

Catch as Catch Can

Skills: Math, Language Arts, Science, Visual Arts

Objective: The student will construct an insect catch net and capture insects for observation.

Background

There are more kinds of insects than all kinds of animals and plants combined. Approximately 3/4 million different species of insects are known. Insects have been the origin of legends and superstitions down through the ages. Idols were built in the likeness of the scarab beetle worshiped by the ancient Egyptians. In Biblical times crop destruction by hordes of grasshoppers resulted in famine.

Insects are our greatest competitor for food. All crops and livestock and the products derived from them may be damaged by insects. The annual loss from insects amounts to several billion dollars in the U.S. Insects kill animals, destroy crops and stored products, crumble buildings and transmit disease.

But insects do many good things for us, too. Lady beetles, ground beetles, wasps and certain flies destroy harmful insects. Honeybees provide us with honey and beeswax. They and other insects are important natural agents of cross-pollination of many kinds of food plants. Some insects are valuable soil builders because they hasten decay of woody plants, improve soil aeration and improve tilth. Secretions of several species of insects are used in manufacturing drugs, dyes and paints. Insects provide food for birds, fish and other forms of animal life, including humans, in some cases.

Insects have inspired designers of airplanes, locomotives, automobiles, children's toys, costume jewelry, wallpaper, draperies, lamp shades and many other items.

Insects live all over the world. As new species are discovered, they are identified by insect taxonomists and given scientific names. Most of us know them by common names, like "housefly" or "grasshopper." However, people in other parts of the world may not have the same names for the insects with which we are familiar. Scientists all over the world agree on the scientific names.

Visual Arts

1. Students will make butterfly nets as follows:
 - Fold the netting in half.
 - Sew a seam up the length of the netting, leaving casing free.

P.A.S.S.

GRADE 2

Reading—3.1; 6.2b
Science Process—2.1; 4.3
Math Process—2.1; 5.1
Math Content—5.1
Visual Arts—3.2

GRADE 3

Reading—2.1
Writing—2.1
Science Process—2.1; 4.3
Math Process—2.1; 5.1
Math Content—5.1c
Visual Arts—3.2

GRADE 4

Reading—1.1; 5.1a
Writing—2.2
Science Process—4.4
Math Process—2.1; 5.1
Math Content—5.1b
Visual Arts—3.1

GRADE 5

Reading—1.1a; 5.1a
Writing—2.1
Science Process—4.4
Math Process—2.1; 5.1
Visual Arts—3.1

Materials

(for each student)

1 piece of nylon netting or tulle, 2 ft by 3 ft

1 coat hanger

1 PVC pipe, 3 or 4 feet long

needle and thread

1 rubber band

Vocabulary

cross-pollinate—Transfer pollen between two separate plants.

organism—A living individual, plant or animal.

species—A class of individuals or objects grouped by virtue of their common attributes and assigned a common name.

tilth—Cultivation of land; tillage.

- Bend hangers so they form a circle. Leave the hooks as they are.
- Fold the netting over the tops of the hangers.
- Stitch the netting in place, leaving the hooked end of the hanger free.
- Fasten the end of the net with a rubber band.
- Bend the hook of the hanger so it will fit inside the PVC pipe.

2. Students will create drawings or models of “new” insects.

Science

1. Read and discuss background.
2. Students will use their nets to catch flying insects.
 - Provide field identification guides from the library.
 - Students will use the field guides to identify insects they catch.

Math

1. Students will complete a chart or graph showing the number and kind of insects they catch.

Language Arts

1. Students will write stories about the insects they have captured.

Extra Reading

Anderson, Margaret J., and Marie Leglatin Keis, *Children of Summer: Henri Fabre's Insects*, Farrar Straus & Giroux, 1997.

Blum, Mark, *Bugs in 3-D*, Chronicle, 1998.

Kneidel, Sally Stenhouse, and Mauro Magellan, *Pet Bugs: A Kid's Guide to Catching and Keeping Touchable Insects*, John Wiley & Sons, 1994.

Mound, Laurence, *Eyewitness: Insect*, Dorling Kindersley, 2000.

Christina, Tison, Annette, and Talus Taylor, *Insects* (National Audubon Society First Field Guides), Scholastic, 1998.

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