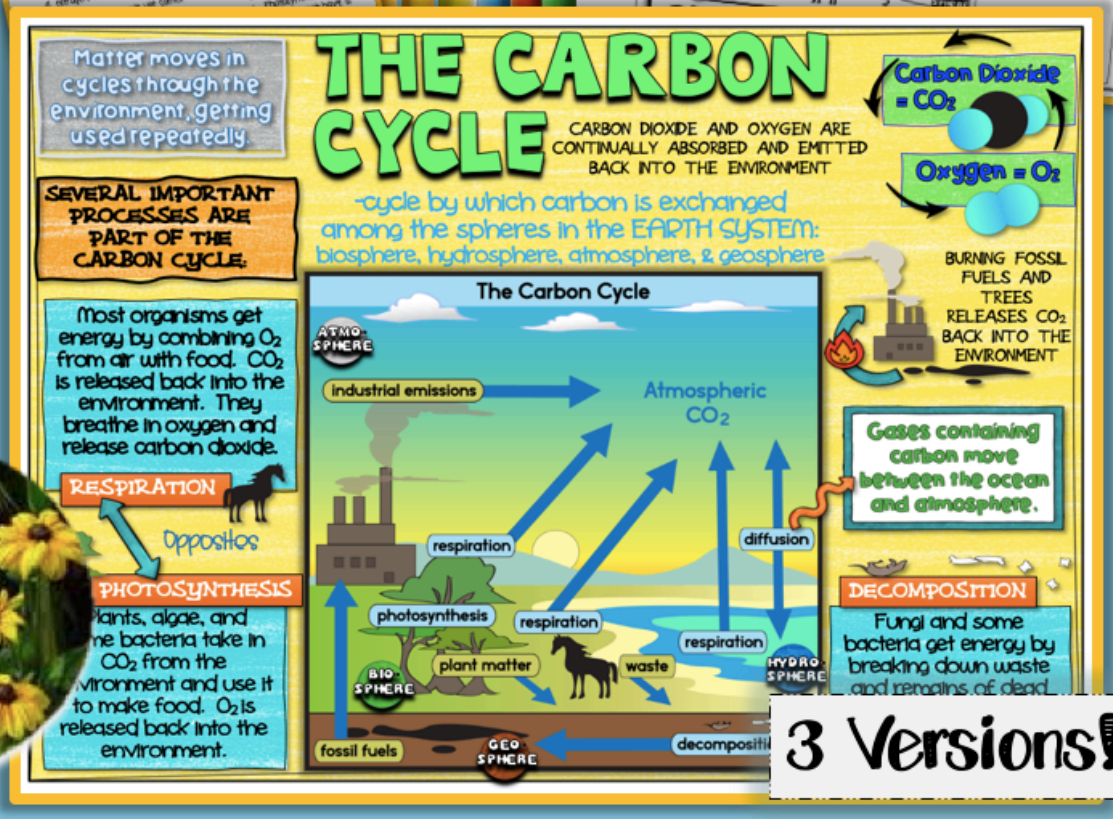
NGSS Aligned

Squiggle Sheets

Black-Eyed Susan Science

The Carbon Cycle



3 Versions!

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Thank you for your support and interest in Black-Eyed Susan Science! Creating practical, fun, and engaging activities is my goal. I hope you find this resource useful and I look forward to positive feedback.

Please contact me with any questions, concerns, or comments at blackeyedsusanscience@gmail.com.

THE CARBON CYCLE

Matter moves in cycles through the environment, getting used repeatedly.

