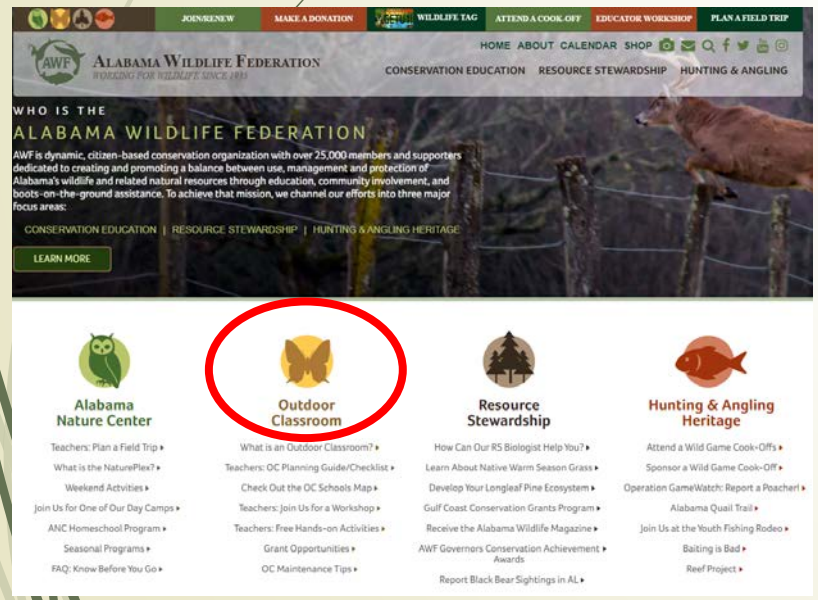
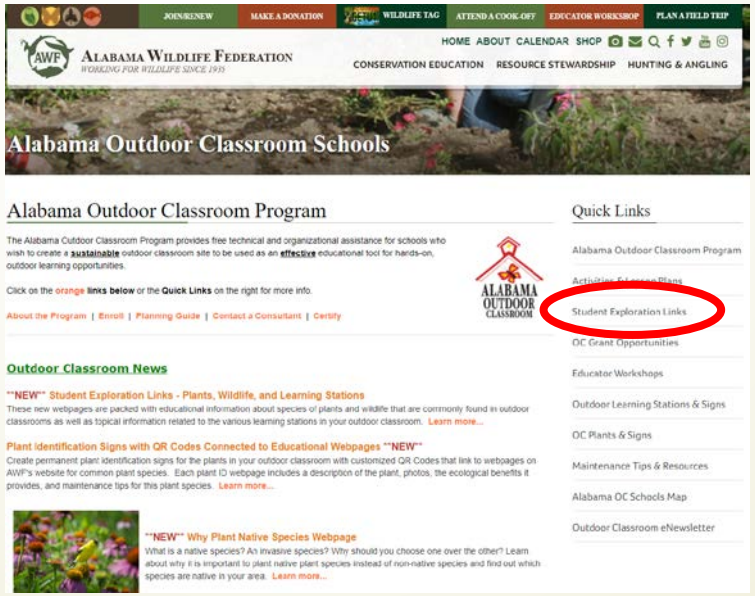
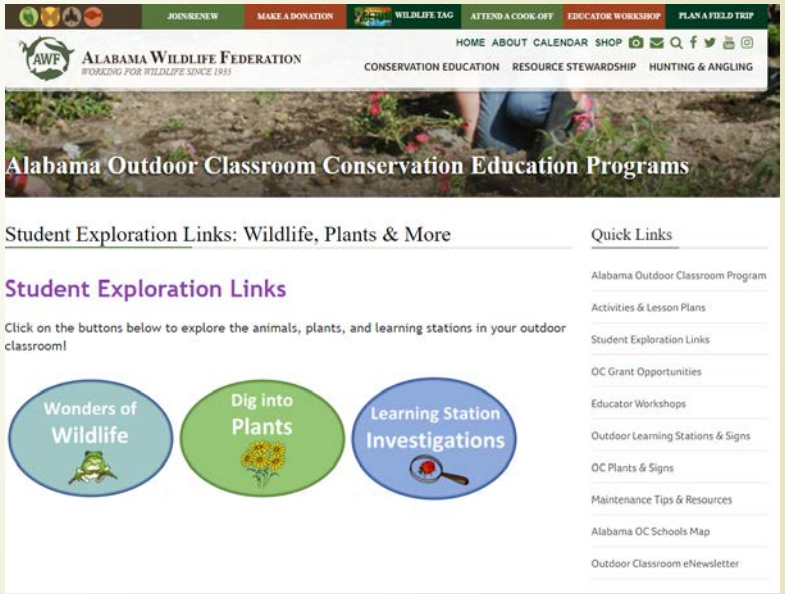
Decomposition

Check out our website!

