

Title: The carbon Cycle

Word Study

Fill in the blanks using the words.

| | | | | |
|------|------|-------|-----------|-----------|
| acid | bond | solar | weathered | limestone |
|------|------|-------|-----------|-----------|

1. Solar energy comes from the sun.
2. The stones in the river are smooth because they have been weathered by the water.
3. Limestone is very soft, so people don't build houses out of it.
4. You have to be careful with acid because it can burn you.
5. I'm not sure which elements oxygen can bond with.

Reading Comprehension

A. Circle T for true or F for false.

1. All living things have some carbon in them. T / F
2. Water is always a weak acid. T / F
3. The amount of CO₂ in the air these days is out of balance. T / F
4. CO₂ is the only greenhouse gas. T / F
5. Plants take in CO₂ and produce more carbon. T / F

B. Circle the correct word(s).

1. When we burn carbon, (oxygen / soot) is left behind.
2. Carbon dioxide is an example of a (compound / element).
3. Some animals use carbon to build their (shells / homes).
4. Burning fossil fuels (releases / captures) carbon dioxide into the air.
5. When plants die, their carbon is returned to the (soil / air).

C. Choose the best answer.

1. What does the book say about diamonds?

- a. They are very expensive.
- b. They are extremely common.
- c. They are fairly soft.
- d. They are pure carbon.

2. What are fossil fuels made of?

- a. Heated diamonds
- b. Dead plants and animals
- c. Coal and oil
- d. New forms of carbon

3. Why is it good to have some CO₂ in the air?

- a. Because humans need it to breathe
- b. Because animals need it for food
- c. Because it helps make it rain
- d. Because it traps heat from the sun

4. What can rain do to rocks like limestone over time?

- a. Wear them down and cause them to release carbon
- b. Make them cleaner and better looking
- c. Cause them to grow and expand
- d. Allow plants and trees to grow on them

5. Which of the following best describes the carbon cycle?

- a. It is the how carbon moves between living and nonliving things.
- b. It is the way in which plants use carbon to make sugar.
- c. It is the way that rocks break down and put carbon into the air.
- d. It is how fossil fuels are made.

Summary

Fill in the blanks with the words.

| | | | | |
|------------|--------------|-------|-----------|---------|
| greenhouse | fossil fuels | decay | compounds | element |
|------------|--------------|-------|-----------|---------|

Carbon is a(n) element. This means it is made up of just one kind of atom. And it is in every living thing on earth. Carbon is also found in many non-living things, like rocks. Fossil fuels, which we use to make gas and energy, are made of carbon. So are diamonds. Carbon can combine with other elements to make compounds. Carbon often combines with oxygen to create CO₂. This is a(n) greenhouse gas found in the air. It keeps the earth warm. However, too much of it can hurt the environment. There are many ways carbon gets released into the air. This can sometimes take millions of years. Once this happens, the carbon can be taken in by plants. Plants use the CO₂ to make food that animals eat. Then those living things die and decay. In this way, the carbon returns to the earth. This is the carbon cycle.