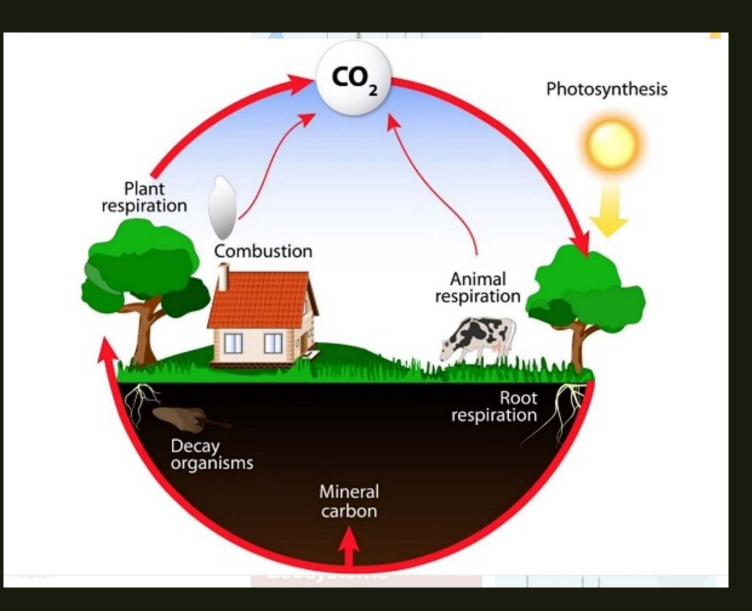
## WHAT CAUSES THINGS TO DECOMPOSE

By Stella, Jennifer, and Bridger

#### Learning objectives

Decomposition is ...

- The cycle of decomposition is ...
- Decomposition is important because ...



### Cycle of decomposition

The cycle of
decomposition starts
when a plant dies and
decomposers start to
break it down and
when it is being broken
down, it releases
carbon. The carbon
then goes to younger
more healthy plants to
keep it alive.

#### Decomposition

Decomposition is when organic material is broken down by decomposers and is the fuel to a new life.

#### Types of decomposition

- Anaerobic- anaerobic decomposition is when organic matter doesn't have access to air or oxygen during decomposition.
- Aerobic- aerobic decomposition is when organic decomposes with oxygen.



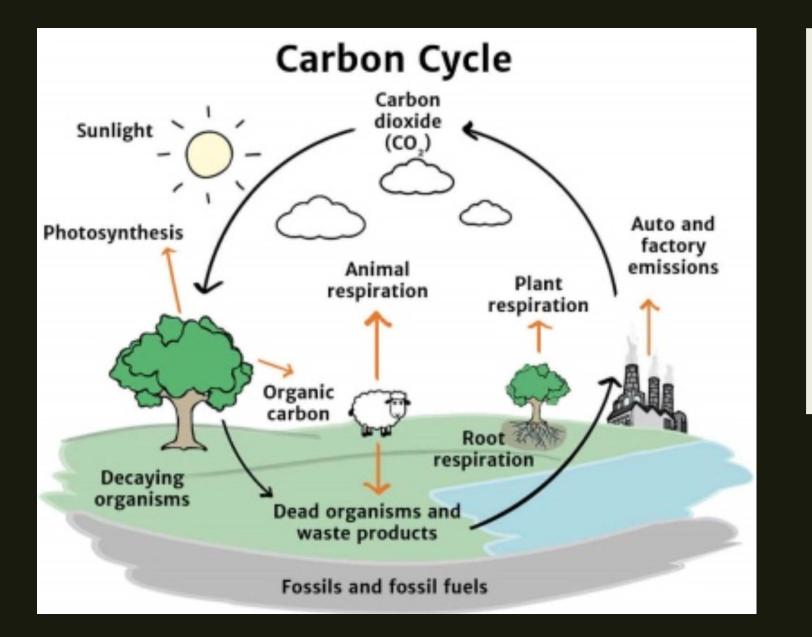


#### Chemical decomposers

- Chemical decomposers- chemical decomposers are organisms that are already in the organic matter that waits till the right condition to start breaking down.
- Examples: bacteria, Actinomycetes, Protozoa, and fungi.

