

I like bugs.  
Black bugs,  
Green Bugs,  
Bad Bugs,  
Mean bugs,  
Any kind of bug.

A bug in a rug,  
A bug in the grass,  
A bug on the sidewalk,  
A bug in a glass--  
I like bugs.

**Ideas for Bug Rubbing Plates:**

1. Crayon rubbings, note body parts and features, and habitats.
2. Playdoh imprints
3. Use watercolors to paint on the plate, let dry, hang as a suncatcher.
4. Use foil to cover plates, rub over them for a different texture.

**Flannelboard Ideas:**

1. Sort by category: Insect/Not Insect
2. Sort by attributes: by color, shape, size, habitat, or design.
3. Place them on the flannelboard and tell a story about them.

**Activity Ideas for Small Bug Realia:**

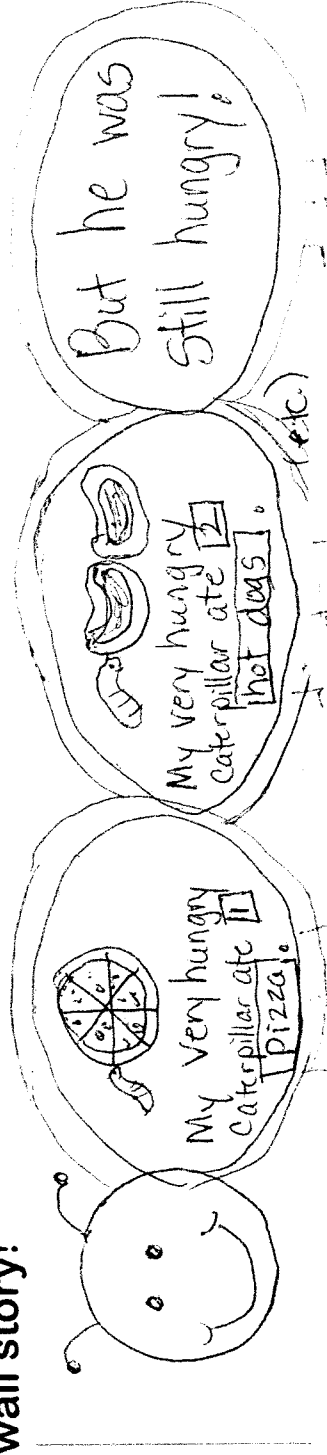
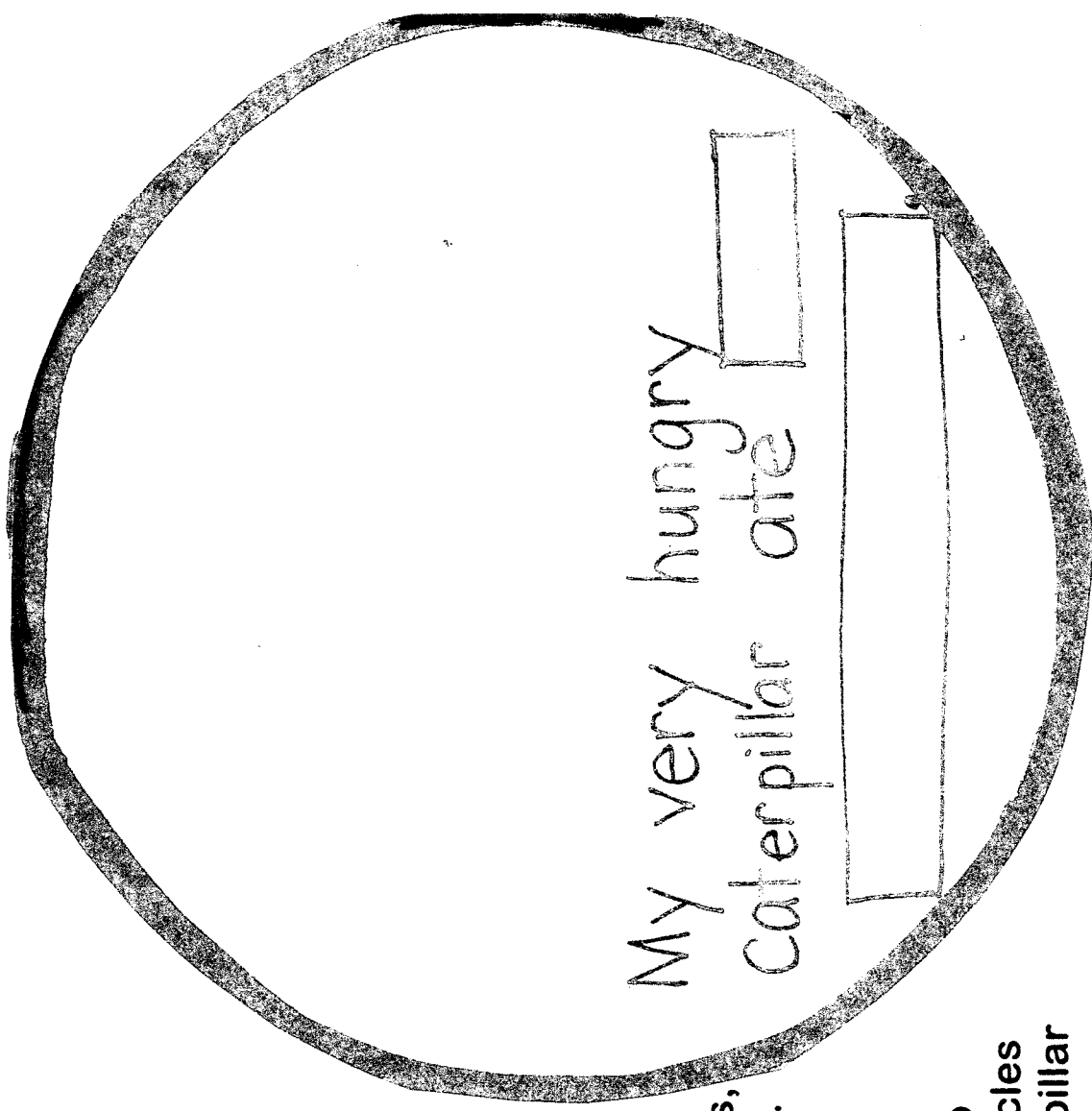
1. Sorting by color, shape, size, type, etc.- in muffin tins or egg cartons.
2. Patterning
3. Counting
4. Making groups of more/less
5. Addition and Subtraction

