

Questions & Answers

(Instructions for the moderator)

Water Consumption Questions & Answers

1) How many water bottles is the amount of water consumed in 1 minute in a shower? (0.5L)

- a. 15
- b. 18
- c. **20**

The EPA estimates that the standard shower heads use **2.5 gallons of water per minute = 9.46L = 20 water bottles.**

4 ways to measure a 5 minute shower. Sustainability at Harvard. (2020, February 4). Retrieved January 21, 2022, from <https://green.harvard.edu/tools-resources/green-tip/4-ways-measure-5-minute-shower#:~:text=The%20EPA%20estimates%20that%20the,water%20for%20the%20average%20shower!>

2) When we wash as many dishes by hand as we would normally wash in a dishwasher, how many dishwashers would we waste?

- a. 2
- b. **3**
- c. 4

- New standard-sized dishwashers use, on average, **6 gallons of water per cycle.**
- About **9-27 gallons for hand-washing.** This all depends on how efficient you are at hand-washing dishes. **(18 gallons on average)**
- **18/6 = 3** times more

Howard Perlman, U. S. G. S., & Scott Young, U. S. G. S. (n.d.). How much water do you use at home? Per capita water use: How much water do you use at home? USGS Water Science School. Retrieved January 21, 2022, from <https://water.usgs.gov/edu/activity-percapita.php>

3) How many bottles of water would we waste if we left the tap on while brushing our teeth?

(When the tap is closed we use 6 water bottles amount of water)

- a. 16
- b. 20
- c. **24**

- How long should I brush my teeth? Current recommendations from the American Dental Association (ADA) encourage **brushing for two minutes, twice per day.** If you spend less than two minutes brushing, you won't remove as much plaque from your teeth.

Raypole, C. (2019, April 1). How long should you brush your teeth? plus, other brushing faqs. Healthline. Retrieved January 21, 2022, from <https://www.healthline.com/health/how-long-should-you-brush-your-teeth#:~:text=How%20long%20should%20I%20brush,much%20plaque%20from%20your%20teeth>

- Newer bath faucets use about **1 gallon per minute**, whereas older models use over 2 gallons. **(In average 1.5 gallons for 1 min --> 5.68 L for 1 min --> 11.36 L for 2 min --> 24 Water bottles)**

Howard Perlman, U. S. G. S., & Scott Young, U. S. G. S. (n.d.). How much water do you use at home? Per capita water use: How much water do you use at home? USGS Water Science School. Retrieved January 21, 2022, from <https://water.usgs.gov/edu/activity-percapita.php>

4) How many shirts can be washed when the machine is run full?

- a. 50
- b. 20
- c. **40**

- The volume of a shirt is **7.71 10⁻² cubic feet = 0.00218322887 cubic meters**

JFairbanks. (1970, January 1). Shirts volume and surface area. Shirts Volume and Surface Area. Retrieved January 21, 2022, from <http://8ismyluckynumber.blogspot.com/2016/01/shirts-volume-and-surface-area.html>

- Standard washers generally have a volume of around 2.9 to 3.2 cubic feet = **In average 0.0863663821 cubic meters**

Smyth, D. (2021, August 5). How to calculate a washer tub size. Home Guides | SF Gate. Retrieved January 21, 2022, from <https://homeguides.sfgate.com/calculate-washer-tub-size-80183.html>

- **0.0863663821 / 0.00218322887 = 40**

5) Which of these activities wastes the MOST water per day in the average home?

- A. Running the tap while washing the dishes
- B. A leaky toilet**
- C. Long showers

A leaky toilet can waste about 200 gallons of water every day! To tell if your toilet is leaking, place a drop of food coloring in the tank; if the color shows in the bowl without flushing, you have a leak.

Environmental Protection Agency. (n.d.). Water Consumption. EPA. Retrieved January 21, 2022, from https://19january2017snapshot.epa.gov/www3/watersense/text_based.html

6) Which method uses less water?

- A. Washing dishes under a running tap
- B. Washing dishes in a fully loaded dishwasher**

Water Consumption Questions & Answers

7) How many bottles of water do we waste when we flush in a day?

