

Modern Marvels – Water ANSWER KEY

1. More than **70** % of your body is water.
2. **70%** of the earth's surface is covered with water. About **2.5** % of water on earth is fresh. **1 1/2** % of this is held in polar glaciers, leaving only **1** % of water on earth available for drinking.
3. **25** % of all bottled water sold in the United States is just tap water.
4. The **springhouse** keeps contaminants from getting into the spring.
5. The pump house has a holding tank in it with a capacity of **500** gallons.
6. There is a **14,000** gallon tank at the production facility.
7. **Ozone (unstable form of oxygen)** is used to purify the spring water for bottling.
8. At Iceland Springs, the **lava rock** in the ground acts as a natural filter.
9. Sacramento municipal water is used for bottled water because of all the minerals in it. **Sand** and **charcoal** filters are used to start the purification process.
10. Animal **bladders** and **gourds** were used to carry water in earlier times.
11. The city of **Venice** used sand filters to purify water.
12. In Europe during the Middle Ages, it was unfashionable to drink water because **it was dirty**
13. The wealthy drank **small beer (beer with an alcohol content just high enough to kill pathogens)**.
14. Europeans finally found clean fresh water **in the 18th and 19th centuries in the Pristine Springs**.
15. In 1913, engineers discovered how to **disinfect** water for drinking.
16. Water is a **\$10 billion** industry today.
17. Water expands about **9** % as it freezes.
18. Glacial acetic acid **sinks** when frozen.
19. The H₂O molecule looks kind of like **Mickey Mouse ears**.
20. Surface tension allows the **water bug** to walk on water.
21. Almost everything except **oil** dissolves in water.
22. 1 in 6,600 of water molecules is called heavy water because it has **hydrogen that are heavier than normal**.
23. Bruce Power puts about 2000 tons of water into Lake Huron. About **2 oz** of this is heavy water.

24. Sound moves much slower in water than in air. The speed of sound in the air is **4500 ft/sec**
25. There is about **50 million** acres of farmland in the United States.
26. The aquifer contains about a **quadrillion (1,000,000,000,000,000)** gallons of water.
27. Center pivots used for crop irrigation move in a **clockwise** direction.
28. To water the 130 acres, it takes about **3** days.
29. 60% of the irrigated cropland in the United States is irrigated with **gravity** irrigation.
30. Mesopotamia, the site of present day Iraq, first invented **gravity irrigation**.
31. Farmers in the early 1900s got their water from the aquifers by the use of **windmills**.
32. In **1931**, the American Dust Bowl started and lasted until 1939.
33. In **1952**, the first center pivot watering system was patented.
34. About **5 trillion** gallons of water is removed from the aquifer each year.
35. One acre of corn releases about **4,000** gallons of water into the air through transpiration each day.
36. The fountain at the Bellagio Hotel and Casino covers about **8** acres.
37. The smallest sprinkler head in the fountain is called the **nano-shooters**.
38. The mini - shooter can shoot water about **150** feet into the air.
39. The super shooter can shoot water **250 feet** high.
40. The underwater robots that control the sprinklers are called **oarsmen**.
41. At any given time, the fountains at the Bellagio can shoot **17,000** gallons of water into the air.
42. On **July 7, 2003** (date) the Opportunity went to Mars.
43. The Martian poles have been found to contain **frozen water**.
44. There is evidence of a **habitat environment** on Mars.
45. In **2006**, Saturn's moon produced **260** mile vapor plumes.
46. **Water** is the most important treasure we have on this planet and is vital for all life on earth.