

1. What is the primary source of energy that drives the entire water cycle on Earth?
2. If a small amount of water is left in an open bottle, it will eventually disappear. If the same amount of water is left in a sealed bottle, it will not disappear. Explain this observation using the concept of states of water.
3. Why does steam cause more severe burns than boiling water at the same temperature (100 degrees Celsius)?
4. Imagine you have a glass of water and you want to make it evaporate faster without changing the amount of water or heating it. Which of the following actions would best achieve this?
5. During which process does water change from a liquid to a gaseous state without reaching its boiling point?
6. A student observes that water spilled on the floor dries faster when a fan is switched on. Which factor affecting evaporation is demonstrated here?
7. Explain why a river might have a lower water level during a prolonged drought.
8. If you leave a shallow dish of water and a deep bucket of water, both containing the same volume of water, in the sun, which one will evaporate faster and why?
9. During the water cycle, water from oceans and rivers changes into water vapour. What is this process called, and what is the primary energy source for it?
10. A scientist is studying a newly discovered planet. They observe that water on this planet boils at 80 degrees Celsius and freezes at 5 degrees Celsius. How does this compare to Earth's water properties, and what might cause such a difference?
11. Why do puddles disappear faster on a hot, sunny day compared to a cool, cloudy day?
12. A block of ice is taken out of a freezer and left on a table. After some time, a puddle of water forms around it. What energy transformation is primarily responsible for this change?
13. Which statement accurately describes the arrangement of water molecules in its gaseous state (water vapour) compared to its liquid state?
14. Which of the following is an example of condensation?
15. What is the term for the process where plants release water vapour into the atmosphere?
16. Why do clouds typically form high up in the atmosphere instead of near the ground?
17. What role do mountains often play in the water cycle, particularly in causing precipitation on one side?
18. What happens to the total amount of water on Earth as it continuously cycles through different states and locations?
19. Which state of water has no definite shape and no definite volume?

20. Which statement is true regarding the volume of water when it changes from liquid to solid (ice)?