RESULT 5 · ACTIVITIES FOR SENIOR & INTERGENERATIONAL GROUPS

Water Detectives

Teams guess how much hidden water sits behind a cup of coffee, an egg or a pair of jeans, place their bets along a giant "water line" on the floor, and then go shopping with what they have learned.



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ACTIVITY 12 · GUESSING GAME · HIDDEN WATER

12

Water Detectives



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FORMAT	TIME	GROUP
Guessing game · hidden water	45–60 min	6–30 · teams of 3–5
LETTERS G · R	**YOU NEED** Water Detectives object cards and answer key (Printable K), a long rope or tape for the floor, sticky notes, a few real objects (a mug, an egg, a T-shirt, jeans, a sheet of paper), a 10-litre bucket	

THE ACTIVITY IN PLAIN WORDS

Every object has a hidden story. Before a cup of coffee reaches your table, water was used to grow the coffee plant, process the beans and transport them. This "hidden" or "virtual" water is usually much more than the water we see at the tap. In this game, teams become water detectives. They examine real objects and object cards, guess how many litres of hidden water each one carries, and place their guesses along a long rope on the floor that runs from 0 to 16,000 litres. The closest team wins each round. In the final round, teams go "shopping" with a water budget and make real-world choices. Expect gasps, arguments and some very surprised faces.

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You will need

- Water Detectives object cards and answer key (Printable K)
- A long rope, string or masking tape, laid on the floor as a "water line", with signs at 0, 100, 1,000, 5,000, 10,000 and 16,000 litres
- Sticky notes in a different colour for each team, and pens
- A few real objects as props: a coffee mug, an egg, a sheet of A4 paper, a cotton T-shirt, a pair of jeans, an apple, a slice of bread
- One 10-litre bucket (empty), to help people imagine the amounts
- A scoreboard on a flipchart

Before the session

- Print and cut the object cards. Keep the answer key separate and out of sight.
- Lay the rope on the floor and put the number signs along it. The distances do not need to be exact. Leave space for people to walk along it, or put it on a long table for seated groups.
- Arrange the real objects on a "crime scene" table with a cloth over them.
- Practise the bucket fact: 140 litres, the hidden water in one cup of coffee, is 14 buckets.

OPENING LINES · READ ALOUD

"Good afternoon, detectives. We all know about the water that comes out of the tap. But today we are hunting for water that nobody can see. It is hiding inside your breakfast, your wardrobe and even your newspaper. It was used on farms and in factories, sometimes on the other side of the world, long before the object reached you. Your job is to estimate how much. This bucket holds 10 litres. Keep it in mind. Some of the answers will fit in a few buckets. Some would fill a swimming pool. Let's start the investigation."

How to run it

1 The reveal 3 min

Pull the cloth off the crime scene table. Hold up each object and pass it around. Explain hidden water in one sentence: "It is all the water used to make something, from the field to the shop."

2 Round one: line up the suspects 10 min

Each team gets six object cards. Teams discuss and write a guess, in litres, on a sticky note for each object. Then one member from each team walks the notes to the water line and sticks them where they think the answer is. Seated players can direct a younger "runner" from their chair.

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3 The verdict 7 min

Read out the answers from the key, one at a time, with drama. Stand the real object on the floor at the right place on the line. Teams score three points for the closest guess, one point for being in the right "zone" (under 100 litres, hundreds, thousands, or over 10,000).

4 Round two: higher or lower 8 min

The facilitator holds up two cards, for example "a cup of tea" and "a glass of milk". Teams stand on the left side of the room if they think the first one has more hidden water, the right side if they think the second one does. Everyone who is right scores a point. Play five or six pairs quickly. Seated groups can raise a red or blue card instead.

5 Round three: the water-wise shopping basket 10 min

Give each team a water budget of 10,000 litres and the object cards as "shop items". They must "buy" one breakfast, one lunch and one item of clothing for a week, without going over budget. Then the twist: teams may "make something last" (keep their old jeans instead of buying new ones) or "use it all" (no food thrown away) to earn back water. Each team presents its basket in one minute.

6 The detective's notebook 5 min

Each person writes one thing that surprised them and one choice they might change, on the back of a sticky note, and keeps it.

EXAMPLE

In a library meeting room in Kraków, Team Wisła (Jadwiga, 66, Tomasz, 70, and Zosia, 15) guesses 50 litres for a pair of jeans. "Wash it a few times, that's all," says Tomasz. The answer, around 7,500 litres, is so far away that Zosia has to walk to the very end of the rope. In round two, Jadwiga is sure a glass of milk has less hidden water than a cup of tea. She is wrong: about 250 litres for the milk against about 30 for the tea, because the cow drinks and eats a lot. In the shopping round, the team keeps last year's jeans, chooses potatoes and eggs, and has 2,000 litres to spare. Zosia says she will think twice before buying another pair of jeans she does not need.

KEY IDEA

"Hidden water", also called virtual water or the water footprint, is all the fresh water used to produce something along its whole supply chain. Most of it is rain and irrigation water used to grow crops and feed animals. The numbers are global averages and change a lot with the country, the farm and the method, so treat them as game figures that show scale, not exact facts. Making things last and not wasting food protects all the water already used to make them. Sources: Water Footprint Network and A. Y. Hoekstra, "The water footprint: water in the supply chain", The Environmentalist (2010); M. M. Mekonnen and A. Y. Hoekstra, UNESCO-IHE (2012) for beef (about 15,400 litres per kg); United Nations (UN News and UNEP, 2019) for jeans (about 7,500 litres).

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Debrief

1

What happened?

Which object was your team most wrong about? Which answer surprised you most, and why?

2

So what?

Why is so much water hidden in food and clothes? Where in the world might that water come from, and does it matter if that place has droughts?

3

Now what?

Which one swap or habit could you keep: wearing clothes for longer, buying second-hand, cooking only what you will eat, or eating a little less beef?

Make it work for your group

- **Limited mobility, sight or hearing:** Put the water line on a long table instead of the floor, and let people slide their notes along it while seated. Use large-print cards (at least 14 pt) and real objects people can hold. Read every answer clearly, twice. Replace the "move to one side" round with coloured cards held up.
- **Mixed-age (intergenerational) version:** Young people are the "runners" and the "lab assistants" who place the notes and add up scores. Older people are the "chief detectives" who lead the guessing, often bringing memories of farming, mending and food preservation that are very useful in round three.
- **No-device version:** This activity needs no device.
- **Online or hybrid version:** Use a shared slide with a line from 0 to 16,000 litres. Teams type their guesses into the chat. Hold up real objects to the camera.
- **Short (20-min) version:** Play round one with four objects and round two with four quick pairs. Skip the shopping round.

WATCH OUT

Some people find the numbers hard to believe or feel blamed for their choices. Stress that these are average figures, that most of this water is rain falling on fields, and that the aim is to understand scale, not to make anyone feel guilty. Do not give anyone the idea that they must stop eating certain foods; diet decisions belong to each person and their doctor. If you use real food as props, check for allergies and keep it wrapped. Beef figures are discussed by experts because they include rain on grazing land, so present them as "about" figures.

OWN IT

Pick one object you already own that carries a lot of hidden water (jeans, a cotton shirt, a woollen jumper) and decide to make it last longer: mend it, wash it less often, or pass it on. For example: "This month I will sew the hole in my old jeans instead of buying a new pair, and I will tell my granddaughter how much water we saved."

Related: Water at home · G-PRO cards: KW-03 Water in Your Food, KS-05 The Meat Question, KR-11 Fast Fashion, KS-11 The Oldest Thing You Still Wear

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