



Characteristics of Insects

National Standard > Science > Science as Inquiry & Life Science

Scientific Inquiry

- Develop abilities to do scientific inquiry
- Develop understandings about scientific inquiry

Life Science

- Develop understanding of characteristics of organisms
- Develop understanding of organisms and environments
- Develop understanding of populations and ecosystems
- Develop understanding of diversity and adaptations of organisms

Kentucky > Science Standards

SC-E-3.1.1

- Things in the environment are classified as living, nonliving, and once living. Living things differ from nonliving things. Organisms are classified into groups by using various characteristics (e.g., body coverings, body structures).

SC-E3.1.3

- Organisms have basic needs. For example, animals need air, water, and food; plants need air, water, nutrients, and light. Organisms can survive only in environments in which their needs can be met.

SC-M-3.1.1

- Living systems at all levels of organization demonstrate the complementary nature of structure and function. Important levels of organization for structure and function include cells, tissues, organs, organ systems, organisms (e.g., bacteria, protists, fungi, plants, animals), and ecosystems.

Ohio Standards: Science

Life Science

Benchmarks

Grades K-2

B. Discover there are living things, nonliving things and pretend things, and describe the basic needs of living things (organisms).

Grades K-2

C. Explain how organisms function and interact with their physical environment.

Characteristics of Insects

The colorful characters, insects, in James and the Giant Peach, a play use many of their "special" talents to help the travelers survive the journey. These characteristics set each of them apart from other organisms.

Objective

The students will compare characters from James and the Giant Peach, a Play to real insects, identifying body parts of insects, discussing functions of insect body parts, making observations supported with evidence and comparing story characters to real life insects.

Vocabulary

- Characteristics
- Insect
- Survive
- Functions
- Observation
- Evidence
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Task 1

Materials

- Pictures of insect characters from James and the Giant Peach (at least 8 ½ by 11 inches to post in classroom)
- Pictures of real insects with lines and arrows pointing to observable characteristics (legs, mouth, eyes, etc – at least 8 ½ by 11 inches to post in classroom)
- Student copy of insect diagrams(select details to include that appropriate for grade level and/or student needs)

Activity

Teacher will:

- Have students illustrate the characters they saw in the play immediately after attending the performance of James and the Giant Peach.
- Gather and diagram pictures of real insects.
- Post labeled diagrams of insects in classroom.
- Introduce and/or review appropriate vocabulary, and post in the classroom.
- Facilitate discussion, focusing on observations of insects, identify body parts, functions of their body parts (seek, find, and take in food, movement, protection, etc), survival needs.
- Facilitate discussion of how insects appeared in the production and compare how the insects used their body parts for survival on the peach.
- Encourage students to explain if characters in the story could be real insects or not, and why. (focus on story being a fantasy)
- Ask 'how do you know?' questions, guiding students to give specific observations to support their statements.

Students will:

- Make and discuss observations of diagrams and pictures of insects and characters from production.
- Support his/her thoughts with specific observations.
- Identify body parts and functions of insects used for multiple purposes. (survival, protection, food gathering, etc.)
- Use scientific vocabulary.

Performance Assessment

Teacher will evaluate students' ability to:

- Share observations to support their thinking
- Use scientific vocabulary in oral and written work
- Name the different insects represented by the characters of the story
- Label worksheet/diagram of real insect body parts
- Compare real insects to story characters during discussion