- **All of the information in this presentation can be found online on our website at:**
  - **https://www.alabamawildlife.org/**

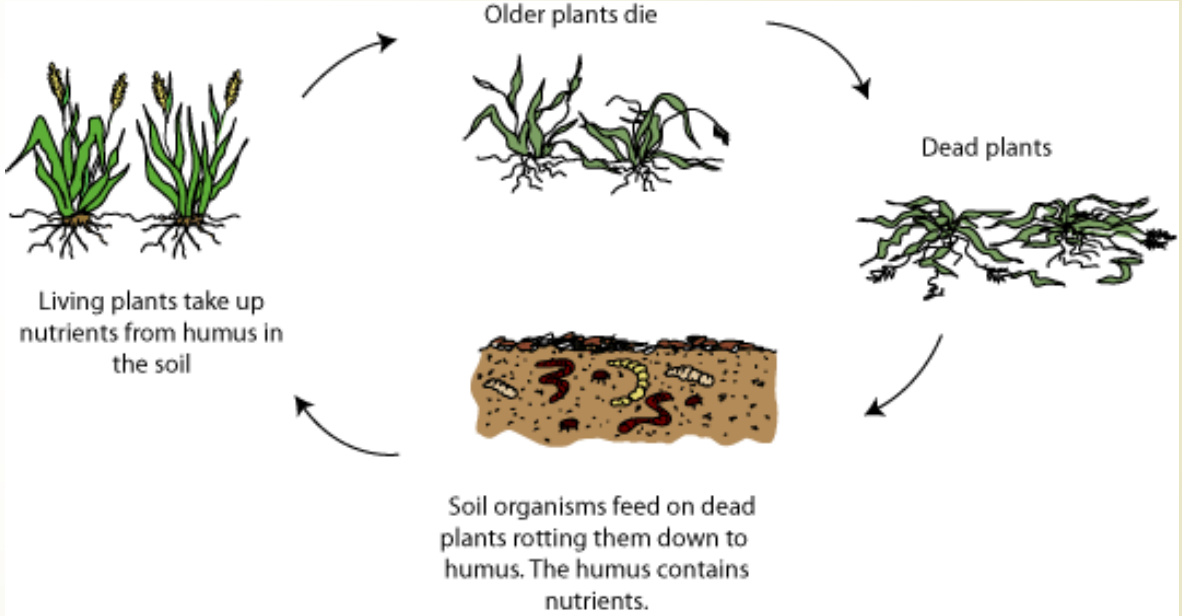






What is decomposition?

- The breaking down of organic material over time
  - Complex molecules in organic materials are broken down
- Nature's way of recycling
  - Plants are able to use the simpler forms of the molecules