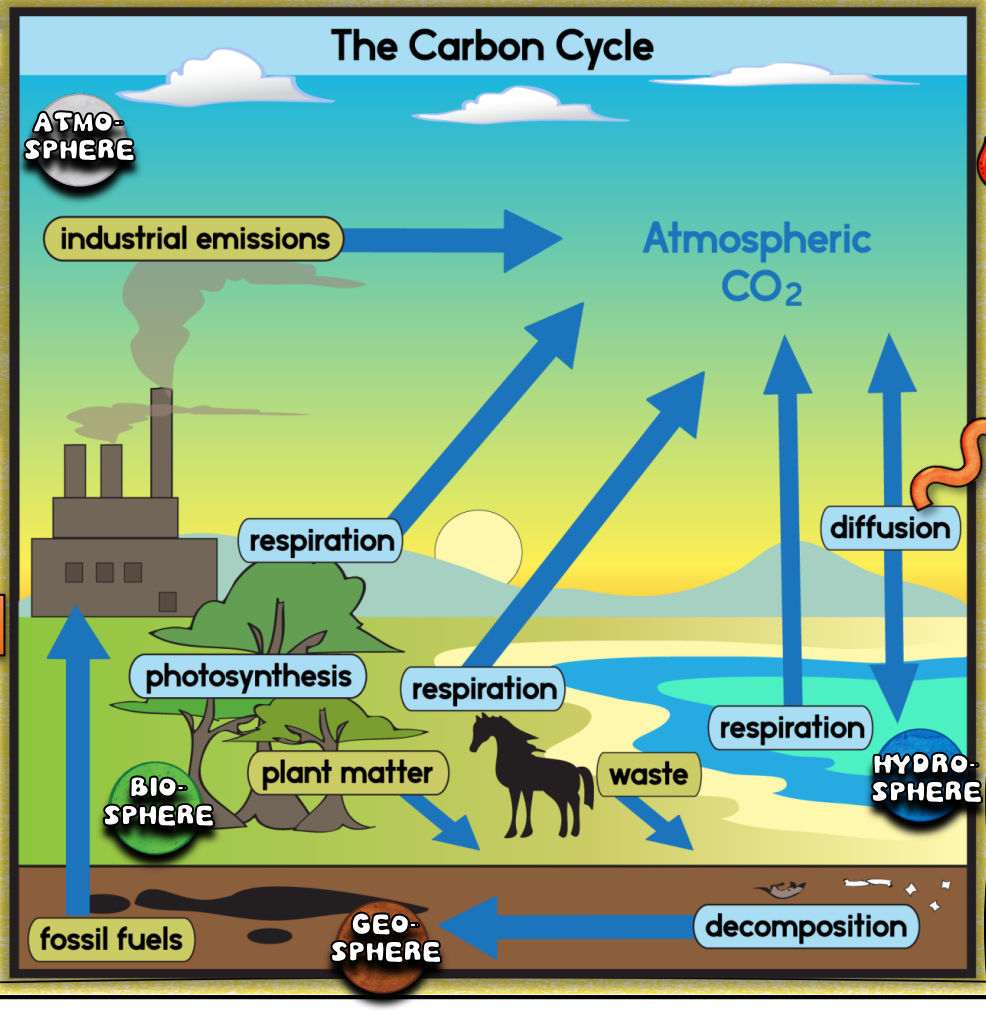
CARBON DIOXIDE AND OXYGEN ARE CONTINUALLY ABSORBED AND EMITTED BACK INTO THE ENVIRONMENT

Carbon Dioxide = CO_2

Oxygen = O_2

-cycle by which carbon is exchanged among the spheres in the EARTH SYSTEM: biosphere, hydrosphere, atmosphere, & geosphere

SEVERAL IMPORTANT PROCESSES ARE PART OF THE CARBON CYCLE:



Most organisms get energy by combining O_2 from air with food. CO_2 is released back into the environment. They breathe in oxygen and release carbon dioxide.

RESPIRATION

Opposites

PHOTOSYNTHESIS

Plants, algae, and some bacteria take in CO_2 from the environment and use it to make food. O_2 is released back into the environment.

BURNING FOSSIL FUELS AND TREES RELEASES CO_2 BACK INTO THE ENVIRONMENT

Gases containing carbon move between the ocean and atmosphere.

DECOMPOSITION

Fungi and some bacteria get energy by breaking down waste and remains of dead organisms into smaller molecules. CO_2 is released.

