

Name:

Date:

Class:

# Water Cycle Worksheet

**Group roles: There are three people in your expert group. Each member should choose one of these roles to make sure your group is working productively:**

- Timer - keeps track of time and keeps the group work moving forward
- Reader - reads the instructions and rubrics for the group
- Ambassador - asks questions that the group is unsure of.

**Instructions:** As a team, watch this video

(<https://www.youtube.com/watch?v=bdnUWRmCMD8>) which introduces the human impact on the water cycle. Next read the information provided at this link

(<https://www.noaa.gov/education/resource-collections/freshwater/water-cycle>) to learn about the water biogeochemical cycle and then individually answer the questions below. Once each team member has answered these questions, discuss your answers as a group. If needed, additional research links are provided at the bottom of this document.

1. What is a biogeochemical cycle?
  
  
  
  
  
  
  
  
  
  
2. When does water move from a biotic factor to an abiotic factor?
  
  
  
  
  
  
  
  
  
  
3. When does water move from an abiotic factor to a biotic factor?
  
  
  
  
  
  
  
  
  
  
4. As a group, draw a picture of the water cycle. Each group member should contribute to the poster, for example: one member draws the images, one member writes the labels, one member draws the arrows. Arrows showing the movement of water in your poster should be drawn in blue. The poster should include:
  - Label the following terms on your poster: evaporation, condensation, precipitation, surface runoff, transpiration, ground water, root uptake
  - The following images should be shown on your poster: plants, animals, ocean/lake (please add more images as you see fit)
  - Identify water moving from a biotic factor to an abiotic factor
  - Identify water moving from an abiotic factor to a biotic factor
  - Include pictures and labels for at least three ways humans impact this cycle
  - Blue arrows showing the flow of water through the cycle

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5. Answer the following questions individually and then discuss your ideas with your group.
  - a. Describe how a building/structure could fit into the water cycle - you have creative license; this can be realistic or hypothetical. You should have at least 3 examples in the description.
  
  
  
  
  
  
  
  
  
  
  - b. Write an example and explanation for at least 3 ways humans can reduce their impact on the water cycle. How does your building design decrease human impact on the water cycle?
  
  
  
  
  
  
  
  
  
  
  - c. If possible, identify any Intersections between the water cycle and other cycles.

Links for extra water cycle research:

<https://courses.lumenlearning.com/biology2xmaster/chapter/biogeochemical-cycles/>

<https://openoregon.pressbooks.pub/envirobiology/chapter/3-2-biogeochemical-cycles/>