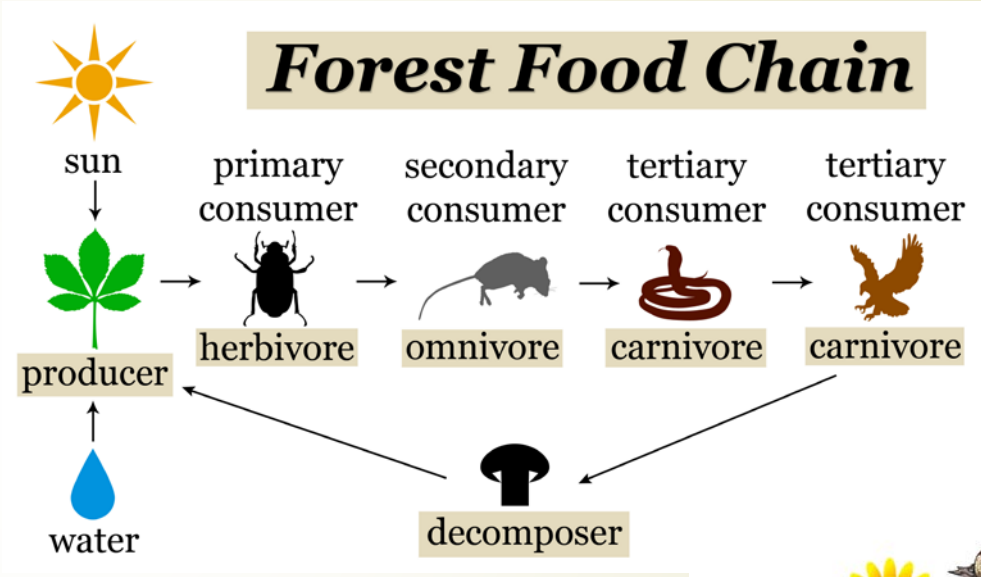
Photograph Source: Socratic Q&A

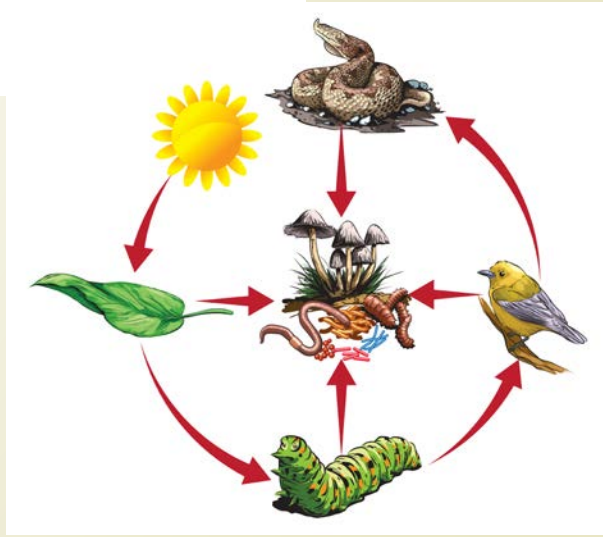
Why is decomposition important?

- Can you imagine what the world would look and smell like without decomposers?
- **Decomposers** help keep the environment clean
  - Reduce disease transmission
  - Keeps soil well nourished
