



Name: _____

Class: _____ Date: _____

Figure It Out: Water Waste!

An activity of "Future fashion"

Did you know that staggering amounts of water are used when making cloth? The two pages of **"Future fashion"** (page 14–15, *What's Up* January 2020) tell us some facts about it. Let's see how these maths problems may help you to get the big picture more clearly. Read **"New uses for old clothes"** (page 14), and **"New ways to make what you wear"** (page 15) carefully. Then, answer the following questions. Show your calculations on the back of this sheet.

1. In the Tan household of three adults and two children, the approximate daily water consumption of each child and each adult is 80 gallons and 100 gallons respectively. Given that 1 gallon = 3.79 litres, calculate in litres **the average daily water consumption per person in the Tan household.**

ANSWER: _____

2. PUB reports that the **average daily water consumption per person in a Singaporean household** has reduced from 165 litres in 2003 to 143 litres in 2017. For such a household of four, calculate the answers to the first three questions below. For 2d, give an estimate based on your memory.

a) Total amount of water consumed in the year 2017. ANSWER: _____

b) Total amount of water saved daily in 2017 compared to 2003. ANSWER: _____

c) The number of days a household took to save 20,000 litres of water in 2017. ANSWER: _____

d) The number of pairs of jeans in your own household in 2017. ANSWER: _____

e) The litres of water it took to produce those pairs of jeans. ANSWER: _____

f) Describe in terms of percentages how the volumes in your answers to 2a) and 2e) compare with the volume of water in a rectangular swimming pool which is 50m long, 25m wide, and uniformly 2 m deep. ANSWERS: _____ and _____

3. Check the internet. Find out roughly how much water is needed to produce each of the following. Tick your answers.

a) An A4-size sheet of paper: 2,000 litres. 10 litres. 170 litres. 2,700 litres.

b) A cotton shirt: 2,000 litres. 10 litres. 170 litres. 2,700 litres.

c) A beef burger patty: 2,000 litres. 10 litres. 170 litres. 2,700 litres.

d) A 200ml of orange juice: 2,000 litres. 10 litres. 170 litres. 2,700 litres.

4. You may not completely stop buying products such as jeans, paper products, and meat that use whopping amounts of water to produce. However, you can try to be a more responsible consumer. List two ways in which you can reduce your personal water consumption.

a) _____

b) _____