- A. 100
- B. 120**
- C. 140

- Most new toilets use 1.6 gallons per flush, but many older toilets used about 4 gallons. **In Average 3 gallons -> 11.3562354 Liters -> 24 Water bottles (0.5L)**

Howard Perlman, U. S. G. S., & Scott Young, U. S. G. S. (n.d.). How much water do you use at home? Per capita water use: How much water do you use at home? USGS Water Science School. Retrieved January 21, 2022, from <https://water.usgs.gov/edu/activity-percapita.php>

- On average, and according to detailed (external) research the average person flushes their toilet 5 times a day.
- **24 x 5 = 120 water bottles (0.5L)**

Flushing the toilet every day. Steve Hastings Drain Services. (2019, May 20). Retrieved January 21, 2022, from <https://stevhastingsdrainage.co.uk/how-many-times-does-the-average-person-flush-the-toilet-in-a-day/#:~:text=On%20average%2C%20and%20according%20to,..%20you%20guessed%20that%20too>

8) Name 3 examples of how you can save water?

- Check your toilet for leaks.
- Stop using your toilet as an ashtray or wastebasket.
- Put a plastic bottle in your toilet tank.
- Take shorter showers.
- Install water-saving showerheads or flow restrictions.
- Turn off the water while brushing your teeth.
- Turn off the water while shaving...

9) Which of these everyday objects is a water-saving tool?

- A bucket
- B. A clock
- C. A broom
- D. All of the above**

Put a bucket under the tap while you make the water at the right temperature. The water collected can be used to water plants or fill up your pet's water bowl. Use a clock to keep your showers under five minutes. Use a broom instead of the hose to clean your driveway or sidewalk.

Class 5 question. EDUREV.IN. (n.d.). Retrieved January 21, 2022, from <https://edurev.in/question/2062677/Which-of-these-everyday-objects-is-a-water-saving->

10) How many water bottles do we save from getting wasted when we fix water leaks in the house?

- A. 1500
- B. 1508
- C. 1514**

Fix leaks around the house; fixing small leaks in your house could save **200 gallons of water per week -> 757.08236 Liters -> 1514 Water bottles (0.5L).**

Environmental Protection Agency. (n.d.). EPA. Retrieved January 21, 2022, from <https://www.epa.gov/watersense/fix-leak-week>

11) True or False: It isn't important to save water because there is so much of it on Earth.

- A. True
- B. False**

12) Why can't we drink seawater, although we have so much of it on earth?

- A. It is salty and unclean**
- B. Because animals have already drunk it
- C. It is just for animals to swim

13) When is the best time of day to water your lawn?

- A. Early morning or evening**
- B. In the afternoon
- C. All day long

Although it is fun to run through the sprinklers at the hottest time of day, your lawn should only be watered in the early morning or evening when it's cooler. **Watering the yard when it's really hot outside causes the water to evaporate before the plants have time to drink it.**

14) Which of these ways to wash the car saves the most water?

- A. Wash it in the driveway with the garden hose
- B. Drive it into the lake
- C. Take it through a car wash that recycles water**

Water Consumption Questions & Answers

Many car washes save more water than if you wash your car at home. They do this by recycling the water that they use instead of letting it run down sewer drains. Tell your parents to search online to find a "water-efficient" car wash near your house. If you do wash it at home using a bucket instead of letting the hose run!

EPA. (n.d.). Hey kids, it's time to test your watersense knowledge. Retrieved January 21, 2022, from <https://19january2021snapshot.epa.gov/sites/static/files/2017-03/documents/ws-kids-test-your-watersense.pdf>

15) When you clean off after playing outside, which uses less water?

A. Taking a 5-minute shower

B. Taking a bath

It might be more fun to splash in a warm bath, it takes 70 gallons of water to fill a tub but only 10 to 13 gallons for a five-minute shower. If you do take a bath, put the stopper in the drain right away and change the temperature as you fill the tub.