  - Reduces bad smells

Decomposition and the Food Chain

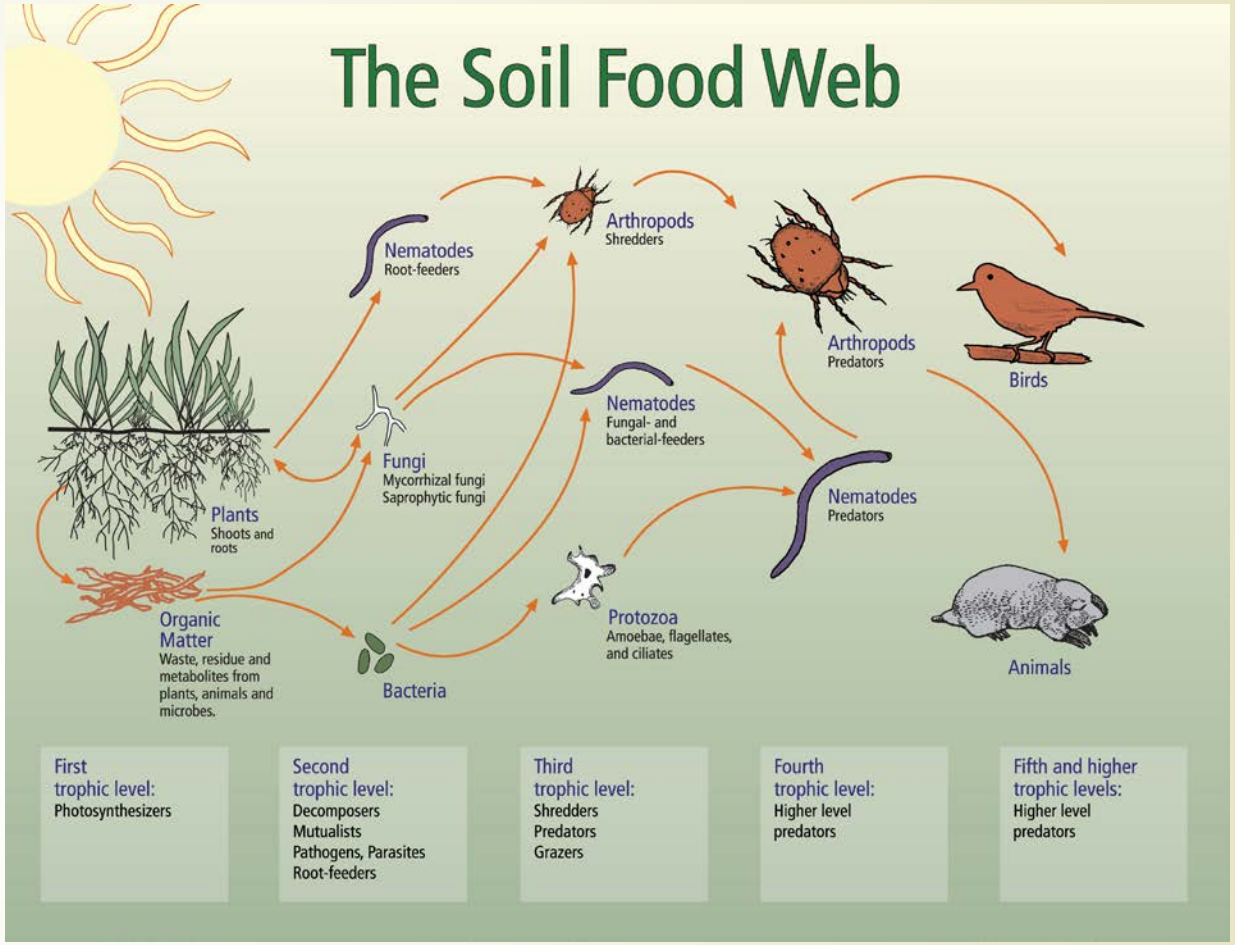
- Link between beginning and end of the food chain/web
  - The process of decomposition provides nutrients that plants (producers) can use during photosynthesis
- Any organism in a food chain or food web that does not survive is recycled through decomposition

