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Initials

## Environmental Literacy Carbon Assessment: --- Elementary School Level, Form B ---

Science is easier to understand if you can make connections between what you know now and the new ideas that you are studying. This is a test that will help us to understand what you know now. Please answer these questions as carefully and completely as you can. If you are not sure of the answer, please write about any thoughts that you have. If you can help us to understand how you think about these questions, then we can do a better job of explaining science in ways that make sense to you.

Please put your initials (not your full name) in the boxes

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First Middle Last

Date \_\_\_\_\_

Class \_\_\_\_\_ Teacher \_\_\_\_\_

1. A burning candle is put into an air-tight container. After some time, the candle stopped burning.



a. How does the air change while the candle is burning?

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b. As the candle burns, it gets shorter in height. Where does the wax that used to be part of the candle go after it melts and is burned? Please explain your answers.

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2. A small oak tree was planted in a meadow. After 20 years it has grown into a big tree, weighing 250 kg more than when it was planted. What did the tree need in order to gain more and more weight? Please circle Yes or No for each of the following things and explain your choices.

			
A small oak tree		A big oak tree weighing 250 kg more than it was planted	

Things	Does the tree need it to grow?	If the tree needs it, how does the tree use it?
Sunlight	Yes    No	
Soil	Yes    No	
Water	Yes    No	
Air	Yes    No	

3. Jared, the Subway® man, lost a lot of weight by eating low calorie subway sandwiches. Where did the mass of his fat go (how was it lost)?



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4. A scientist made three groups A, B, and C, like the following:

- A. Sugar, meat, bread
- B. Water, limestone, sand
- C. Coal, gasoline, wood

a. What makes each group go together?

Group A:
Group B:
Group C:

b. Why would water go with limestone and sand rather than sugar and meat?

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c. Does it seem to you that groups A and C have anything in common?

Circle one: Yes / No

Please explain your answer.

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5. When an apple is left outside for a long time, it rots.



a. What causes the apple to rot?

b. The weight of the apple decreases as it rots. What do you think happens to the matter or stuff that was once in the apple?

c. Is there energy involved when the apple rots?

Circle one: Yes / No

Please explain your answer.

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6. When the baby was five months old, she weighed 22 lb. After 7 years, the tiny baby has grown into a big girl, weighing 50 lb. What did the baby need in order to gain more and more weight? Please circle Yes or No for each of the followings and explain your choices.

	
<p>The baby weighed 22 lb when she was 5 months old.</p>	<p>The baby has grown into a big girl, weighing 50 lb.</p>

Things	Does it help the baby to grow?	If it helps the baby to grow, how does the baby's body use it?
Sunlight	Yes    No	
Water	Yes    No	
Air	Yes    No	
Food	Yes    No	
Exercise	Yes    No	

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7. What does a person need in order to run? Please circle Yes or No for each of the following and explain your choices.



Things	Does the person need it to run?	If the person needs it to run, how does the person use it?
Food	Yes    No	
Water	Yes    No	
Air	Yes    No	
Energy	Yes    No	
Sleep	Yes    No	

8. Why do people use gasoline instead of water to run their cars?

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9. You are playing outside in a cold winter. You find a stone on the ground. When you pick up the stone, you find that the stone is very cold. Why can you keep warm in a cold day, but a stone cannot?

10. Explain how are the following living things connected with each other:

- (a) Grass.
- (b) Cows.
- (c) Human beings.
- (d) Decomposing bacteria.

11. Some people say that cutting down trees in a forest will increase global warming. Do you agree? Please explain why.