This discussion will help you focus your thinking about where information that goes into a systems diagram comes from, and it will help you plan for the assigned homework.

In this discussion, focus on these two items that you will integrate into your homework:

- The areas of The Carbon Cycle which you feel least secure about (i.e. which do a poor job of representing what you are trying to represent or which you do not fully understand). At least 5 specific areas should be identified in this section.
- The type of knowledge you believe would be necessary to gain to improve the areas of the model you are least secure about, and some thoughts about who generates this type of knowledge (i.e. geologist, chemist, political scientist, etc.).

Designate one member of the group to take notes during your discussion and one member of the group to report out to the whole class about your results.

With the members of your group, identify and discuss **two questions** you have about the system you have been investigating. Categorize your questions into the appropriate type, below, and note them in this table:

TYPE OF QUESTION	GROUP RESPONSES
Those that can be answered by another member of the group.	*List the questions and who can answer them.*
Those which can be answered within the context of this course, either from past or future classes.	*List the questions and when in the course they were/will be covered.*

Those which can be answered by taking a specific course about which the students are aware.	*List the questions and which course(s) covers this material.*
Those which can only be answered by researching the primary literature.	*List the questions and propose a source to look in to find answers.*
Other, including specific topics designated by the instructor or those which do not easily fit into a defined category.	*List the questions and how you could proceed to address them.*

In addition, please consider the following questions for a large-group discussion (feel free to jot down notes in the space provided before/during the discussion):

- What understanding of The Carbon Cycle do you gain from using the systems diagram that you would not get by looking only at individual relationships within the system?

- Which discipline or disciplines contribute the most to your current understanding of The Carbon Cycle, and which one(s) will be most instrumental in helping to increase your understanding of it?

- How has your understanding of The Carbon Cycle grown or changed by labeling components and/or by including quantitative measures of reservoirs, fluxes, and/or values that change with time?

- Would the use of a system diagram such as The Carbon Cycle Diagram help you address questions about the impact of a change in policy, and thus human activity, on The Carbon Cycle? For example, what would happen if coal-fired power plants were suddenly banned, or if regulations on fisheries were suddenly lifted?