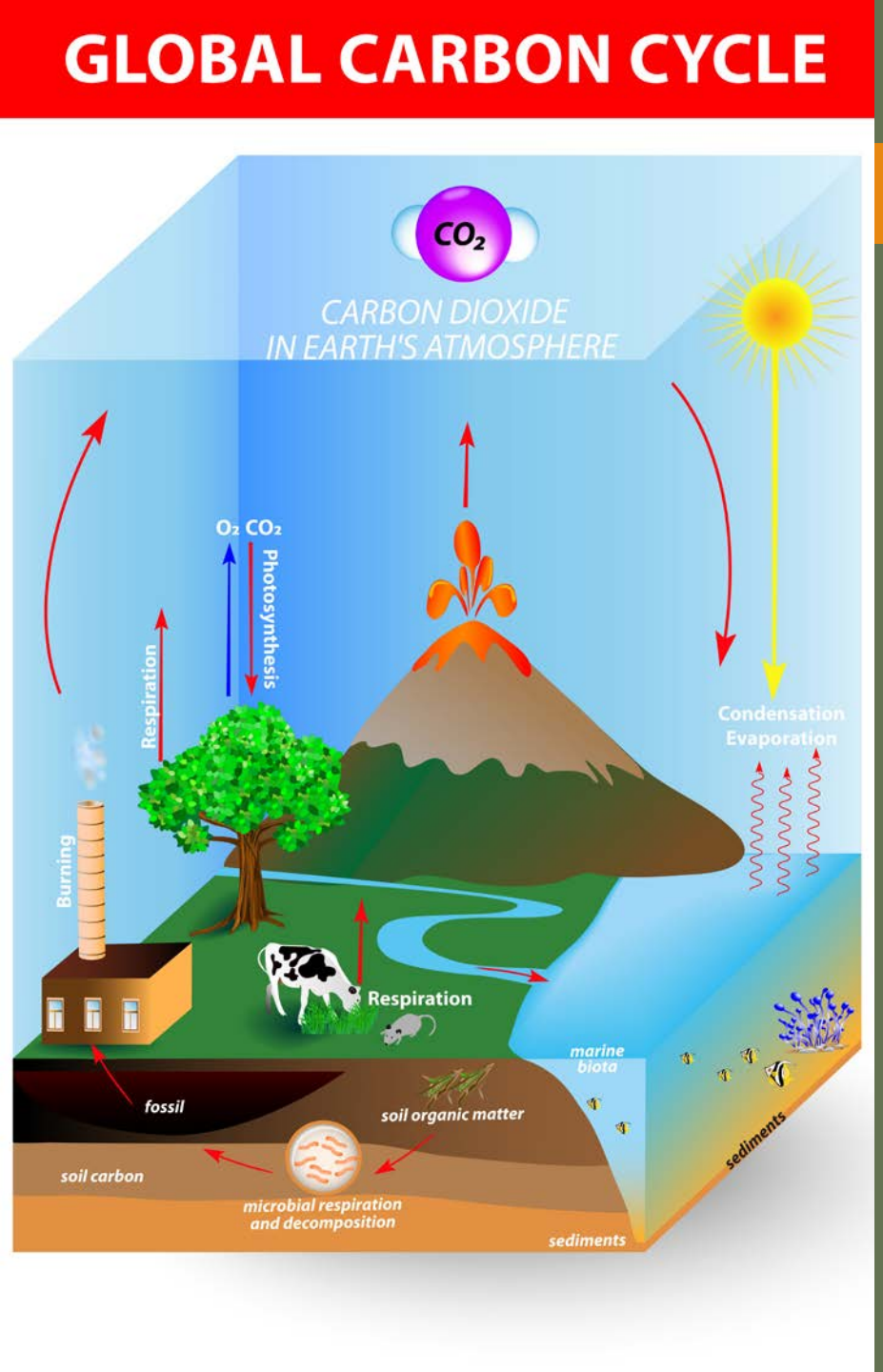




Soil Food Web

- Organisms within the soil interact with each other and are part of a food web
- Decomposers obtain nutrients from decaying material
- Organisms such as centipedes and spiders will feed on decomposers



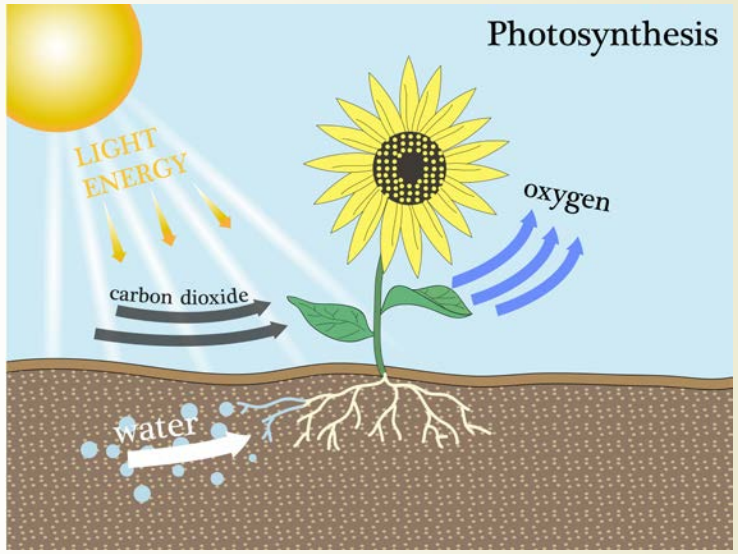


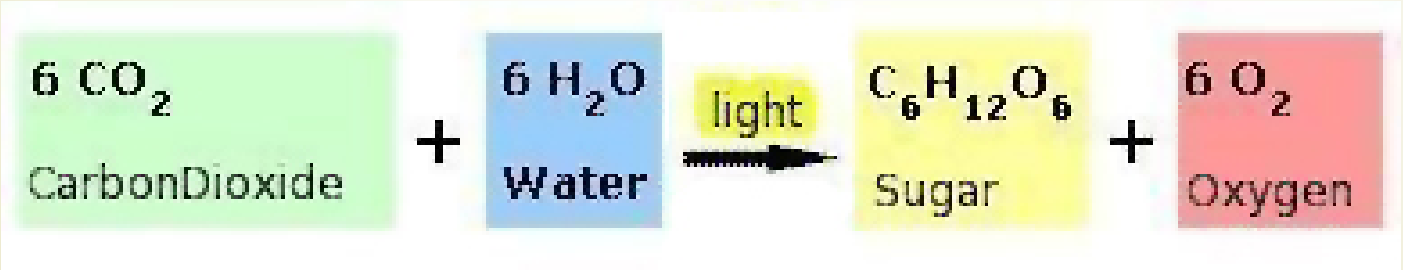
Decomposition and the Carbon and Nitrogen Cycles

- The food chain is a component of a cycle
- Elements like carbon and nitrogen move through living and nonliving components of the ecosystem

