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# *Introducing Insects*

The activities in this integrated unit of work may be enhanced by using one of the following texts or one of your own.

- *The Icky Bug Counting Book* by Jerry Pallotta
- *The Very Hungry Caterpillar* by Eric Carle
- *How Many Bugs in a Box?* by David A. Carter

## **Sample Plan**

### **Lesson 1**

- Set up your live bug habitats (page 6, Setting the Stage, #2).
- Read and discuss the selected text.
- Learn about the anatomy of an insect (page 5, #4).
- Complete a language activity (pages 31 and 32).

### **Lesson 2**

- Reread selected text
- Learn about caterpillars (page 10).
- Make a butterfly life-cycle wheel (page 5, # 5).
- Learn about butterfly symmetry (page 5, #6).
- Complete the tissue-paper butterfly art project (page 54).

### **Lesson 3**

- Ask students to orally retell the selected text.
- Discuss paper wasps.
- Make paper (page 5, #7).
- Complete one of the 'All About Insects' activities (pages 44 and 45).
- Complete 'Bug Sets' (page 38).

- Complete a language activity (pages 31 and 32).

### **Lesson 4**

- Share some interesting bug facts (page 74).
- Complete 'What Am I?' (page 33).
- Participate in the ABC challenge (page 12).
- Complete a creepy crawly counting activity (page 39).
- Complete a language activity (pages 31 and 32).
- Read some of the bug poems (page 30).

### **Lesson 5**

- Share more interesting bug facts (page 74).
- Complete the visual discrimination activity (page 34).
- Complete another creepy crawly counting activity (page 39).
- Discuss camouflage and mimicry. Complete the activity discussed on page 48.
- Make an insect big book (page 13).
- Sing bug songs (pages 57 and 58).
- Write bug songs (page 6, #4).

# Overview of Activities

## Setting the Stage

1. To prepare yourself for teaching about bugs, read the scientific information found on pages 74 and 75.
2. If you plan to have live bug habitats in your classroom, make arrangements to order your bugs and prepare their homes before beginning the unit (pages 49 and 50).
3. Set the tone in your room by setting up the insect anatomy bulletin board (page 66) and creating a beehive (page 69).
4. Create a learning centre to generate interest in bugs. On a table, display a variety of bug books. Invite your children to view these books in their free time. Provide paper and crayons at the centre as well. Invite your children to draw pictures of interesting bugs they find in the books. Post the pictures around the centre area.
5. Ask your children to share any experiences they have had with bugs. What kinds of bugs have they seen? Where have they seen them? How do they feel about them? Do they have favourites? Why? If each child could choose to be a bug, which one would it be and why?
6. Ask children to think about the things they already know about bugs. Using chart paper, draw a three-column KWL (Know, Want To Know, Learnt) chart. Have the children dictate their thoughts to you. Record their responses in the first two columns. The final column should be completed throughout the unit as the children learn new information about bugs.

## Enjoying the Book

1. There are many vocabulary words associated with bugs. Introduce some of these words before reading (or as the words are introduced in the book) and discuss their meanings. See page 77 for a glossary of terms.

**colony**

**thorax**

**antennae**

**prey**

2. Gather the children in a semi-circle on the floor so all can see the book title. Spend a few minutes discussing the new book. Draw your children's attention to the book's cover. Have them find the title. Ask them to tell you who wrote the book. Who did the illustrations? What bugs might be mentioned in the book? Tell the children that this book tells about 26 different bugs.