EPA. (n.d.). Hey kids, it's time to test your watersense knowledge. Retrieved January 21, 2022, from <https://19january2021snapshot.epa.gov/sites/static/files/2017-03/documents/ws-kids-test-your-watersense.pdf>

16) True or False: It is okay to flush some trash down the toilet like cotton balls, wipes, and tissue.

A. True

B. False

Flushing the toilet for silly reasons wastes a lot of water. Only flush the 3 P's down the toilet – pee, poop, and (toilet) paper!

EPA. (n.d.). Hey kids, it's time to test your watersense knowledge. Retrieved January 21, 2022, from <https://19january2021snapshot.epa.gov/sites/static/files/2017-03/documents/ws-kids-test-your-watersense.pdf>

17) Where does the average home use the most water during the hotter months?

A. Dishwasher

B. Outdoor Watering

C. Shower/Bath

D. Washing Machine

Just like you get thirsty when you are hot, plants are thirstier during hot and dry months. Some plants that are native to your area may not mind the hot weather as much and may not need as much extra water beyond what they get from rainfall alone.

EPA. (n.d.). Hey kids, it's time to test your watersense knowledge. Retrieved January 21, 2022, from <https://19january2021snapshot.epa.gov/sites/static/files/2017-03/documents/ws-kids-test-your-watersense.pdf>

18) Why is water very important for us?

A. We can't live without it

B. Animals can't live without it

C. Our Planet won't survive without it

D. All of the above

19) In what year, do scientists think that there will not be enough water for the Earth's population?

Answer choices

A. 2025

B. 2050

C. 2075

Witze, A. (2019, August 21). More than 2 billion people lack safe drinking water. that number will only grow. Science News. Retrieved January 21, 2022, from <https://www.sciencenews.org/article/future-will-people-have-enough-water-live#:~:text=By%202050%2C%20some%203.5%20billion,analyzed%20water%20sources%20and%20demands>

20) When we use hot water too much do we also affect the electricity?

A. Yes

B. No

Carbon Footprint Questions & Answers

1) Do we create less carbon footprint when we travel by train or by plane?

A. TRAIN

B. PLANE

Planes are 2 times greater c.f. producers.

Motavalli, J. (2021, March 6). Plane, train or automobile: Which has the biggest footprint? Treehugger. Retrieved December 1, 2021, from <https://www.treehugger.com/plane-train-or-automobile-which-has-the-biggest-footprint-4868815>

2) How does recycling affect carbon footprint?

A. Increasing

B. Decreasing

Recycling is good for the environment because it keeps excess waste out of landfills and trash incinerators. If you recycle on a regular basis, your carbon footprint is smaller.

How big is your carbon footprint? - energy star. (n.d.). Retrieved January 21, 2022, from https://www.energystar.gov/ia/products/globalwarming/downloads/GoGreen_Activities%20508_compliant_small.pdf

3) What does the energy star label mean on electronic products?

Energy Star-rated appliances use less energy. When purchasing new appliances such as a refrigerator, range stove, microwave, or air conditioner, look for the Energy Star label to save energy, save money, and reduce your carbon footprint.

How big is your carbon footprint? - energy star. (n.d.). Retrieved January 21, 2022, from https://www.energystar.gov/ia/products/globalwarming/downloads/GoGreen_Activities%20508_compliant_small.pdf

4) Does eating organic food influence your carbon footprint?

A. Yes

B. No

The production of organic food puts less stress on the environment, so your carbon footprint is smaller if you tend to eat organic food.

How big is your carbon footprint? - energy star. (n.d.). Retrieved January 21, 2022, from https://www.energystar.gov/ia/products/globalwarming/downloads/GoGreen_Activities%20508_compliant_small.pdf

5) Why does composting at home affect carbon footprint?

A. Because it keeps kitchen and garden waste out of the trash.

B. Because it is useful for the plants.

Composting is good for the environment because it keeps kitchen and garden waste out of the trash and it encourages natural gardening practices. If you compost at your house, your carbon footprint is smaller.

How big is your carbon footprint? - energy star. (n.d.). Retrieved January 21, 2022, from https://www.energystar.gov/ia/products/globalwarming/downloads/GoGreen_Activities%20508_compliant_small.pdf

6) Does eating meat have a good or bad effect on carbon footprint?

