

interconnections between organisms that occurs in a natural ecosystem. For this reason, interrelationships within an ecosystem are sometimes referred to as *the web of life*. Ask students if this web is more complex or more simple than the web of life which exists in a nearby natural area or park (your classroom web is *much* more simple).

5. Tell students that something has just happened to change this ecosystem: a new community is being built nearby, and an area of the forest will need to be logged to provide the space. Keeping the string taut, ask the "tree" student(s) to suddenly release the string when you count to three. After the string is released, immediately ask if anyone felt the tension in the string change when the tree dropped out (several, including the squirrel, should say yes). Ask those affected by the loss of the tree to say how they are affected.
6. Count to three again, and ask these "affected" students to in turn drop the string. Keep going until everyone has dropped the string. Have students drop the string in front of them so they can pick it up again for the next round. Students should realize that any change to an ecosystem - whether slight or profound - is felt throughout the system. Tell students the golden rule of ecology: ***In an ecosystem, you can never just do one thing.***

Easy Option: Rather than have students drop their strings, ask them to gently tug on the string. Those feeling the tug can tug in turn, and so on. This eliminates the need to pick up the dropped string.

7. Ask students to repeat this activity using the following changes to the ecosystem:
 - A developer drains a wetland to build a new community
 - The municipality sprays to remove pesky mosquitoes from the area
 - Decreasing ozone levels allows more ultraviolet radiation, which kills cells and slows the growth of the trees
 - A species of worm goes extinct. This worm specialized in breaking down deer and elk poop and releasing the nutrients back into the soil
 - The forest is in a park - but the park is too small to preserve large carnivores, causing them to be extirpated from the area

Emphasize two points to students:

- a) Recent studies are showing that carnivores are far more important than previously thought. Their presence or absence may actually dictate how healthy the entire ecosystem is. This is known as the 'top down' or regulatory effect.
- b) Humans usually understand only a small amount of what actually goes on in an ecosystem: the relationships and interdependencies are normally too complex. This often makes our attempts to 'manage ecosystems' almost comical! The following true story of 'Cats in Parachutes' by Bart Robinson elaborates on this.