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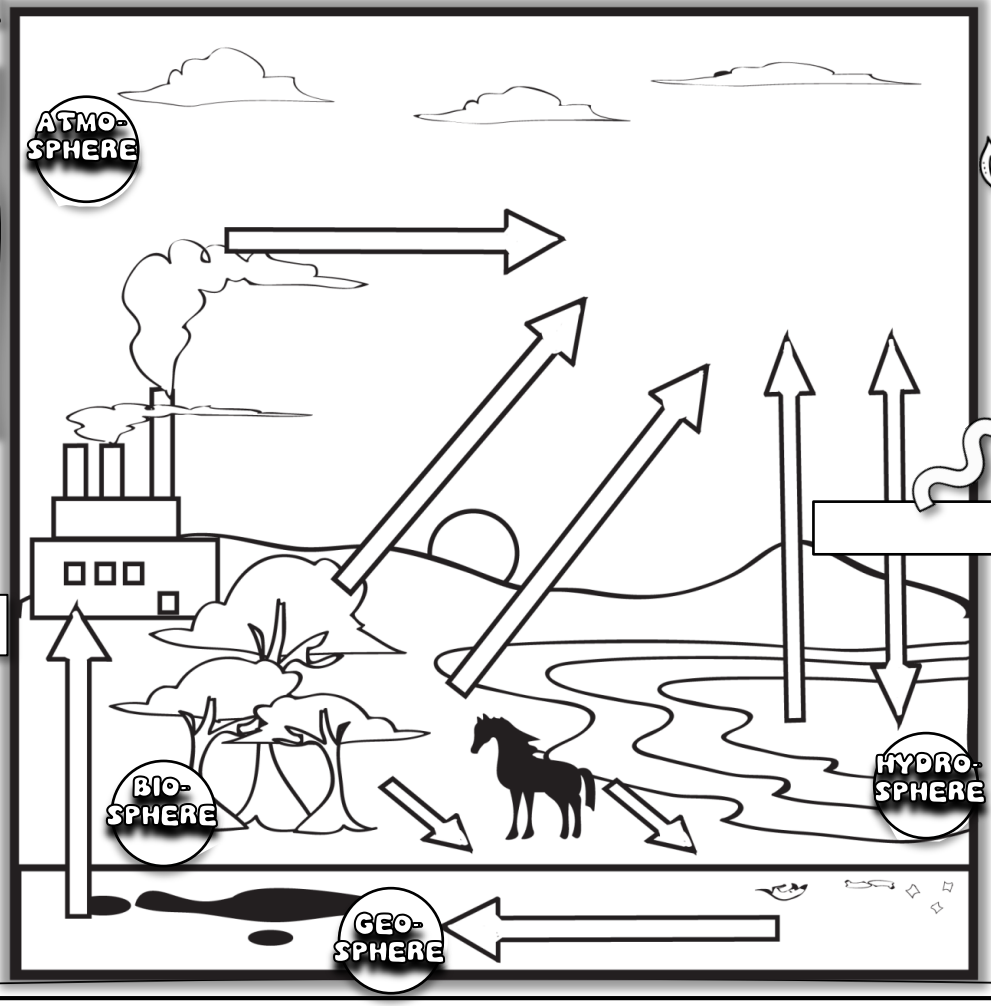

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CARBON DIOXIDE AND OXYGEN ARE CONTINUALLY _____ AND _____ BACK INTO THE _____

Carbon Dioxide = CO_2

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-cycle by which carbon is _____ among the spheres in the EARTH SYSTEM:

___sphere, _____sphere, _____sphere, & ___sphere

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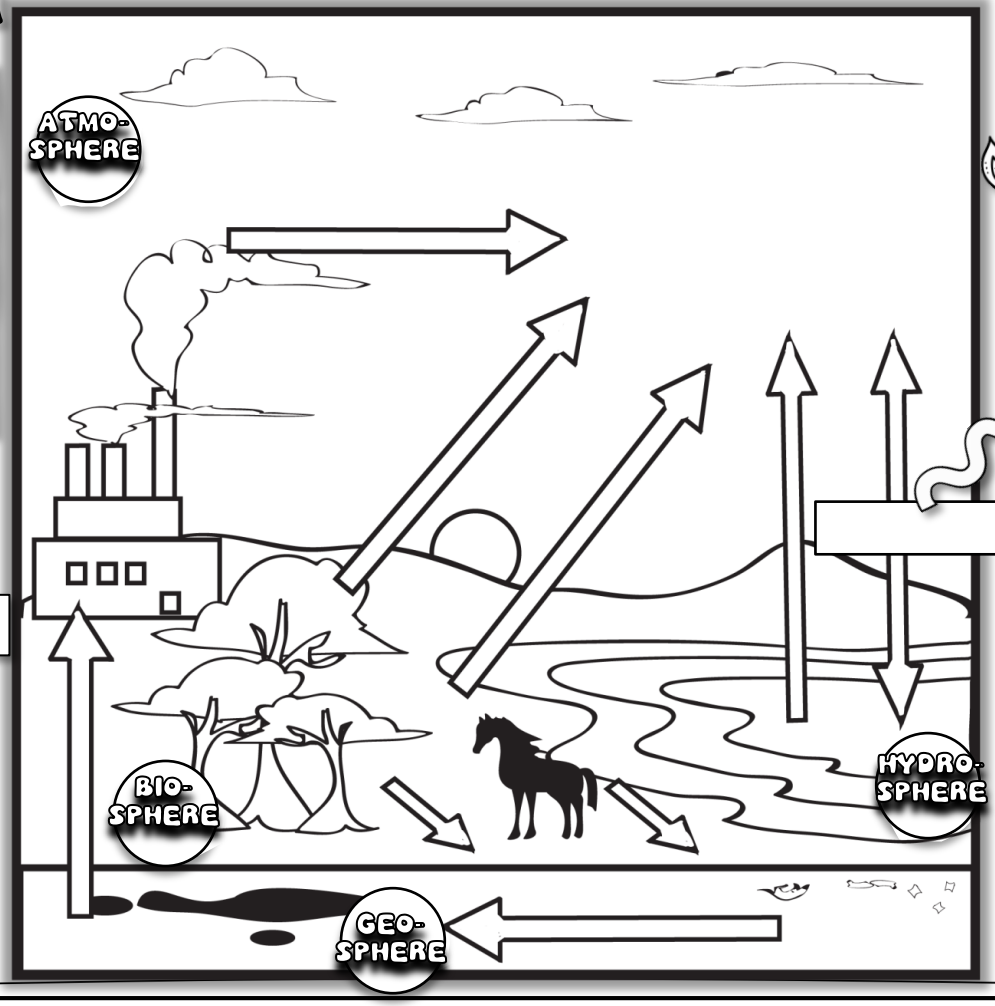

_____ FOSSIL FUELS AND TREES RELEASES _____ BACK INTO THE ENVIRONMENT

Most organisms get _____ by combining O_2 from _____ with _____. CO_2 is _____ back into the environment. They breathe in ___ and release _____.

RESPIRATION

_____

PHOTOSYNTHESIS

_____, algae, and some bacteria take in _____ from the environment and use it to _____ food. ____ is released back into the environment.

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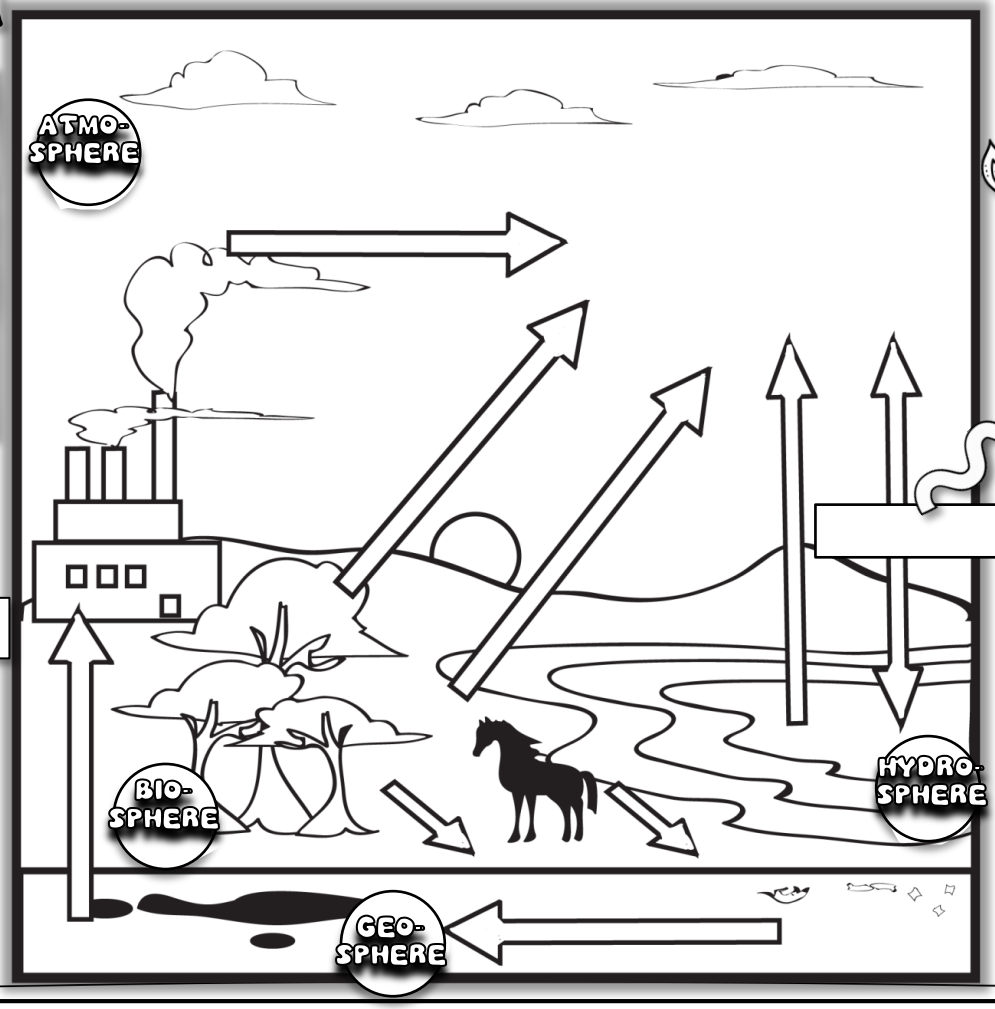