**Insect Behaviors to Roleplay:**

1. **Ants**: Act out the different roles: queen (mates, sheds wings, lays eggs), males (mate once and die), female workers (care for the queen, watch over the eggs, larvae, and pupae, dig out additional nests, communicate with antennae, store food, and defend themselves by spraying or stinging).
2. **Termites**: queen (mates repeatedly to keep producing eggs), male and female workers supply food and build nests, fight with ants who use them as food, and are very social.
3. **Bees**: queen (lays eggs), drones (mate with queen), female workers (take care of the hive and the queen). Bees suck nectar and eat pollen. Queen bees can sting and live, but worker bees sting and then die.
4. **Flies**: can fly backwards, hover like a helicopter.
5. **Butterflies**: slowest of all insects, fly during the day, sleep at night, drink nectar and eat pollen.
6. **Crickets**: listen with ears located on their legs, camouflage themselves, male crickets sing by rubbing legs together.
7. **Fleas**: can jump a foot into the air, suck blood.
8. **Spiders**: spin webs.

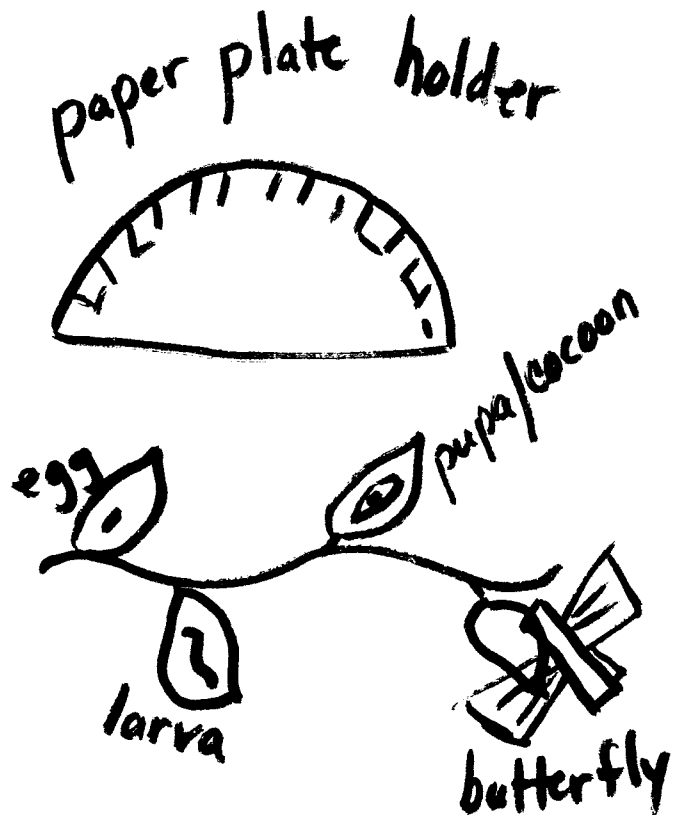
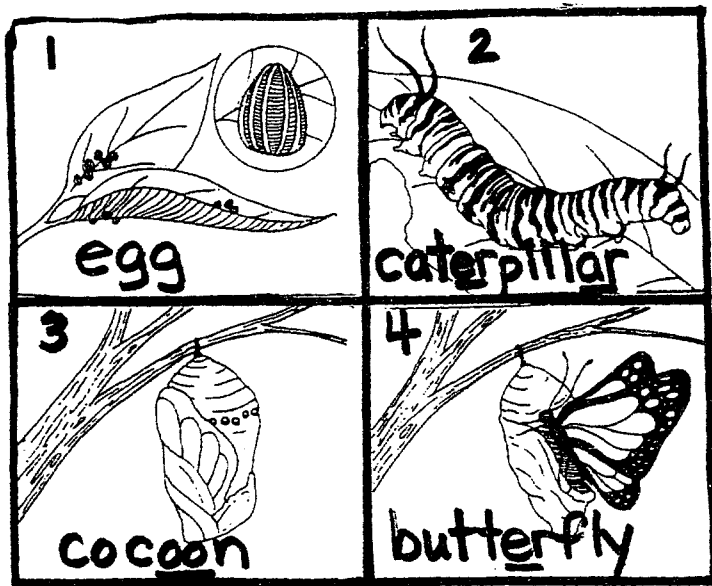
## Very Hungry Caterpillar Paper Plate Art Project:

1. Give each child a regular sized paper plate. Paint the edges green, leaving the center white.
2. Have each child draw in the → circle something their very hungry caterpillar would eat, and draw a certain number of those foods (e.g., 3 hot dogs, or 5 pizzas, or 10 apples, etc.). Then, fill in the boxes with the corresponding words.
3. Cut out the circle and glue it to the paper plate. Join kids' circles together to form a giant caterpillar wall story!



## Insect Life Cycle Paper Plate Project

1. Color, cut out, and glue life cycle pictures onto the front of a folded paper plate that has been stapled closed, except at the top- leave about 5 inches open.
2. Prepare for each child a string that has 4 plastic leaves attached to it, at intervals.
3. Glue on the first leaf a small bead, to represent the egg.
4. Glue on the second leaf a small piece of brown chenille to represent the larva.
5. Glue on the third leaf an almond in its shell. The shell represents the cocoon, and the almond inside represents the pupa.
6. Decorate a clothespin with markers, and clip a square of tissue paper to it to represent the butterfly's wings. Clip the "butterfly" to the last leaf.
7. Store your life cycle pieces inside the paper plate holder, until you're ready to tell the lifecycle sequence story. Then pull out one leaf at a time as you tell each part of the sequence.



*(Use with modeling clay insects)*

## My Insect Report

Entomologist's Name \_\_\_\_\_

Date \_\_\_\_\_

My insect's name is \_\_\_\_\_.

It likes to eat \_\_\_\_\_.

It lives in the \_\_\_\_\_.

Here is how it moves. It can \_\_\_\_\_.

My insect is \_\_\_\_\_!

# The Insect Song

By Judy Ross

C C A A<sup>b</sup>A F  
I've got three body parts

F D D<sup>b</sup> D G  
And six legs to crawl

F E F F G E  
I've got two antennae

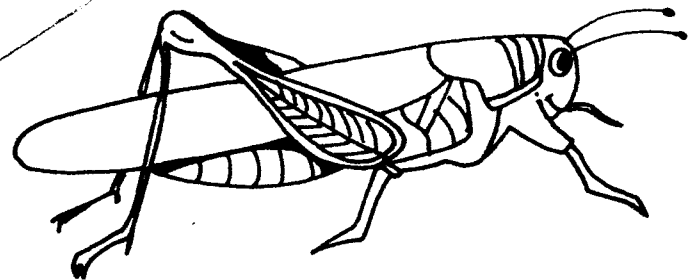
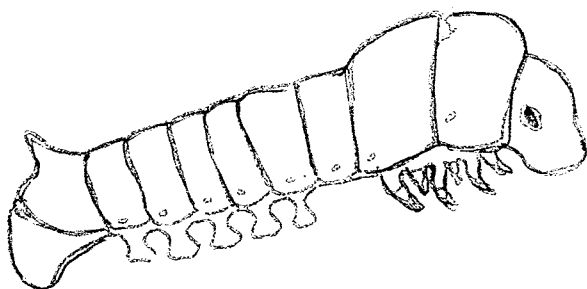
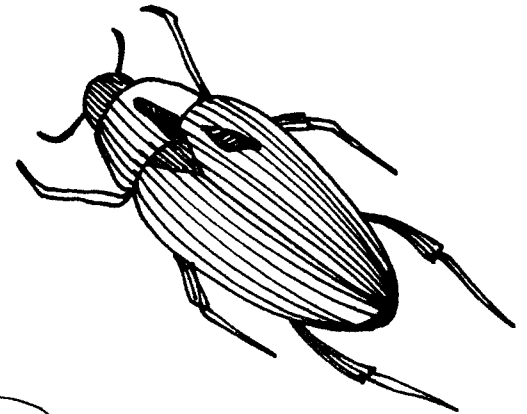
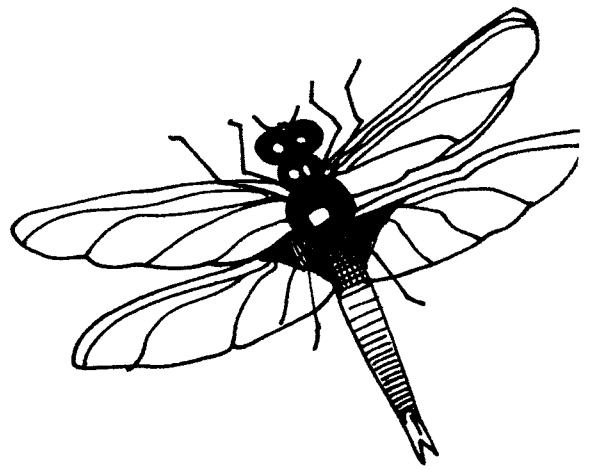
E D E D C  
And that's not all.

