

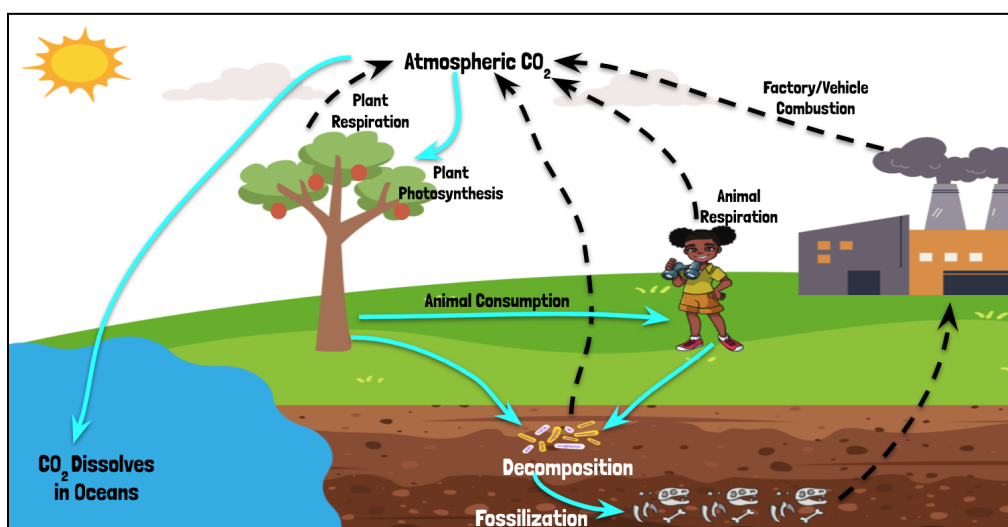
Name:

Date:

Period:

STUDENT HANDOUT

INTRODUCTION: Biogeochemical cycles are natural pathways by which important nutrients circulate throughout living and nonliving components of the environment. Without them, nutrients would have been completely used up long before you ever existed! The carbon cycle is one of Earth's major biogeochemical cycles. The diagram below summarizes all of the major processes involved in the carbon cycle. Arrows that point downward are absorbing (removing) carbon from the atmosphere, while arrows that point upward are releasing (adding) carbon into the atmosphere.



In this game, you will simulate the carbon cycle by pretending you are a carbon atom traveling through the environment. You will start at one of seven locations (atmosphere, plants, animals, soil, fossils, surface ocean, or deep ocean), and who knows where your journey will take you!

MATERIALS RECEIPT:

Foam Dice (at least 7)	\$8.00 (24pk)
Station Signs (7)	---
Student Passport Sheet	---
TOTAL	\$8.00

INSTRUCTIONS:

1. Record the station you start at as the "Starting Location" on the student passport.
2. Roll the dice, and determine where you are going depending on the number you roll.
3. Record where you are going as "Trip #1" and record how you got to the new location.
4. After recording everything for Trip #1, travel to the new location.
5. Repeat steps 2 to 4 for the remaining 9 trips.



The Carbon Cycle Game

PASSPORT

Name:

Starting Location:

Where did you go?	How did you get there?
Trip #1:	
Trip #2:	
Trip #3:	
Trip #4:	
Trip #5:	
Trip #6:	
Trip #7:	
Trip #8:	
Trip #9:	
Trip #10:	

DISCUSSION QUESTIONS:

1. Of the seven locations, was there a location you never made it to? What was that location?
2. Did you ever make it back to where you started? Why or why not?
3. Was there a location that you noticed you and others were spending the most time at? Why do you think this happened?