

Name \_\_\_\_\_

## Decomposition: Nature's Recycling Magic

### Short Answer Key

1. Detritivores and decomposers break down organic matter into smaller pieces, making it more accessible for further decomposition. They play a crucial role in breaking down dead organisms and organic materials.
2. Nutrients such as nitrogen and phosphorus are released into the soil during decomposition. These nutrients are important because they enrich the soil and promote plant growth.
3. Carbon from decomposed organic matter can become part of a carbon sink when it is incorporated into stable organic matter in the soil, which can remain there for a long time.
4. Decomposition helps balance the carbon cycle by releasing carbon dioxide into the atmosphere, which is absorbed by plants during photosynthesis, preventing an overabundance of atmospheric CO<sub>2</sub>.
5. Bacteria and fungi are essential for decomposition because they break down organic matter into simpler substances, recycle nutrients, and release carbon dioxide. Without them, organic matter would accumulate, and nutrients would become locked away, hindering plant growth.