C C A A<sup>b</sup> A F  
I've got chewing mouth parts

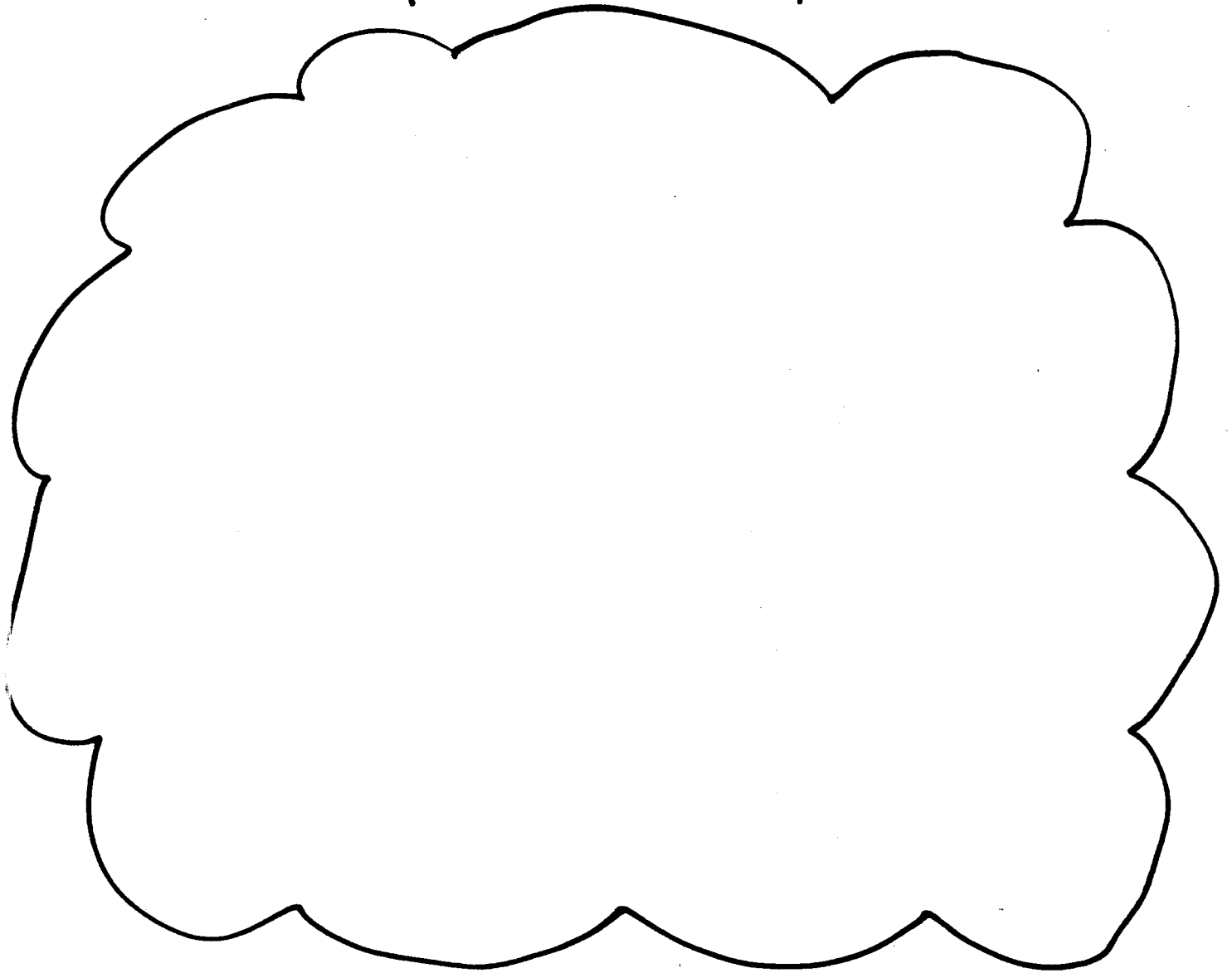
F F B<sup>b</sup> C D  
That can suck or sting

D C C C  
And none, maybe one,

C C B<sup>b</sup> A G F  
Or even two pairs of wings.



Name \_\_\_\_\_ Date \_\_\_\_\_  
(From the story Old Black Fly.)



Old black fly landed

on a  .

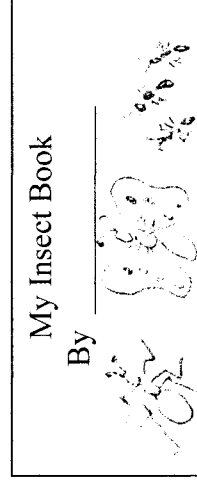
Shoo fly, shoo fly,  
shoo!

## My Insect Book

Do one page for each insect studied. Teachers can dictate for students, or students can write independently. Encourage “little entomologists” to use their five senses and descriptive words as they observe and write about our live insects!

