

Arthropods

Section 3 Insects and their Relatives

Main Idea

Details

Skim Section 3 of the chapter. Examine each illustration and read the caption. Write three facts that you learn about the structures of insects.

1. **Accept all reasonable responses.**

2. _____

3. _____

Review Vocabulary

Use your book or dictionary to define pollen.

pollen

a fine powder produced by certain plants when they reproduce

New Vocabulary

Use your book or dictionary to define each term.

metamorphosis

series of major changes from a larval form to an adult form

pupa

nonfeeding stage of metamorphosis in which the animal changes from the larval form into the adult form

nymph

immature form of an insect that looks like a small adult without fully developed wings

caste

group of individuals within a society that performs specific tasks

Section 3 Insects and their Relatives (continued)

Main Idea _____

Details _____

Diversity of Insects

I found this information on page _____.

SE, p. 775
RE, p. 316

Conclude *how insects can live in many habitats.*

- ability to fly and adapt
- small size for easy movement
- exoskeleton for protection and for keeping them from drying out
- capacity to produce large numbers of offspring

External Features

I found this information on page _____.

SE, p. 775
RE, p. 317

Model *a grasshopper and label its external features.*

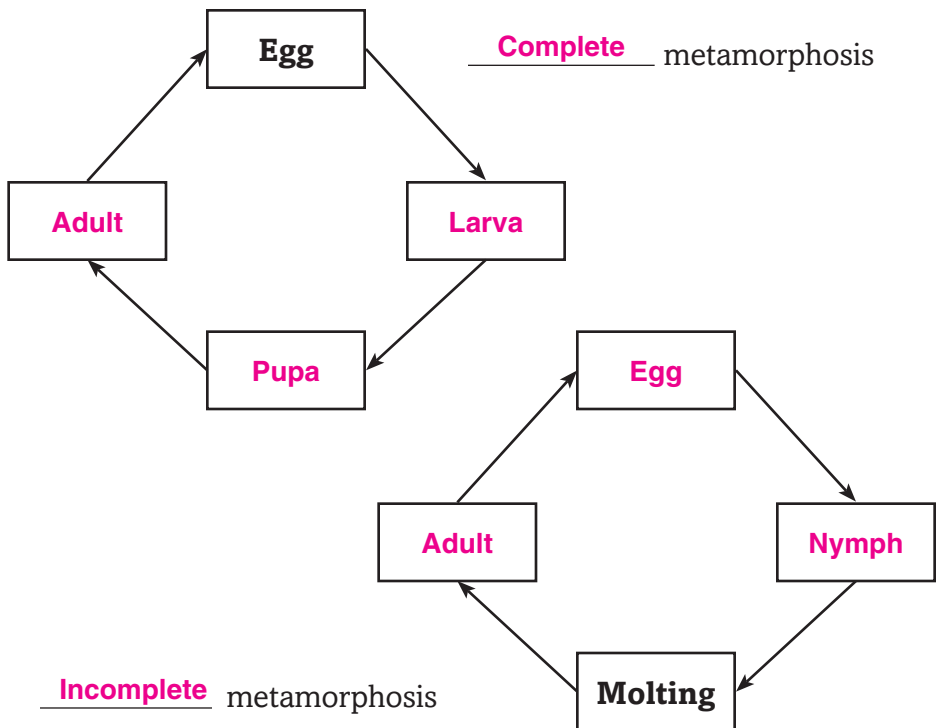
Drawings should resemble the figure on SE p. 775. Accept all reasonable variations. Body parts should be labeled.

Insect Adaptations

I found this information on page _____.

SE, pp. 776–780
RE, pp. 317–320

Sequence *the stages in two types of metamorphosis by completing the flowcharts below. Identify each type of metamorphosis.*



Section 3 Insects and their Relatives (continued)

Main Idea _____

I found this information on page _____.

SE, pp. 776–780
RE, pp. 317–320

Details _____

Model the honeybee’s waggle dance in the space below. Use labels to explain how the dance communicates where the food is.

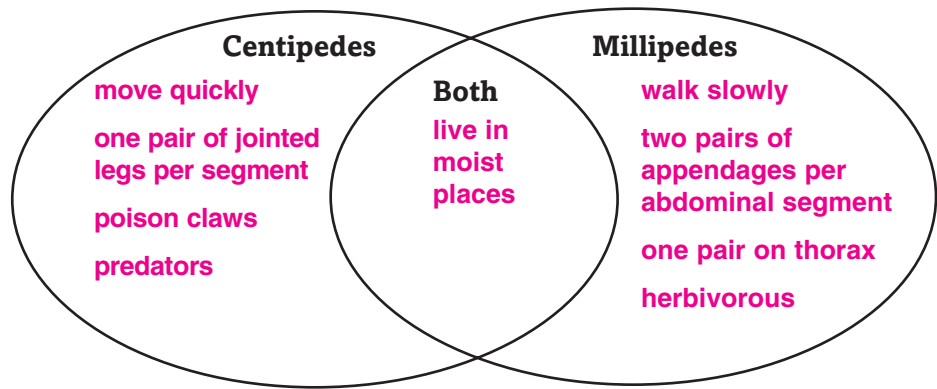
Sketches should resemble the figure on SE p. 779. Labels should indicate that the length of the straight line gives the distance to the food source. Also, the direction of the line relative to the vertical indicates the direction of the food relative to the Sun.

Centipedes and Millipedes

I found this information on page _____.

SE, p. 780
RE, p. 320

Compare centipedes and millipedes by listing their characteristics in the Venn diagram.



Evolution of Arthropods

I found this information on page _____.

SE, p. 781
RE, p. 320

Conclude in general how segmentation has evolved from ancestral arthropods to present-day arthropods.

Ancestral arthropods tended to have a large number of identical segments. This segmentation evolved into more specialized appendages and fewer segments in present-day arthropods.

SUMMARIZE

Compare and contrast insect features to other arthropod groups.

Accept all reasonable responses.
