

4 Step Worksheet Answer Key PDF

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Part 1: Building a Foundation

What is the primary process by which water vapor is formed from liquid water?

undefined. A) Precipitation

undefined. B) Condensation

undefined. C) Evaporation ✓

undefined. D) Collection

The primary process is evaporation.

Which of the following are stages of the water cycle? (Select all that apply)

undefined. A) Transpiratio ✓

undefined. B) Collection ✓

undefined. C) Photosynthesis

undefined. D) Evaporation ✓

The stages include transpiration, collection, and evaporation.

Define the water cycle in your own words.

The water cycle is the process of water moving through different states and locations in the environment.

List the four main stages of the water cycle.

1. Stage 1

Evaporation

2. Stage 2

Condensation

3. Stage 3

Precipitation

4. Stage 4

Collection

The four main stages are evaporation, condensation, precipitation, and collection.

Which stage of the water cycle involves water vapor cooling and changing back into liquid form?

undefined. A) Evaporation

undefined. B) Condensation ✓

undefined. C) Precipitation

undefined. D) Collection

The stage is condensation.

Part 2: comprehension and Application

How does deforestation impact the water cycle? (Select all that apply)

undefined. A) Increases transpiration

undefined. B) Reduces transpiration ✓

undefined. C) Increases surface runoff ✓

undefined. D) Enhances water quality

Deforestation reduces transpiration and increases surface runoff.

Explain how precipitation contributes to the water cycle.

Precipitation returns water to the Earth's surface, replenishing rivers, lakes, and groundwater.

If a city experiences a sudden increase in rainfall, which part of the water cycle is directly affected?

undefined. A) Evaporation

undefined. B) Condensation

undefined. C) Precipitation ✓

undefined. D) Collection

The part affected is precipitation.

In what ways can urbanization alter the natural water cycle? (Select all that apply)

undefined. A) Increases infiltration

undefined. B) Decreases infiltration ✓

undefined. C) Increases surface runoff ✓

undefined. D) Decreases evaporation

Urbanization decreases infiltration and increases surface runoff.

Describe a real-world scenario where human activity has altered the water cycle, and explain the consequences.

Human activities such as agriculture and urbanization can disrupt the water cycle, leading to issues like flooding or drought.

Part 3: Analysis, Evaluation, and Creation

Which of the following best describes the relationship between evaporation and condensation in the water cycle?

undefined. A) They are unrelated processes.

undefined. B) Evaporation follows condensation.

undefined. C) Condensation follows evaporation. ✓

undefined. D) They occur simultaneously.

Condensation follows evaporation in the water cycle.

Analyze the effects of pollution on the water cycle. Which of the following are potential impacts? (Select all that apply)

undefined. A) Contaminated precipitation ✓

undefined. B) Increased evaporation rates

undefined. C) Reduced water quality ✓

undefined. D) Enhanced cloud formation

Pollution can lead to contaminated precipitation and reduced water quality.

Break down the process of how water from the ocean becomes part of a river through the water cycle.

Water evaporates from the ocean, condenses into clouds, precipitates as rain, and flows into rivers.

Which intervention would most effectively restore balance to a disrupted water cycle in a deforest area?

undefined. A) Increasing urban development

undefined. B) Planting new trees ✓

undefined. C) Reducing water usage

undefined. D) Enhancing industrial activities

Planting new trees would be the most effective intervention.

Evaluate the following strategies for mitigating human impact on the water cycle. Which are likely to be effective? (Select all that apply)

undefined. A) Implementing green roofs ✓

undefined. B) Expanding agricultural land

undefined. C) Creating rain gardens ✓

undefined. D) Increasing fossil fuel consumption

Implementing green roofs and creating rain gardens are effective strategies.

Propose a comprehensive plan to address the negative impacts of urbanization on the water cycle, including specific actions and expected outcomes.

A comprehensive plan could include green infrastructure, improved drainage systems, and community education.