Ideas for live insects to study: painted lady butterflies, ants, walkingsticks, mealworms, ladybugs, crickets, etc. Consider also non-insects (e.g., earthworms, millipedes, and pillbugs) as well as insects that we have only realia for (e.g., bees and flies).

Sample pages:



Name \_\_\_\_\_ Date \_\_\_\_\_  
Look at my painted lady butterflies!

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

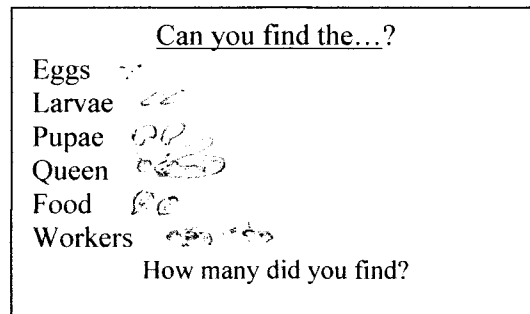
Name \_\_\_\_\_ Date \_\_\_\_\_  
Look at my ants!

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (etc.)



### Instructions for Making the Giant Anthill:

1. Cut out a large “anthill” shape from brown butcher paper.
2. Prepare pattern pieces from tagboard to represent “tunnels” and “rooms”. Read to kids the book, *Ant Cities* (or *Ciudades de Hormigas*) by Arthur Dorros. Show how an anthill has tunnels and rooms that are used to store food, act as a nursery, etc.
3. Have kids use the pattern pieces to trace (on tan construction paper) “tunnels” and “rooms”. They may then glue these onto the butcher paper “anthill”. Remind kids that the tunnels and rooms all have to connect, and that at least one tunnel needs to start from the bottom, top, or side of the “anthill” (so ants have a way to enter it).
4. After the “anthill” has dried, have kids glue “ants” in the “tunnels” and “rooms”. Use 3 black beans per ant, to show the 3 body parts, and make sure to have all the parts touch. (We don’t want any decapitated ants!) After the glue has dried, kids can draw, with a thin line black marker, 6 legs and 2 antennae per ant. Kids can also glue salt in some rooms (“eggs”), rice in others (“larvae”), light color beans (“pupae”) in other rooms, and sunflower seeds and popcorn kernels (“ant food”) in still other rooms. Remind them, though, that we mostly need lots of ants. Choose one ant to be the “queen”, and glue tiny pieces of plastic wrap to it for “wings”.
5. Next to your “anthill”, post a key, like the example below.

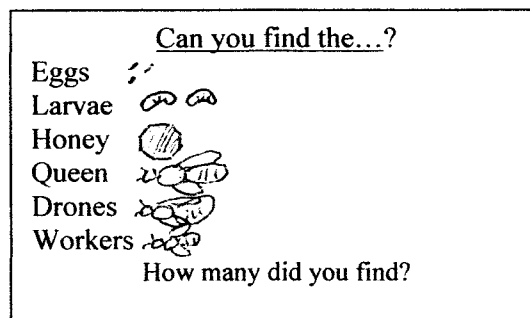


Make pattern pieces for the “tunnels” and “rooms” to be about this size:

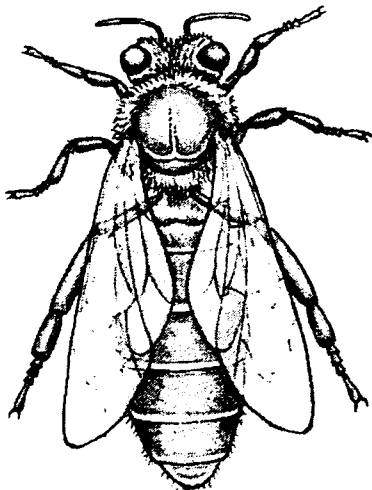


### Instructions for Making the Giant Beehive:

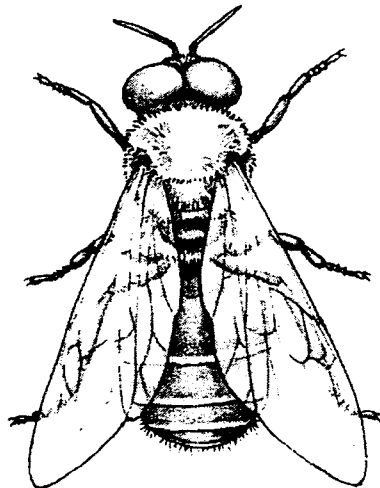
1. Run copies of bees on construction paper: use 1 color for the queen, a different color for the drones, and another color for the workers. Make 1 queen, many drones, and A LOT of workers. Have kids cut out the bees, and save them.
2. Using a large piece of tagboard, glue egg carton cells (which you've cut out beforehand) to form the "hive". Cells should all be touching.
3. Use rice grains to represent tiny "egg", white playdough pieces to form "larvae", and yellow playdough, pressed into the cells, to form the "honey". Some cells should have an egg, some a larva, some honey, and some can be empty.
4. Glue "bees" on top of the cells, and around them (to fill in the empty space on the tagboard around the cells). Display your "beehive"!
5. Next to your "beehive", post a key, like the example below.