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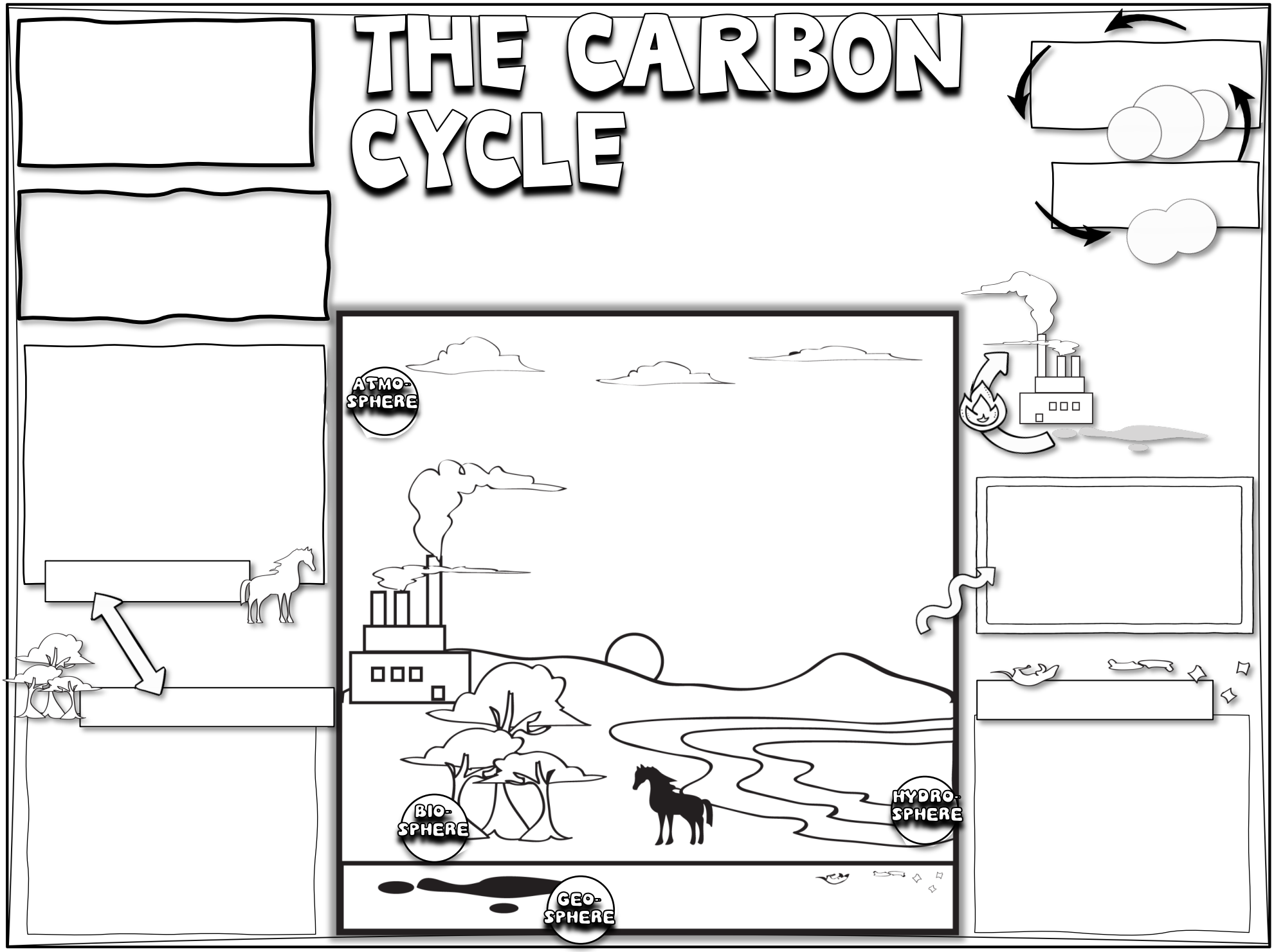
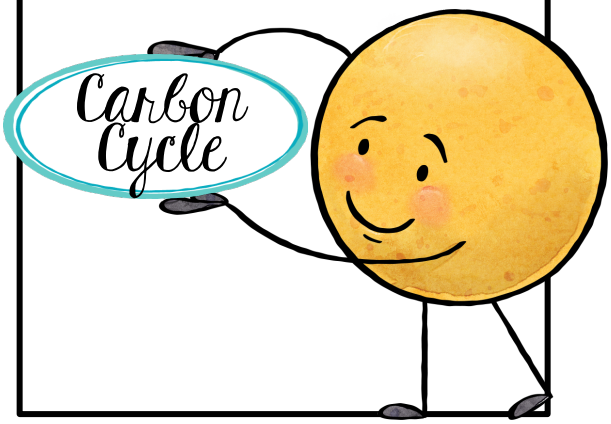
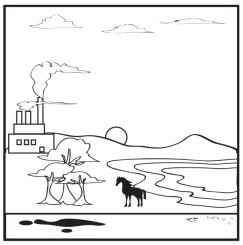


