

### A Forest Ecosystem Education Guide

Activities and Lesson Plans for Teachers and Resource Educators





www.focusonforests.on.ca

## Nature's Throwaways

#### **Lesson Summary**

The natural cycle of decay in the forest will be explored.

PRIMARY FOF3





# **Objectives**

- To discuss the natural litter found on the forest floor
- To develop an understanding of the importance and role of this litter
- To analyze different components of litter



# **Throwaway**

What happens to things after you throw them away?



- Recycled
- Landfill
- Organic waste



## **Throwaway**

 What types of things does nature "throwaway"?



What happens to nature's garbage?

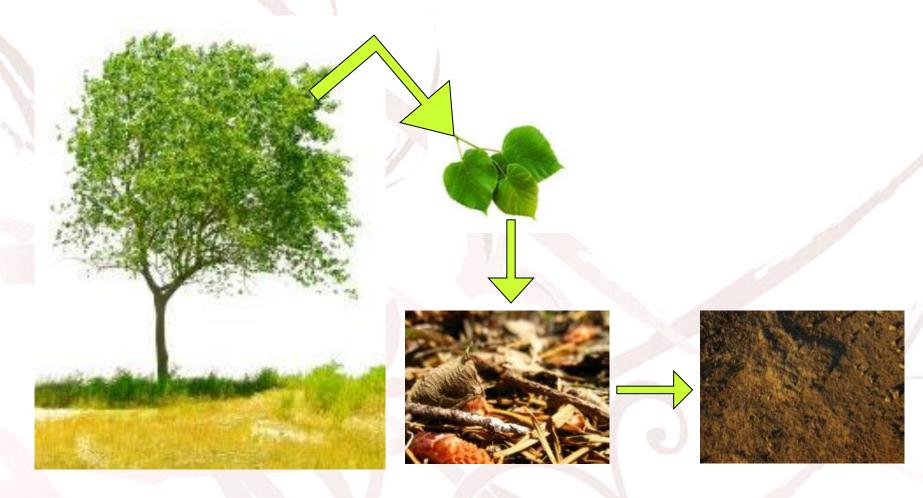


### Decomposition

- What is decomposition?
  - Process in which organic material is reduced
  - i.e. decomposition of leaves to small pieces that eventually gets turned into soil
- Constant cycle of life and death

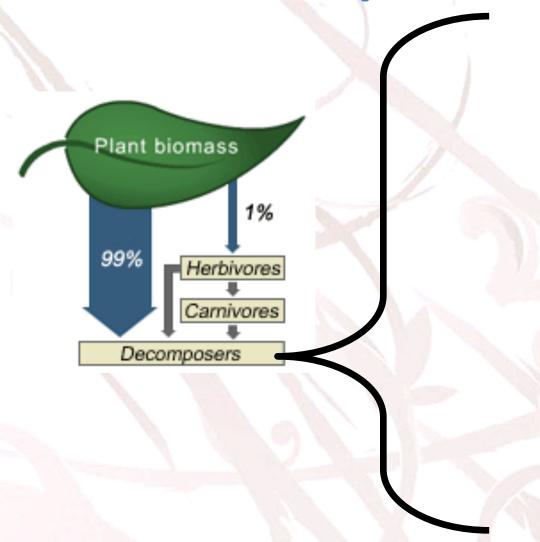


# **Forest Cycle**

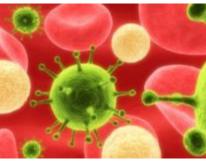




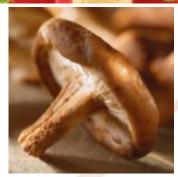
### **Decomposers**



**Bacteria** 



Fungi



Insects



**Earthworms** 



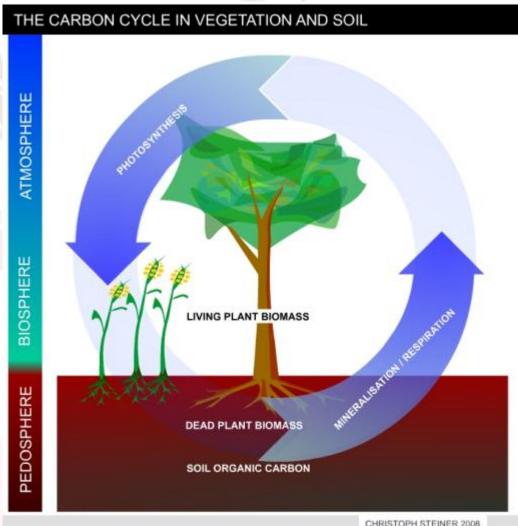


### Decomposition

- The rate of decomposition depends on the local climatic conditions
  - Warmer areas- litter decomposes more quickly
  - Colder areas- slow decomposition
- The rate of decomposition determines the depth of the litter
  - Eventually everything is decomposed



### Carbon



- When organic matter decomposes, carbon is released into the atmosphere
- Carbon can also be stored in dead plant matter as peat or coal



### **Activity**

- In the forest
  - Observe the things lying on the ground
  - Work your way down through the forest litter until soil is reached
  - What changes take place in the litter as you go deeper?
  - Take a sample of the litter
    - What is found in the sample?



### Litter



Bark Twigs

Leaves

**Roots** 

**Flowers** 

**Branches** 

**Needles** 

Cones

Seeds

**Decomposers** 



### Review

- The forest floor is made up of different parts of plants
- Litter is broken down by decomposers, making nutrients available to plants
- Litter is important for moisture retention, nutrient sources and habitat

