Name: _____ **Date:** _____

Answer Key: Ocean Explorer Challenge: Master the Water Cycle in Action

Aspiring hydrologists will design solutions for thirsty plants and track salt-free rain to understand how our planet's biggest systems support life.

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1. If you are a cloud floating over a salty ocean and you start to rain, what kind of water comes out of you?

Answer: B) Fresh water with no salt

When water evaporates from the ocean to form clouds, the salt stays behind in the sea, meaning rain is always fresh.

2. Imagine you are a tiny drop of water in the ocean. To fly up into the sky, you need the ___ to warm you up.

Answer: C) Sun

The Sun provides the heat energy necessary to turn liquid water into water vapor through evaporation.

3. A puddle on the sidewalk can eventually become part of a wave in the Pacific Ocean.

Answer: A) True

Through the water cycle, water travels from puddles to rivers and eventually flows into the massive oceans.

4. You want to build a machine that collects water from the air. Which part of the water cycle are you trying to copy?

Answer: B) Condensation

Condensation is the process where water vapor (gas) turns back into liquid water, like dew on grass or water on a cold glass.

5. If a mountain is very tall and cold, the water falling from a cloud will likely be ___.

Answer: B) Snow

When the air is cold enough, precipitation falls as solid snow instead of liquid rain.

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6. The water you drink today could be the same water a dinosaur drank millions of years ago.

Answer: A) True

Earth recycles the same water over and over through the water cycle; we don't get 'new' water from space.

7. Why does a river keep flowing even if it hasn't rained in two days?

Answer: B) Water is stored in the ground and melting ice

Rivers are fed by groundwater and melting snowcaps, which act as storage for the water cycle.

8. Plants 'breathe' out water vapor into the air. This helps form ___ high in the sky.

Answer: B) Clouds

Transpiration from plants adds water vapor to the atmosphere, which then condenses to form clouds.

9. Most of the water on Earth is fresh and ready for us to drink immediately.

Answer: B) False

About 97% of Earth's water is salty ocean water; only a very small amount is fresh water we can use.

10. Which of these is the 'engine' that keeps the whole water cycle moving around the world?

Answer: A) Wind and Heat

The sun's heat causes evaporation and the wind moves clouds to different places, keeping the cycle active.