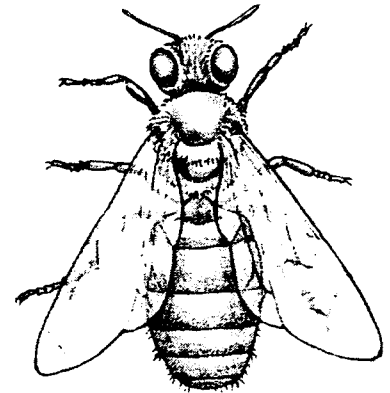
There are three kinds of bees in a beehive.



Queen



Drone



Worker

# My Silkworm Book

Do one page for each lifecycle stage observed. Teachers can dictate for students, or students can write independently. Encourage “little entomologists” to use their five senses and descriptive words as they observe and write about our changing silkworms!

## Sample pages:

My Silkworm Book By _____
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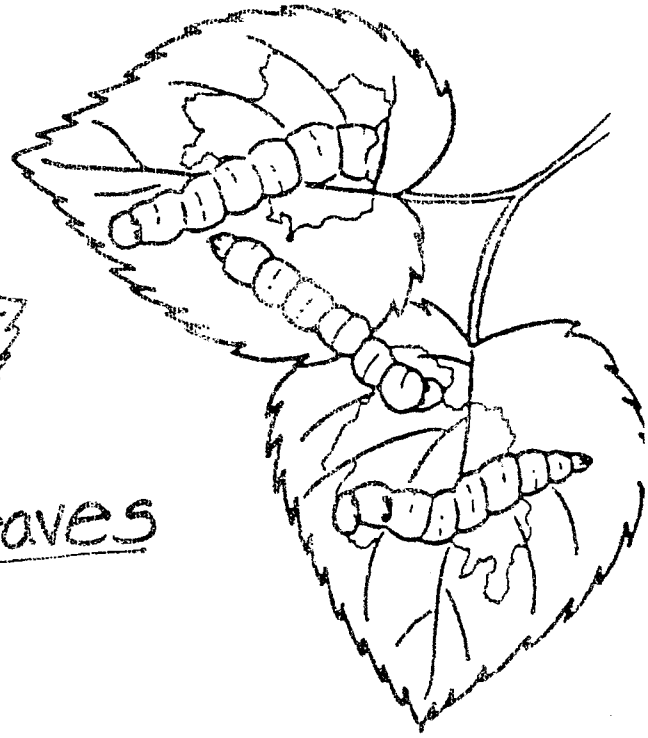
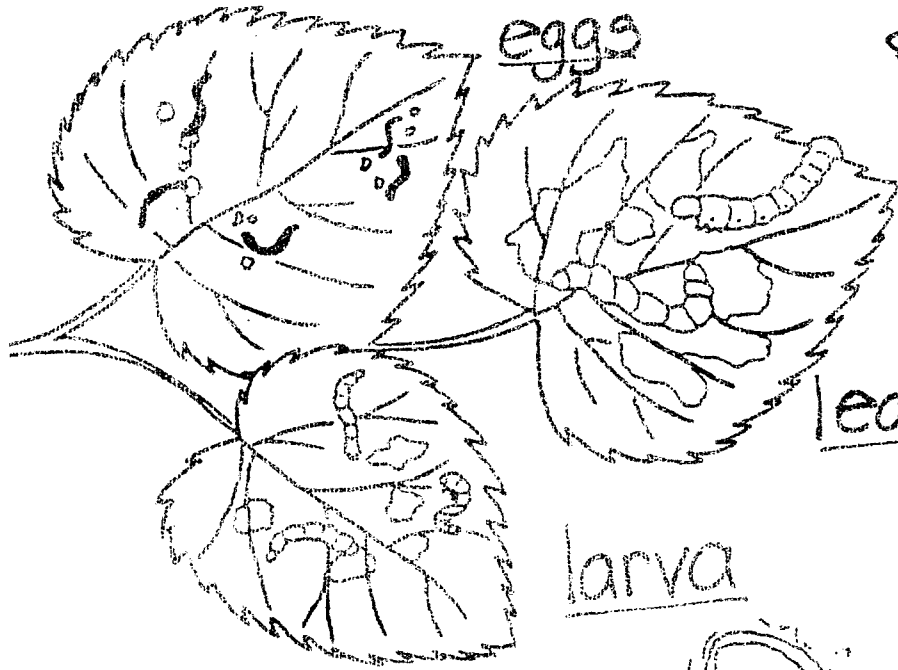
Name _____ Date _____ Look at my silkworm eggs!
_____
_____
_____

