

# Assignment Worksheet

**\*\*Environmental Science 101: The Water Cycle Assignment\*\***

**\*\*Instructions:\*\*** Please answer all questions to the best of your ability.

**\*\*Section 1: Easy Level Questions\*\***

**\*\*Multiple Choice (Choose the best answer):\*\***

1. What is the process of water changing from a liquid to a gas called?

a) Condensation b) Precipitation c) Evaporation d) Collection

2. Which of the following is a form of precipitation?

a) Clouds b) Wind c) Rain d) Sunlight

3. What is the process of water vapor turning into a liquid called?

a) Evaporation b) Transpiration c) Condensation d) Infiltration

4. Where does the water cycle primarily get its energy from?

a) The Moon b) The Earth's core c) The Sun d) Wind

5. What is the accumulation of water, like in lakes and rivers, called?

a) Evaporation b) Precipitation c) Runoff d) Collection

**\*\*Descriptive Questions:\*\***

1. Briefly describe what the water cycle is.
2. Name two places where water is stored on Earth.
3. What is runoff?

**\*\*Section 2: Medium Level Questions\*\***

**\*\*Multiple Choice (Choose the best answer):\*\***

1. What role does transpiration play in the water cycle?  
a) Cooling the Earth b) Releasing water vapor from plants c) Forming clouds d) Causing rain
2. Which process involves water soaking into the ground?  
a) Runoff b) Infiltration c) Evaporation d) Condensation
3. What is the primary difference between evaporation and transpiration?  
a) Evaporation only happens at night b) Transpiration only happens near oceans c) Evaporation is from open water, transpiration is from plants d) There is no difference
4. Which of the following contributes MOST to cloud formation?  
a) Gravity b) Solar radiation c) Condensation nuclei d) Wind speed
5. What type of cloud is most commonly associated with heavy precipitation?  
a) Cirrus b) Stratus c) Cumulus d) Cumulonimbus

**\*\*Descriptive Questions:\*\***

1. Explain the relationship between evaporation and condensation in the water cycle.
2. Describe how human activities can impact the water cycle.
3. Explain the difference between surface runoff and groundwater flow.

**\*\*Section 3: Hard Level Questions\*\***

**\*\*Multiple Choice (Choose the best answer):\*\***

1. How does deforestation affect the water cycle?  
a) Increases precipitation b) Decreases evapotranspiration c) Increases infiltration d) Decreases runoff
2. What is the term for the total amount of water vapor in the atmosphere?  
a) Humidity b) Precipitation c) Evaporation d) Condensation
3. What impact does climate change have on the global water cycle?  
a) Decreases overall precipitation b) Increases overall evaporation c) Intensifies extreme weather events d) Stabilizes water distribution
4. What is the role of condensation nuclei in precipitation formation, and what are some examples of these nuclei?  
a) Absorbing solar radiation; methane b) Providing a surface for water vapor to condense on; dust, salt c) Accelerating evaporation; carbon dioxide d) Preventing cloud formation; ozone
5. Which of the following feedback loops is associated with melting ice and increased water vapor, leading to further warming?

a) Negative feedback loop b) Positive feedback loop c) Neutral feedback loop d) Inertial feedback loop

**\*\*Descriptive Questions:\*\***

1. Discuss the effects of urbanization on the water cycle, considering factors like impermeable surfaces and drainage systems.
2. Explain how variations in the Earth's tilt and orbit (Milankovitch cycles) can affect long-term patterns in the water cycle.
3. Describe how scientists use models to predict future changes in the water cycle, considering the complexities of climate change.