



## Respiration - Teacher Demonstration

The carbon cycle is very important when we consider carbon dioxide and methane as the critical forcing factors producing the enhanced Greenhouse Effect. Carbon moves throughout our global systems.

The processes that cause the carbon to move through the atmosphere and hydrosphere are: **Respiration, Photosynthesis, Fermentation, Combustion, Solution and Lithification.**

### Respiration

Where does respiration occur? \_\_\_\_\_

Write the word equation describing respiration.

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**Teacher demonstration:** To demonstrate that carbon dioxide is a product of respiration.

#### Materials

- Healthy plant
- Small beaker of limewater  $\text{Ca}(\text{OH})_2$
- Bell jar or inverted large beaker sealed with plasticine to contain carbon dioxide.
- A cloth or cardboard box.



#### Method

1. Place the plant and limewater under the bell jar.
2. Cover with cloth or inverted cardboard box to exclude light
3. Leave for two days and observe changes in limewater

#### Observations

What did you observe?

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\_\_\_\_\_

#### Conclusion

What conclusion does this observation lead you to? \_\_\_\_\_

#### Discussion

Which substances were the reactants? \_\_\_\_\_

Which substances were the products? \_\_\_\_\_

Write the equation for this reaction

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How could this experiment be improved?

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