Name _____ Date _____ Look at my silkworm caterpillars!
_____
_____
_____

Name _____ Date _____ Look at my silkworm <b>cocoons!</b>
_____
_____
_____

Name _____ Date _____ Look at my silkworm <b>moths!</b>
_____
_____
_____

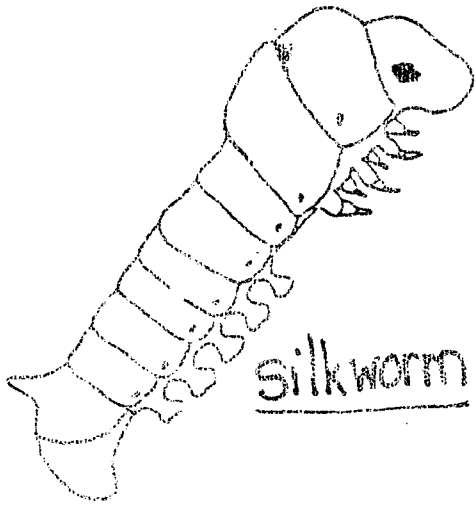
# Silkworm Words



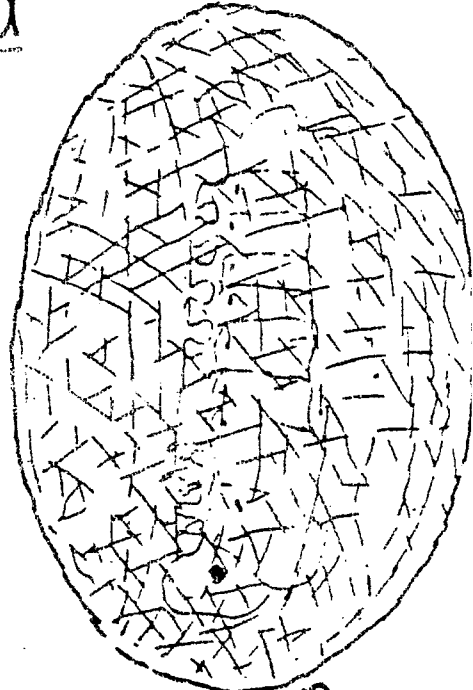
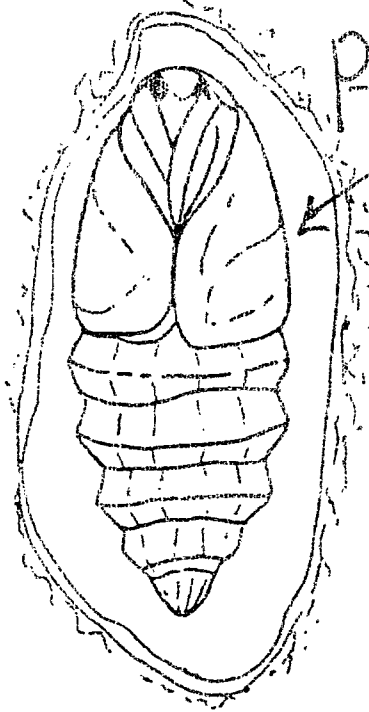
larva

leaves

pupa

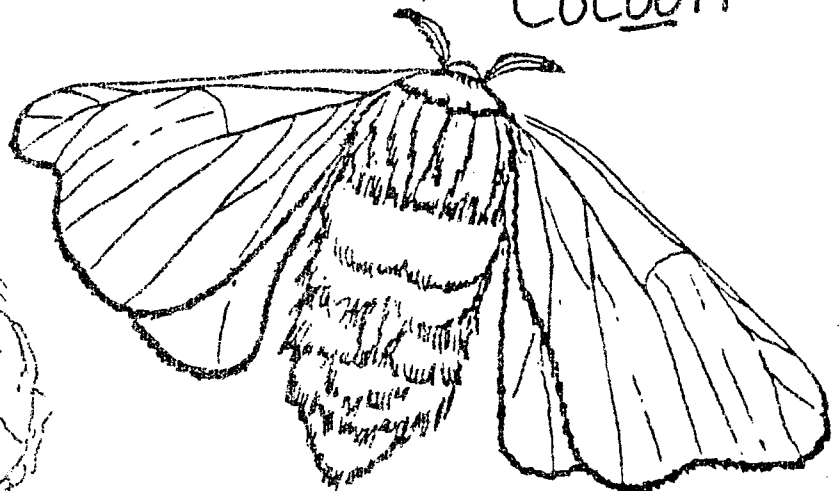
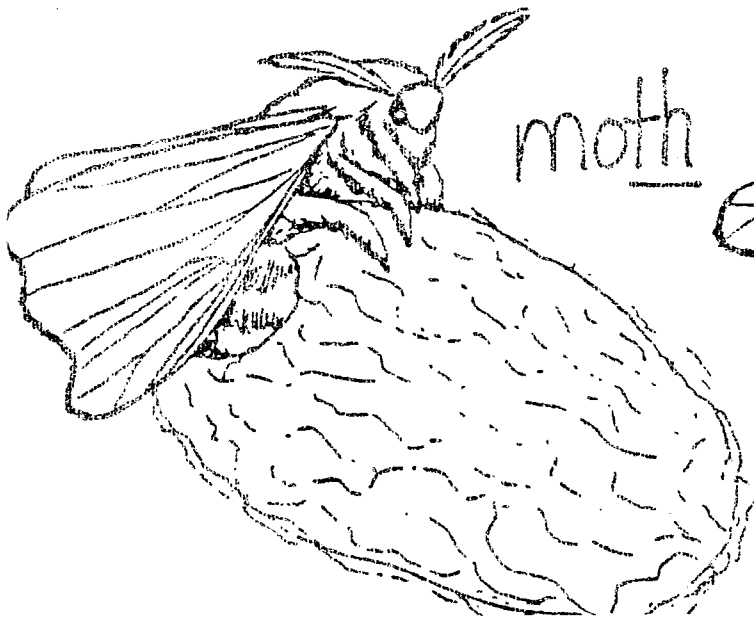


