



Insects

Class Outline

Brief Synopsis: Insects are the most successful creatures in the entire animal kingdom. They are highly adaptable and able to live almost everywhere. Although often seen as pests, insects play a crucial role in their respective habitats. Participants will have the opportunity to explore Eagle Bluff in search of some of the over one million species of insects, to be observed and classified.

Outcomes:

1. Students will name the four main roles insects play in any given habitat.
2. Students will capture local insects utilizing appropriate tools and techniques for each habitat.
3. Students will identify local insects to their Order.
4. Students will list several mechanisms that drive insect success and increase insect diversity.

Outline:

I. Ecosystem Jobs (20 minutes)

All over the world, humans have many different jobs to do to help keep our cultures and societies running. These same roles can be seen in natural communities or habitats, with insects playing all of the important roles. Through a game show-style activity, students will group together and name the four major roles of insects in all ecosystems.

II. Classifications (15 minutes)

Insects, being as small and diverse as they are, can be difficult to name and understand. Most scientists rely on a system of classification to group related plants or animals together. Students will get a brief introduction to scientific classification and will look at the features and adaptations that will help them classify the insects they capture to Order.

III. Insect Collecting (1 hour 40 minutes)

Students will visit several different habitats around Eagle Bluff, which may include a pond, field, young forest and mature forest. They will use habitat-appropriate tools to collect insects and then classify them to their Order using a dichotomous key.

IV. Mechanisms of Diversity (30 minutes)

To discover why insects are the most numerous and diverse organisms living on the planet, students will re-enact the incredible ability of insects to adapt and disperse through changes in their habitats. These are also the reasons why insects are such fascinating and necessary creatures.

Quick Facts

Class Length: 3 hours

Ages: Designed for 5th–8th grade

Season offered:
April through October

Time outside: 2 hours

Hike length/physical activity:
3/4 mile, low physical level

Pre-requisite/prior knowledge:
No prior knowledge necessary

Minnesota Academic Standards:
Science: 4.IV.B.1, 7.IV.B.2, 4&5, 7.IV.C.4,
7.IV.E.3-5
Math: 4.V.B.1
Language Arts: 4.I.A.1, 4.I.B.1&2, 4.III.A.1&2,
5.I.A.1, 5.I.B.1, 5.III.A.1&2, 6.I.B.4,
6.III.A.1&3, 7.I.A.1, 7.I.B.1&5, 7.III.A.1,
8.I.B.1, 5&8, 8.III.1, 2&7, 9-12.I.B.4

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