Decomposition and the Carbon Cycle

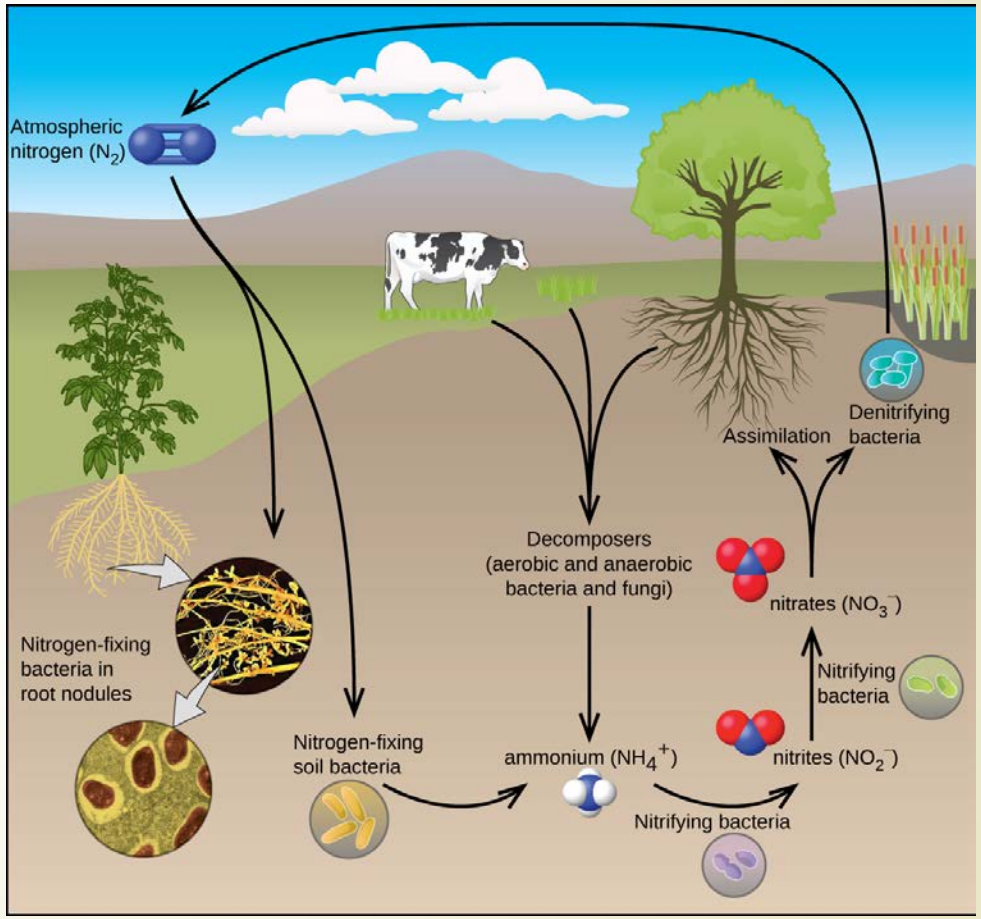
- These elements are transferred through the food chain from one trophic (feeding) level to the next
- As these elements move through the food chain, they become more complex
  - Example: **photosynthesis**





Decomposition and the Nitrogen Cycle

- Within the Nitrogen cycle, Nitrogen from atmosphere (simple form) is converted into more complex molecules that plants can use
- As animals feed on plants, these molecules are passed along the food chain
- When plants and animals die, these molecules are broken down and released into the soil



Where can you see decomposition in action?

Where might you see decomposition in action?

- Fallen log/ stump

Where might you see decomposition in action?

- Fallen log/ stump
- Leaf litter

Where might you see decomposition in action?

- Fallen log/ stump
- Leaf litter
- Soil

Where might you see decomposition in action?

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- Compost

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Fallen Log: A (Micro) Habitat for Many

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Fallen Log: A (Micro) Habitat for Many

- Insects live in bark
- Birds eat bugs
- Small mammals use runway
- Reptiles bask and hunt
- Salamanders hide underneath
- Decomposers

Who does the dirty work?