#### Physical decomposers

- Physical decomposers- physical decomposers are larger organisms that break down the organic material for food. And leaves the rest there for the new life.
- Examples: mites, millipedes, centipedes, sow bugs, snails, slugs, spiders, springtails, beetles, ants, flies, nematodes, flatworms, rotifers, and most important, earthworms.



#### Carbon cycle

the series of processes by which carbon compounds are interconverted in the environment, involving the incorporation of carbon dioxide into living tissue by photosynthesis and its return to the atmosphere through respiration, the decay of dead organisms, and the burning of fossil fuels.

#### Requirements of decomposition

- Aeration/Oxygen
- Moisture
- Particle size
- Temperature

#### Why it's important

 Decomposition is important because without decomposition, life would not exist. Decomposition helps life stay healthy and grow so without it, we wouldn't have life.
 We would not exists because the carbon that is released from decomposing matter is critical to life without it there would be no where near enough carbon to sustain life.

## Where do we use decomposition everyday

We use decomposition everyday. We use decomposition in farming, gardening, flower boxes, and other ways.

#### Factors that affect decomposition

- Global warming is one of biggest, but other minor ones are climate, soil type, and substrate quality.
- global warming speeds up the rate of decomposition so it adds more carbon to the atmosphere.

# How is decomposition different from rotting ?

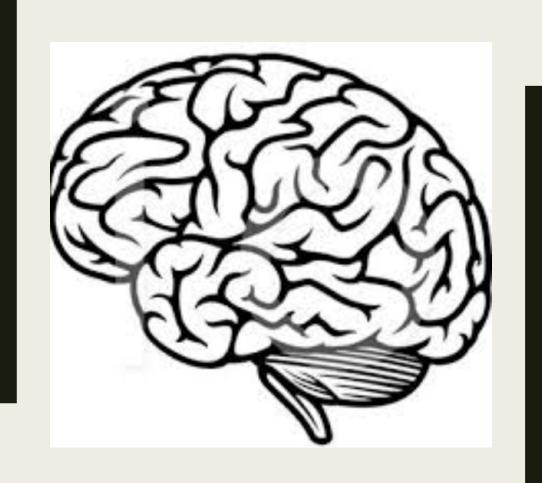
Decomposition and rotting are different. Decomposition is when organic matter breaks down. Rotting is when the organic matter doesn't break down and it molds.



### ROTTING OF A PINEAPPLE



#### ROTTING OF A WATERMELON



## BRAIN POP ACTIVITY

#### Vocabulary

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- Aerobic-aerobic decomposition is when organic decomposes with oxygen.
- Physical decomposers- physical decomposers are larger organisms that break down the organic material for food. And leaves the rest there for the new life.
- Chemical decomposers- chemical decomposers are organisms that are already in the organic matter that waits till the right condition to start breaking down.
- Cycle of decomposition- The cycle of decomposition starts when a plant dies and decomposers start to break it down and when it is being broken down, it releases carbon. The carbon then goes to younger more healthy plants to keep it alive.
- Carbon cycle- the series of processes by which carbon compounds are interconverted in the environment, involving the incorporation of carbon dioxide into living tissue by photosynthesis and its return to the atmosphere through respiration, the decay of dead organisms, and the burning of fossil fuels.

#### Sources

- https://www.sciencenewsforstudents.org/article/recycling-dead
- <u>http://techalive.mtu.edu/meec/module10/Decomposition.htm</u>
- <u>http://www.countrysideinfo.co.uk/decompos.htm</u>
- <u>https://aggie-horticulture.tamu.edu/earthkind/landscape/dont-bag-it/chapter-1-the-decomposition-process/</u>
- <u>https://thekidshouldseethis.com/post/dead-stuff-the-secret-ingredient-in-our-food-chain</u>