Name: Date: Class:

## **Carbon Cycle Worksheet**

Group roles: There are three people in your expert group. Each member should choose one of the following roles to make sure your group works 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 (<a href="https://www.youtube.com/watch?v=jOht6qmuG-k">https://www.youtube.com/watch?v=jOht6qmuG-k</a>) which introduces the human impact on the carbon cycle. Next read the information provided at this link (<a href="https://scied.ucar.edu/learning-zone/earth-system/biogeochemical-cycles">https://scied.ucar.edu/learning-zone/earth-system/biogeochemical-cycles</a>) to learn about the carbon 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?
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2. W	Vhen does	carbon	move f	rom a	biotic	factor t	o an	abiotic	factor?
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3. When does carbon move from an abiotic factor to a biotic factor?

- 4. As a group, draw a picture of the carbon 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 carbon in your poster should be drawn in brown. The poster should include:
  - Label the following terms on your poster: photosynthesis, cellular respiration, carbon dioxide, glucose
  - The following images need to be included on your poster: plants, animals, sun (please add more images as you see fit)
  - Identify carbon moving from a biotic factor to an abiotic factor
  - Identify carbon moving from an abiotic factor to a biotic factor
  - Include pictures and labels for at least three ways humans impact this cycle
  - Brown arrows showing the flow of carbon in the cycle





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	5.	An a.	swer the following questions individual Describe how a building/structure colicense; this can be realistic or hypodescription.	ould fit into the carbon cyc	le - you have creative

b.	Write an example and explanation for at least 3 ways humans can reduce their impact
	on the carbon cycle. How does your building design decrease human impact on the
	carbon cycle?

c. Identify any Intersections between the carbon cycle and other cycles.

Links for extra carbon cycle research:

https://nca2014.globalchange.gov/report/sectors/biogeochemical-cycles/https://courses.lumenlearning.com/biology2xmaster/chapter/biogeochemical-cycles/https://openoregon.pressbooks.pub/envirobiology/chapter/3-2-biogeochemical-cycles/Cycle and human impact video