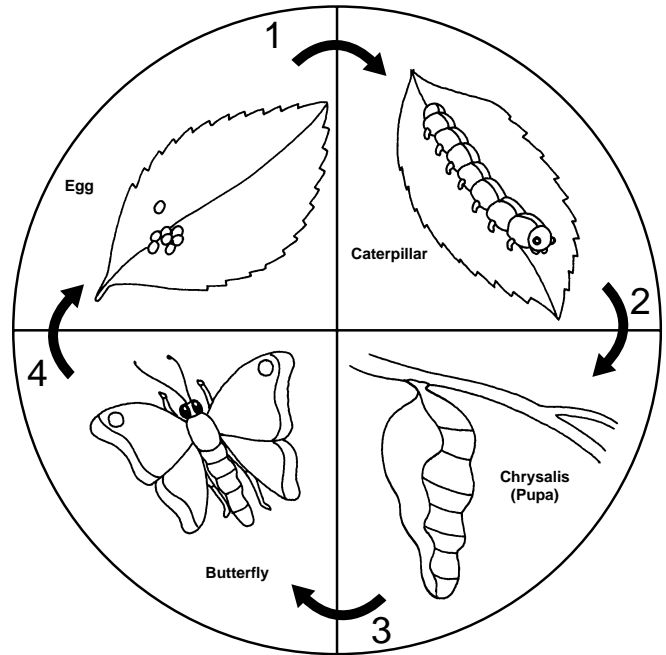
# Overview of Activities *(cont.)*

## Enjoying the Book *(cont.)*

- Each day that you read the book, ask the children to share facts that they found interesting. Add the learnt facts to your KWL chart. Encourage the children to ask you questions to help clarify concepts they do not yet understand.

- Distribute copies of page 7 and discuss the anatomy of an insect—a certain kind of bug. Draw attention to the three main body parts (head, thorax and abdomen) and ask the children to count the number of legs. Have them colour the page.

- Before completing the ‘Butterfly Life Cycle’ project (page 8), discuss the concept of life cycles with your children. A butterfly goes through many changes before it becomes an adult. Here are the four stages in the life cycle of a butterfly:



To make a butterfly life-cycle wheel, duplicate and cut out the pattern (page 8) one per child. Glue the wheel onto a paper plate; have the children colour the wheel.

- Explain to your children that butterfly wings are symmetrical—the patterns on both wings are the same. Show them pictures of butterflies so they can compare the wing pairs. Then have them complete page 9.
- Paper wasps live in colonies and work together to raise their young. They chew up plant material and use the plant pulp to make cells which the eggs are laid in. After your discussion of paper wasps, have your children experience what it is like to make their own paper (page 11).

Mention to your children that paper wasps are not the only insects that live in colonies. Ants and bees live in colonies as well. These insects are called social insects because they all work together to find food, raise babies and take care of their homes.

- After completing the ‘All About Insects’ activities (pages 44 and 45), play a follow-up review game. On each of several index cards, glue a picture of an insect, a spider and some other small creatures. Play the game by holding up a card for your children to see. Choose a child to tell whether or not the creature on the card is an insect. Have the child explain his or her reasoning. For example, “Yes, it is an insect because it has a head, a thorax and an abdomen,” or “No, it is not an insect because it has eight legs.” Continue in this manner for the remaining pictures.

# Overview of Activities *(cont.)*

## Enjoying the Book *(cont.)*

9. Bugs eat many different things. Ask your children to tell you what they know about the kinds of food bugs like to eat; then share some of these bug-food facts.

- *Monarch butterfly larvae eat milkweed plants.*
- *Ladybirds eat aphids.*
- *Cicada nymphs eat the roots and juices of trees.*
- *Praying mantises and wasps eat other bugs.*
- *Bees eat pollen and nectar from flowers.*
- *Stick bugs eat leaves.*
- *Dragonfly nymphs eat insects, tadpoles and small fish.*
- *Aphids eat plant sap.*

## Extending the Book

1. An entomologist is a scientist who studies insects. Ask your children to think about the things entomologists might do in their studies. What kinds of experiments would they do? What equipment would they use? What might they want to learn?
2. Unlike a bug, the skeleton of a person is on the inside of the body. Have each child feel the bones underneath his or her skin. Explain that a person's skeleton grows as he or she grows up. A bug (insect), however, has a different kind of skeleton—an exoskeleton. This is a skeleton on the outside of the body. An insect can only grow as big as its exoskeleton. When an insect outgrows its exoskeleton, it moults (sheds the outer skin) to reveal a larger skeleton in which to live. Many insects moult several times before reaching adulthood.
3. Page 74 provides factual information about ants, aphids, bees, butterflies, cicadas, cockroaches, crickets, dragonflies, ladybirds, mosquitoes and praying mantises. You may want to introduce the information as these particular bugs come up in your discussions or, perhaps, focus on one or two bugs each day.
4. The 'Write a Song' activity (page 59) is a fun group language experience. Copy the song outlines onto chart paper. Encourage the children to suggest appropriate words to complete each song.
5. As this portion of your bug unit comes to a close, ask your children how they feel about bugs now that they have studied them. How many children think that bugs are still icky? How many think bugs are 'cool'? How many think they are interesting? How many would like to learn more about them?

# Interesting Insects

Insects are interesting. Colour in the bug, using a different colour for each of the main body parts (head, thorax and abdomen) and for the antennae, eyes and legs.