Common Decomposers (& Scavengers)

Ants

Common Decomposers (& Scavengers)

Ants

Beetles

Common Decomposers (& Scavengers)

Ants

Beetles

Crows

Common Decomposers (& Scavengers)

Ants

Beetles

Crows

Flies

Common Decomposers (& Scavengers)

Ants

Beetles

Crows

Flies

Maggots

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Pill bugs

Slugs

Snails

Termites

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Termites

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Pill bugs

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Termites

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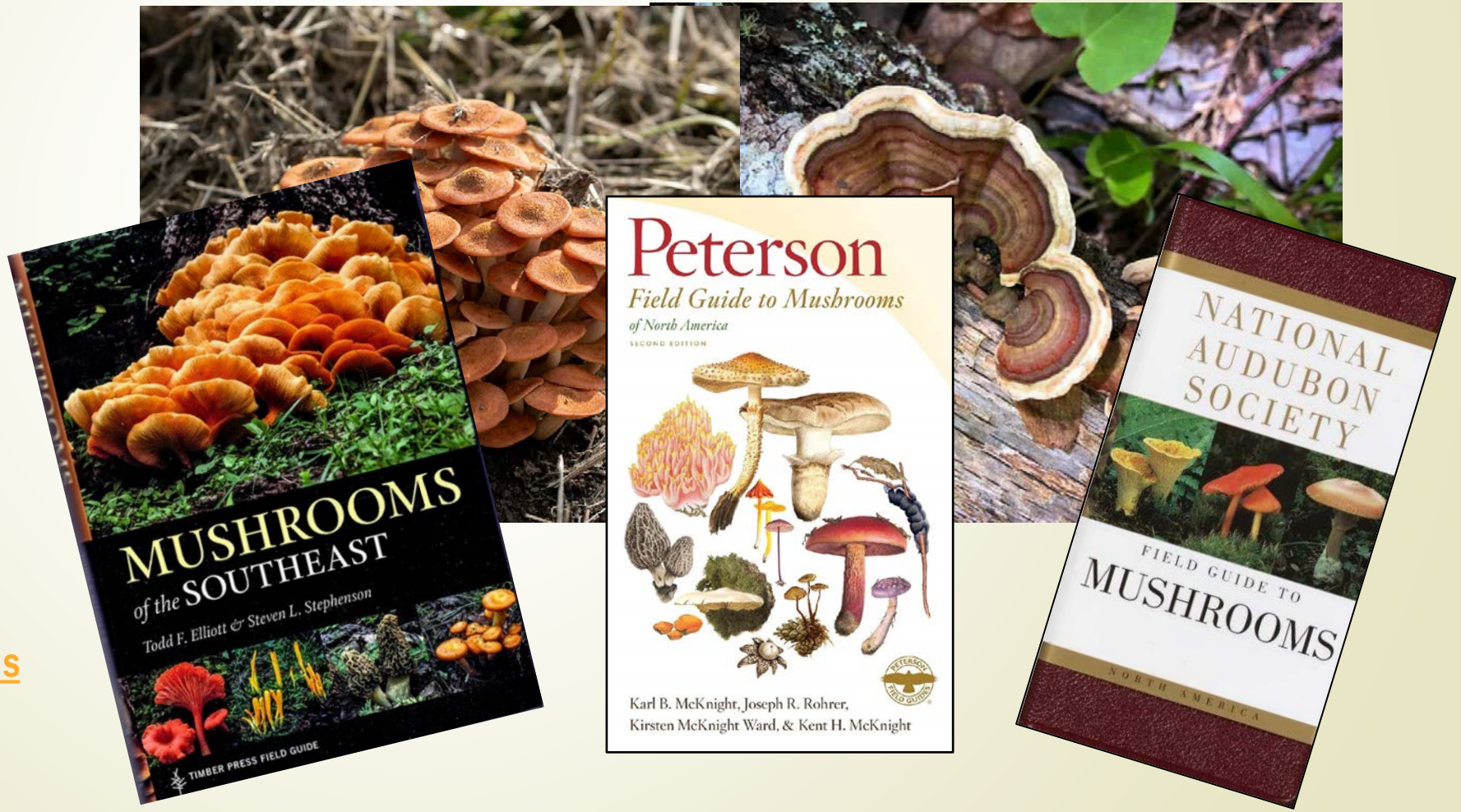

Common Decomposers (& Scavengers)

Ants

Beetles

Crows

Flies

Maggots

Millipedes

Roaches

Pill bugs

Slugs

Snails

Termites

Vultures

Worms

Mushrooms

Lichens

Foliose

Fruticose

Crustose


WHAT DO THEY SAY ABOUT A MUSHROOM THAT TELLS JOKES?
HE'S A FUNGI.