Understanding Checkpoint





Name _____

Date _____

Period _____

1. During respiration, _____ is consumed and _____ is released.
   a. oxygen, nitrogen
   b. oxygen, carbon dioxide
   c. carbon dioxide, oxygen
   d. nitrogen, carbon dioxide

2. The carbon that plants use comes from the
   a. air. b. soil.
   c. water. d. sun.

3. When people burn fossil fuels, carbon quickly enters the _____ as carbon dioxide.
   a. biosphere b. hydrosphere
   c. atmosphere d. geosphere

4. Which does not produce CO_2?
   a. Photosynthesis b. Decomposition
   c. Respiration d. Burning fossil fuels

5. Carbon dioxide is composed of
   a. 1 carbon and 2 oxygen atoms.
   b. 2 carbon and 1 oxygen atom.
   c. 2 carbon atoms.
   d. 3 carbon atoms.

6. Which organism releases carbon from waste and dead organisms back into the environment?
   a. fungi b. bacteria
   c. horses d. both a and b

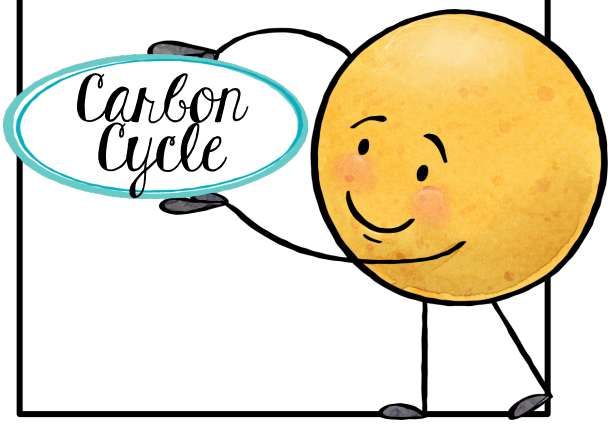
7. Where does the carbon cycle begin?
   a. Decomposition
   b. Respiration
   c. Photosynthesis
   d. Cycles do not have a beginning

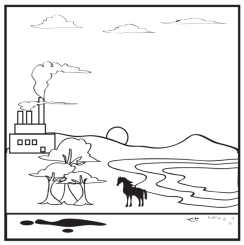
8. T or F: All the carbon that exists is continually recycled in the carbon cycle.

9. T or F: Almost all living things contain carbon.

10. T or F: Carbon dioxide can dissolve in water in diffusion.

Understanding Checkpoint ✓





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