A. Good

B. Bad

Animals are fed food products that increase their growth, but these food products are not digested and cause the animals to produce methane which is a harmful gas for the environment and increases the carbon footprint.

How big is your carbon footprint? - energy star. (n.d.). Retrieved January 21, 2022, from https://www.energystar.gov/ia/products/globalwarming/downloads/GoGreen_Activities%20508_compliant_small.pdf

7) What is a fossil fuel?

A. a natural energy source

B. a carbon footprint

C. a dinosaur fossil

D. gas from cars

Take online courses. earn college credit. Research Schools, Degrees & Careers. Study.com | Take Online Courses. Earn College Credit. Research Schools, Degrees & Careers. (n.d.). Retrieved January 21, 2022, from

8) What is carbon dioxide?

A. a type of rock

B. a liquid

C. a solid

D. a gas

Take online courses. earn college credit. Research Schools, Degrees & Careers. Study.com | Take Online Courses. Earn College Credit. Research Schools, Degrees & Careers. (n.d.). Retrieved January 21, 2022, from

Carbon Footprint Questions & Answers

9) How does the time program of thermostats affects carbon footprint?

- A. Positive
- B. Negative**

A programmable thermostat turns your home's heating or air-conditioning up and down automatically, depending on the time of day. When your home's energy system is working efficiently, it wastes less energy, thus reducing your carbon footprint

Thermostats. Energy.gov. (n.d.). Retrieved January 21, 2022, from <https://www.energy.gov/energysaver/thermostats>

10) What can you do to reduce your carbon footprint?

- A. Use electricity less often**
- B. Take longer showers
- C. Turn the light on in every room of the house

Electricity production generates the second-largest share of greenhouse gas emissions. Approximately 62 percent of our electricity comes from burning fossil fuels, mostly coal and natural gas.

How to reduce my carbon footprint? European Youth Portal. (n.d.). Retrieved January 21, 2022, from https://europa.eu/youth/get-involved/sustainable-development/how-reduce-my-carbon-footprint_en

11) Why is a low carbon footprint bad?

- A. It makes the earth „sick“
- B. causes lots of problems for animals and people
- C. It is not bad**

12) What makes you have a less carbon footprint?

- A. Turn the light off when you leave a room**
- B. Turn the light on when leaving a room

Electricity production generates the second-largest share of greenhouse gas emissions. Approximately 62 percent of our electricity comes from burning fossil fuels, mostly coal and natural gas.

Environmental Protection Agency. (n.d.). EPA. Retrieved January 21, 2022, from [https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions#:~:text=Electricity%20production%20\(25%20percent%20of,mostly%20coal%20and%20natural%20gas.](https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions#:~:text=Electricity%20production%20(25%20percent%20of,mostly%20coal%20and%20natural%20gas.)

13) What creates less carbon footprint?

- A. Fast food
- B. Home cooked food**

Less waste is created with the meals we make at home, and since we are conscious individuals, we protect our oil and compost our organic wastes.

How big is your carbon footprint? - energy star. (n.d.). Retrieved January 21, 2022, from https://www.energystar.gov/ia/products/globalwarming/downloads/GoGreen_Activities%20508_compliant_small.pdf

14) What creates less carbon footprint?

- A. Meat
- B. Vegetables and fruits**

Animals are fed food products that increase their growth, but these food products are not digested and cause the animals to produce methane which is a harmful gas for the environment and increases the carbon footprint.

Environmental Protection Agency. (n.d.). EPA. Retrieved January 21, 2022, from <https://www.epa.gov/ghgemissions/overview-greenhouse-gases>

15) The words "carbon footprint" are often seen in the news. They are used with the word sustainability, what does it mean?

This means that we can keep doing something without making something bad happen. That is, if there is too much of a carbon footprint, then there is no sustainability.

16) Should you turn off your TV, video game, or computer when you don't use it?

- A. Yes, I always do it.**
- B. No, it is not necessary.

Carbon Footprint Questions & Answers

17) Does the size of our car affect our carbon footprint?

