

Matter in Ecosystems

An ecosystem needs more than energy to function. It also needs matter. Matter is used by organisms in ecosystems for life processes. Most ecosystems need over 20 elements. Just the plants in most ecosystems need 16 elements. These essential elements are called **nutrients**.

NOTES - Nutrients and Cycles.pdf

Re-order the descriptions on the right to line up with the terms on the left.

non-mineral nutrients

magnesium - one of the atoms
in a chlorophyll molecule

mineral nutrients

needed in relatively large amounts for
plant growth (found in commercial fertilizers)
-nitrogen, phosphorus and potassium

macronutrients

iron - needed to make hemoglobin
molecules in red-blooded animals

primary macronutrients

nutrients which enter an
ecosystem from bedrock

secondary macronutrients

nutrients which enter an ecosystem
in the form of water and carbon dioxide
- oxygen, carbon, hydrogen
(building blocks of life)

micronutrient

required in greater amounts than micronutrients

Correct Matches

non-mineral nutrients → nutrients which enter an ecosystem in the form of water and carbon dioxide
- oxygen, carbon, hydrogen
(building blocks of life)

mineral nutrients → nutrients which enter an ecosystem from bedrock

macronutrients → required in greater amounts than micronutrients

primary macronutrients → needed in relatively large amounts for plant growth (found in commercial fertilizers)
-nitrogen, phosphorus and potassium

secondary macronutrients → magnesium - one of the atoms in a chlorophyll molecule

micronutrient → iron - needed to make hemoglobin molecules in red-blooded animals

Remember: Energy flows through an ecosystem in one direction.

Nutrient Cycles

Nutrients are recycled through ecosystems...

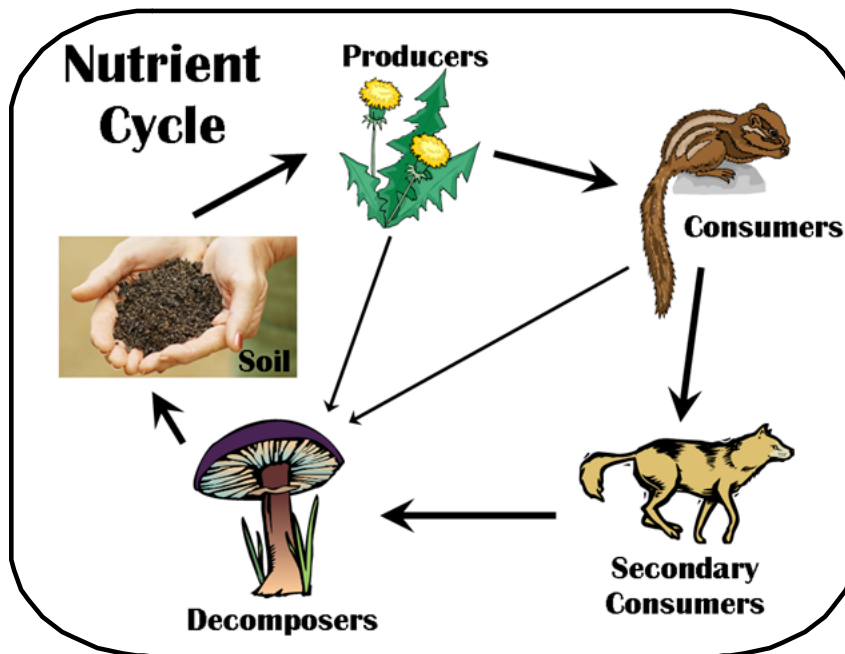
Producers get their nutrients from the soil, water and air.

Herbivores get nutrients when they eat producers.

Carnivores get nutrients when they eat herbivores.

Decomposers break down animal wastes and dead organisms.

The actions of decomposers release nutrients back into the soil, water and air so producers can use them again.



(Water and air not shown in this diagram.)

Attachments

NOTES - Nutrients and Cycles.pdf