

Invisible Water

Remember not to give the items to the children in order.

Pair of jeans	9,842 litres
T-Shirt	2,700 litres
Hamburger	2,500 litres
Bar of chocolate	2,500 litres
Glass of milk	208 litres
Cup of coffee	140 litres
Slice of bread	40 litres

**Sheet of
paper**

10 litres

Teachers notes:

Pair of jeans	<p>That's 130 bathtubs of water!</p> <p>Jeans are mostly made from cotton. Water is needed to grow the cotton, wash it, and dye it blue. During the process cotton is spun into yarn, then dyed and rinsed several times to make dye layers. The cotton is then coated with a starch to stiffen it and woven with synthetic fibres into the denim material which is then prewashed before sewing.</p> <p>Each of these processes require a huge amount of water. This is often freshwater taken from the environment and not put back after production, or put back into the environment without removing the chemicals and dyes used, therefore polluting the water supply.</p> <p>9,842 litres of water are only the amount used in the production – that number doesn't include the water used the hundreds of times you might wash the jeans after you wear them. In fact, a typical pair of blue jeans consumes 4,177 litres of water during its life cycle of washing and wearing.</p>
T-Shirt	<p>It takes 2,700 litres of water to produce one t-shirt – that's how much a person would normally drink over a 3-year period!</p> <p>T-shirts are made from cotton. Cotton is a soft fluffy fibre that grows on cotton plants. These plants are often watered by the rain, but they are grown in such huge quantities that they need to be artificially watered too. The cotton is often dyed and rinsed several times to make coloured t-shirts.</p>
Hamburger	<p>This number includes the bread, meat, lettuce and tomato. Meats like beef and pork need the most amount of water of all the foods. Cows and pigs, especially factory farmed animals, use more water as they are fed on animal feed which uses water in their production.</p> <p>Animals that are grazing on grass which is watered purely by rainwater use less water but still need a significant amount.</p>
Bar of chocolate	<p>Ingredients in a 150g bar of chocolate usually include milk, sugar, cocoa and cocoa butter. As with other products from the land it's the water needed for growing the plants (cocoa</p>

	bean plants, sugar cane) that takes the biggest amount of water.
Glass of milk	A dairy cow needs water to drink but also animal feed and grass to eat, both of which require water.
Cup of coffee	<p>That's almost 2 full bathtubs of water!</p> <p>This is a standard espresso size serving. Coffee beans are green and roasted to turn them that recognisable black colour. The beans use a lot of water to grow. Also, water is often used to separate the coffee beans from their pulp after they've been harvested.</p> <p>Instant coffee uses even more water in the production process as it involves using huge amounts of pressurised hot water to extract the flavour and smell for the granules.</p>
Slice of bread	<p>That's the same amount of liquid as 13 cans of juice!</p> <p>Bread is made from a dough made of flour and water. However, you need lots of water to grow the wheat which is made into flour in the first place. This number reflects just one slice of bread, but we normally buy bread in loaves of several slices.</p> <p>Bread is also one of the most wasted items in our kitchen – we throw away huge amounts of uneaten bread every day which wastes water!</p>
Sheet of paper	<p>The main ingredient of paper is wood pulp. Water is required for growing the wood trees and for processing the pulp into the finished paper product.</p> <p>This number is for just one sheet of A4 paper – if we waste even just one sheet of paper we are wasting 10 litres of water.</p>