A.Yes

B.No

The larger the car, the more carbon dioxide is emitted

How big is your carbon footprint? - energy star. (n.d.). Retrieved January 21, 2022, from https://www.energystar.gov/ia/products/globalwarming/downloads/GoGreen_Activities%20508_compliant_small.pdf

18) How does turning off the water while brushing our teeth impact our carbon footprint?

A)Positive

B)Negative

Water that goes down our drains and sewers must be processed through water treatment plants, even if the water is clean. Using only the amount of water you really need helps reduce your carbon footprint

How big is your carbon footprint? - energy star. (n.d.). Retrieved January 21, 2022, from https://www.energystar.gov/ia/products/globalwarming/downloads/GoGreen_Activities%20508_compliant_small.pdf

19) What is Carbon Handprint?

A carbon handprint is simply the positive environmental impact of a product or service throughout its life cycle.

Chris Stokel-Walker 10 March 2021, & Stokel-Walker, C. (n.d.). LCA? well-to-wheels (WTW)? carbon handprint? sustainable transport jargon explained. Journey to Zero. Retrieved January 21, 2022, from https://journeytozerostories.neste.com/sustainability/lca-well-wheels-ww-carbon-handprint-sustainable-transport-jargon-explained?gclid=CjwKCAiA0KmPBhBqEiwAJqKK43kTFi3sKpho3RJEBAFD7os-ECqSZmB6rcNyf94Co4WnzHDpSF52zBoCsdYQAvD_BwE

20) What is Carbon Footprint?

The quantity of carbon dioxide emitted into the atmosphere as a result of your personal energy demands is known as your carbon footprint.

What is your carbon footprint? The Nature Conservancy. (n.d.). Retrieved January 21, 2022, from <https://www.nature.org/en-us/get-involved/how-to-help/carbon-footprint-calculator/>

Recycling Questions & Answers

1. If you could recycle one plastic bottle you could light a bulb for
 - a. 6 mins
 - b. 60 mins
 - c. 6 hrs
2. You can reduce your rubbish by:
 - a. Buying cheaper items
 - b. Buying items with less packaging
 - c. Purchasing "buy one get one free" products
3. What is the best way to reduce the amount of paper that we use?
 - a. Use both sides of the paper
 - b. Put paper in the recycling bin
 - c. Make paper mache models
4. Where does our non-recycled rubbish go?
 - a. Into space
 - b. Landfill or incinerated
 - c. Into the sea
 - d. Recycling plant
5. How would you dispose of a book you no longer need?
 - a. Throw it in the bin
 - b. Recycle it
 - c. Burn it
 - d. Give it to someone else to read
6. What is recycling?
 - a. using old materials to make new ones
 - b. deposit of useful minerals
 - c. energy from the Sun
 - d. thick black liquid used for energy
7. Which will create least waste?
 - a. Fruit in a can
 - b. Fresh fruit
 - c. Fruit in a packet
8. If you photocopy on both sides you are
 - a. Recycling
 - b. Reusing
 - c. Reducing
9. Which recycling bin should we put the drinks cans (aluminium) in?
 - a. Paper
 - b. Glass
 - c. Plastic
 - d. Metal
10. What is NOT one of the 3 Rs?
 - a. Recycle
 - b. Remodel
 - c. Reuse
 - d. Reduce
11. When you are out in town and you have something to recycle, what do you do? Find the best option.
 - a. Find the correct recycling bin and recycle your item.
 - b. Throw it away in the garbage because public recycling bins do not exist.
 - c. Throw it away in the garbage because you can't rinse it out.
12. How long does it take for plastic to decompose in a landfill ?
 - a. 10 days
 - b. 89 years
 - c. 700 years
13. Recycling 1 ton of paper saves...
 - a. 17 tress
 - b. 7000 gallons of water
 - c. 4000 hours of electricity
 - d. all of above
14. What happens when I put things that are not recyclable in my recycling bin?
 - a. Nothing
 - b. it will get sorted out at the transfer station and be disposed of properly.
 - c. I have to pay a fine
15. why do we recycle?
 - a. Recycling protects our valuable planet.
 - b. Recycling saves clean air and clean water.
 - c. Recycling saves landfill space.
 - d. All of above

Recycling Questions & Answers

16. Why is it a good idea to recycle and reuse things?

- a. Because if we don't we might get in trouble.
- b. Because we need to take care of our Earth.
- c. Recycling is not a very good idea.

