc.) may be destroyed.

It is recommended that every individual has access to approximately 7.5 - 15 litres of clean water per day.

- Drinking water: 2.5-3 litres
- Basic hygiene needs: 2-6 litres
- Basic cooking needs: 3-6 litres

## 2. WATER RACE

### INSTRUCTIONS:

- Divide your group into teams, one per paddling pool.
- Using cones, create a course for the teams to navigate.
- At one end, lay out the paddling pools and fill with water. At the other, place one large container per team.
- Tell the teams to 'deliver' the water from paddling pool to container using the buckets.
- Teams can either work in relay – one person at a time – or in a human chain.
- The winners are the team that has successfully transferred the most water in three minutes.
- Inform the teams of any potential hazards before beginning the game

### RULES

- Teams must successfully transfer water from the paddling pool to their end container.
- They must stick to the route of the course.
- Sabotaging other teams is not allowed!

### 3. CREATE A WATER FILTER

**INSTRUCTIONS: Read this information sheet to the group:**

In areas affected by disaster, access to clean, safe water can be difficult. A ShelterBox will often include collapsible water carriers and water purification equipment. This can ensure people drink safe water which won't spread potentially dangerous diseases.

**41%** of the world's refugees do not have access to safe drinking water

**90%** of all natural disasters are water-related

**2.1 billion** people lack access to safely managed drinking water services  
*(WHO/UNICEF 2017)*

**When families are unable to access clean water, water filters enable them to produce safe drinking water.**

The filters can remove viruses, bacteria and pathogens that can be found within contaminated water, as well as chemicals, heavy metals and faecal matter.

A water filter can turn up to 1000 litres of unsafe water into clean drinking water - that's enough for a family of four for a month.

ShelterBox also send collapsible water carriers to help families carry and store water. They are light and hard wearing, and can hold 15 litres of water.

**Now to make your own water filter...**

## **MAKE A WATER FILTER - DIRECTIONS**

Put the top half of a plastic bottle inside the bottom half, nozzle-down, so it makes a funnel. Build a filter inside the top half, so that your clean water will collect in the bottom half.

Layer the filter materials (napkins, gravel, sand and cotton balls) one at a time in the top half of the bottle. Think about what kind of pollutant each layer might filter out. What's the best order to put the materials?

Pour the dirty water through the filter and see how it has changed colour as the impurities are filtered out.

The group can experiment by putting the materials in a different order, or trying them one at a time. Which filter will be the most successful?

***Note: Please ensure that no members of your section attempt to drink the water. While this basic style of filter can be a great survival technique in certain areas, we'd never recommend you drink the water - there is still the risk you may become ill.***