# Computers: Carbon Cycle

**Go to the website: http://www.windows2universe.org/earth/climate/carbon_cycle.html**
**YOU are now a Carbon Atom! Good luck!**

1. How many megatons of carbon are released into the atmosphere as fossil fuels each year?

2. **Atmosphere**:
   What form of Carbon are you?
   How much is naturally in the atmosphere?
   Since the burning of fossil fuels, how much has the amount gone up in the last 150years?
   What does the amount of CO2 going up do to our planet?

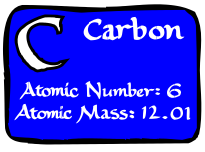
3. **Land Plants:**
   What happened to you?
   What is the process called that turns carbon into energy in plants?
   What happens during plant respiration?

4. **Soil**:
   What happened to you?
   What is detritus?
   How much carbon is stored in the soil?
   How is carbon recycled back into the atmosphere?

5. Quiz Question: Soils store about _____ of the Earth's total carbon.

6. **Surface Ocean**:
   What are the three ways you go here?
   Why is the ocean so important in the carbon cycle?
   What temperature water absorbs more carbon? (*Warmer or Colder*)
   THINK: Explain how your answer above would be affected by climate change…

7. Quiz Question: How much carbon does the surface ocean absorb from the atmosphere each year?



8. **Deep Ocean**:
   Describe how the deep ocean gets carbon.

   How long will carbon stay in the deep ocean?

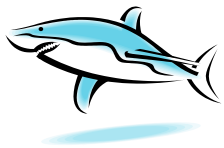
   How much carbon does the deep ocean hold?

9. Quiz Question: The deep ocean accounts for more than _____ of the Earth's carbon.

10. **Marine Life**:
    What are phytoplankton?

    How do phytoplankton use carbon?

    Describe the role of carbon and the survival of marine life.



**Analysis Questions:**

11. If you were a true carbon atom would your journey ever end?

12. Was everyone's carbon journey the same? Why not?

13. Explain the consequences of burning more fossil fuels?

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## Part 2:

**Click on "Learn More About the Carbon Cycle".**
**It should take you to this site… http://www.windows2universe.org/earth/Water/co2_cycle.html**

1. List the places where carbon is found on Earth.

2. Describe why carbon is important.

3. Explain why carbon is sometimes hazardous.