17. When I recycle, it means I'm:

- a. Throwing trash everywhere.
- b. Not throwing things away.
- c. I'm taking old or useless things to make new and useful things.

18. If you recycle one ton of paper, how many trees can you save?

- A. One
- B. Nine
- C. Seventeen
- D. Thirty-five

19. How many times can glass be recycled?

- a. None, glass can't be recycled!
- b. Once
- c. Four times
- d. Forever

Air Pollution Questions & Answers

- Air Pollution can be caused by...
 - chemicals.
 - burning fossil fuels or trash.
 - dust.
 - all of the above
- Can air Pollution effect us?
 - yes
 - no
- Which of the following is not true about Pollution?
 - Pollution happens when something harmful is added to the environment.
 - Pollution can cause some plants and animals to get sick or die.
 - People cause pollution.
 - People cannot reduce pollution
- What is air pollution?
 - Something that smells bad
 - Black smoke coming out of a chimney
 - A substance that is introduced into the air and which has harmful or poisonous effects
- Why children are more affected by outside air pollution?
 - Because children spend more time outside
 - Because children eat less vegetables
 - Because children have smaller lungs
- What is one of the ways people can reduce air pollution?
 - Create major forest fires
 - Use less energy, walk and ride bikes
 - Eat more meat to absorb the toxins
- What can you and Your Family Do For Cleaner Air?
 - Ride a bike!
 - Don't burn wood
 - Cut down on driving
- Climate change is harmful to health.
 - True
 - Wrong
- What causes air Pollution?
 - Cutting trees
 - Burning fuel
 - Walking
- What can you do to reduce air pollution?
 - Plant trees
 - Fly with airplane to everywhere
- Why is air Pollution bad?
 - It harms humans and animals
 - It is not bad!
- Which of the following causes air pollution?
 - smoke from factories
 - Burning fossil fuels
 - smoke from vehicles
 - All the above
- Which of the following can reduce vehicle air pollution?
 - Walk or cycle
 - not properly maintained vehicles
 - use own car
- Which of the following statement icorrect
 - Dirty air is good for health.
 - Air occupies empty spaces.
 - Air has no colour or taste
- What can you do to reduce air pollution?
 - Aa. Take more public transport
 - Recycling
 - All of the above
- Most air pollution results from human activities.
 - True
 - False
- Which is NOT one of the three types of pollution?
 - air
 - water
 - fire
- The types of pollution are...
 - landfills and recycling centers
 - plastic, paper, and metal
 - air, land, and wate
- How can you protect yourself from air pollution at home?
 - Ventilate your home by opening windows. Close windows near busy roads during rush hours
 - Keep your windows closed at all times

Bee Questions & Answers

1) How many legs has a bee?

- a. 2
- b. 4
- c. 6

2) How many wings does a bee have?

- a. 2
- b. 4
- c. 1

3) Where do bees live?

- a. In a hive
- b. In a honey country

4) In what season of the year are we likely to see the greatest number of bees flying?

- a. Summer
- b. Spring
- c. Autumn

5) Where do bees get food?

- a. From the flowers
- b. From Nectar in the flowers
- c. From honeycomb
- d. From the ground

6) How do bees get their food?

- a. They suck the honey out of the flowers
- b. They make it
- c. They suck the Nectar
- d. They take pollen and make honey from it

7) Do you think bees are of any value to us human beings?

- a. Yes, and in some countries bee stings cure people
- b. Yes, for they make honey and spread seed from the flowers
- c. Yes, and some people get the sting to make them better

8) How many species of bees exist?

- a. 20
- b. 1.000
- c. 20.000

9) Which Colours bees can't see?

- a. Red
- b. Green
- c. Blue

10) How many bees can an average beehive hold?

- a. 50.000
- b. 10.000
- c. 100.000