THE WATER CYCLE · PART 7 OF 8 · AGES 11–16

Water Cycle Myths

Eight things many people believe about water, and what scientists have found instead.

✕ MYTH **Clouds are made of water vapour.** 1

✓ FACT Water vapour is an invisible gas. A cloud is a mass of tiny liquid droplets or ice crystals that formed when vapour cooled and condensed onto specks of dust, salt or smoke.

✕ MYTH **The white 'steam' above a boiling kettle is water vapour.** 2

✓ FACT The white plume is made of tiny liquid droplets. The vapour leaving the kettle is invisible; you only see it once it cools in the room and condenses.

✕ MYTH **Water only evaporates when it boils.** 3

✓ FACT Water evaporates at any temperature, just more slowly when it is cold. Puddles dry on cool days, and even frozen washing slowly dries as ice turns to vapour.

✕ MYTH **Groundwater is stored in huge underground lakes and rivers.** 4

✓ FACT Most groundwater fills the tiny pores, cracks and spaces between grains of rock, sand and soil, like the water that seeps into a hole dug in beach sand.

✕ MYTH **The water cycle is a neat circle that every drop follows in order.** 5

✓ FACT Water takes many paths: it can fall straight back into the sea, soak underground or freeze into ice. It stays about 9 days in the air but around 3,200 years in the ocean.

✕ MYTH **Raindrops are shaped like teardrops.** 6

✓ FACT Small drops are nearly round. Drops of 2–3 mm are flattened underneath, like the top of a hamburger bun. Drops over about 4.5 mm become parachute-shaped and break apart.

✕ MYTH **Dew falls from the sky at night, like a very light rain.** 7

✓ FACT Dew forms where you find it. At night grass, leaves and cars cool down, and when they reach the dew point, water vapour in the air touching them condenses into drops.

✕ MYTH **One day we will use up all of Earth's water.** 8

✓ FACT The water cycle keeps recycling water. The real risk is running short of fresh water in one place: only about 2.5% of Earth's water is fresh, and over-pumped wells can run dry.

If you can see it, it is not vapour

Water vapour is a gas and is always invisible. Clouds, fog and the white plume from a kettle are all made of tiny liquid droplets or ice crystals that formed when vapour cooled.

NEXT IN THE SERIES
8. Water Cycle Quiz: Test Yourself

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