Diagramming an Ecosystem

Summary

Students will create illustrations of an ecosystem using the computer program Inspiration or using paper and colored pencils.

Time Frame

1 class periods of 90 minutes each

Group Size

Individual

Materials

Resources for investigating ecosystems (books, magazines, internet) computers with the program Inspiration OR paper and colored pencils

Student Prior Knowledge

Students need to be familiar with food chains, food webs, symbiotic relationships and matter cycles. Students need to be familiar with various ecosystems (eg.desert, forest, pond, ocean, etc.).

Instructional Procedures

Discuss the definition of an ecosystem, including biotic factors, abiotic factors and interactions. Brainstorm a list of ecosystems and write the list on the board. Divide the students into groups. Each group chooses an ecosystem to research and illustrate. This can also be done individually. Students research a particular ecosystem discovering abiotic and biotic factors. Included should be several organisms that interact through symbiosis or through the food chain. Included also should be matter cycles such as oxygen, carbon dioxide, nitrogen, water and phosphorus. Using Inspiration software or paper and colored pencils, students create an illustration resembling a concept map of their ecosystem. Colored arrows connect biotic factors with each other and with abiotic factors illustrated to show relationships. Arrows are then labeled to define the interaction. Example: Cow manure pile soil is labeled NITROGEN. Bacteria release Nitrogen into the air which would be illustrated as Bacteria Air, also labeled as NITROGEN.

Bibliography

Lesson Design by Jordan School District Teachers and Staff.

Authors

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