silkworm

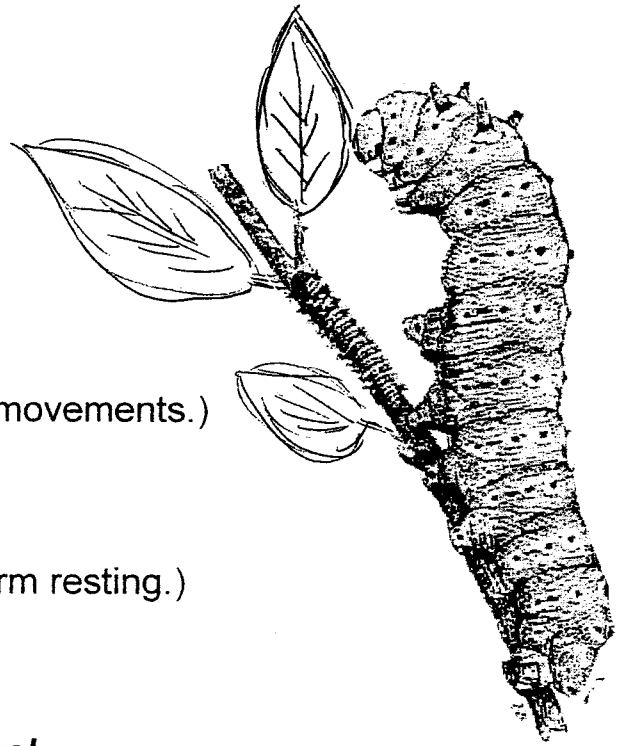


cocoon

moth



**Song of the Silkworm**  
Words written by: Judy Ross  
(Sung to the Tune of: *I Feel Good*)



***The silkworm eats.*** (Pantomime eating movements.)  
***We know that he does, now.***

***The silkworm rests.*** (Pantomime silkworm resting.)  
***We know that he does, now.***

***He grows...he molts...and then he spins!***

(Instrumental part- move head in a figure eight pattern, as a silkworm does when spinning.)

***The silkworm makes his cocoon.*** (Pantomime finishing the cocoon.)  
***We know that he does, now.***

***The silkworm pupates.*** (Pantomime silkworm becoming a pupa.)  
***We know that he does, now.***

***He feels good...that's why he sings... he's metamorphosing!***

(Instrumental part- shake our bodies, as the pupa does during metamorphosis.)

***Now he's a moth...breaking out... of his cocoon!*** (Pantomime this- fluttering "wings" rapidly, but moving very little. Kids could use a sheet of paper in each hand as they "flutter their wings"- it makes a more authentic sound. Continue pantomiming this as music fades out.)

# Silkworm Junior-Senior Researcher Project

Developed by Judy Ross, Glazier Elementary School

1. Divide your class into groups of about 4-5 each. Assign a parent, aide, or upper grade helper (“senior researchers”) to assist each group of “junior researchers”. Each group will use one of the following sources to research silkworm facts: books, magazines (such as Zoobooks), internet sources, interviewing last year’s class that already studied silkworms (“experts”), and observing live silkworms. Assign each group a different color, and give them black markers and a stack of sentence strips in their color. These can be 6”x9” construction paper strips. Each group should then work together to find and write down silkworm facts, 1 sentence per strip. The senior researchers can write the sentences, or write them in pencil and have the junior researchers trace them with the markers. Continue in this activity as long as students are interested. Plan on about 15-20 minutes for this part of the activity.
2. Next, have all researchers bring their facts to the carpet, where you have prepared a sorting chart (see below). Have groups one at a time present their facts, and allow for discussion to determine in which category each fact belongs. Glue facts under the appropriate category until all facts have been sorted. You may have to take a break and come back to this later to finish.
3. After all facts have been sorted, discuss the results. Which categories have the most information? Which have the least? Maybe one color group found more information in one category than another. What can we conclude? Keep this chart up and revisit it often as part of shared reading.

Sorting Chart:

Silkworm Researcher Project			
By Room 21			
What Silkworms Look Like (Appearance)	What Silkworms Do (Behaviors)	Life Cycle	Misc. Facts

## Book Resources

- *Ant Cities/Ciudades de Hormigas* (Arthur Dorros)
- *Beetle Bop* (Denise Fleming)
- *Bug Faces* (Darlyne A. Murawski)
- *Bugs: A Closer Look at the World's Tiny Creatures* (Jinny Johnson)
- *Bugs Up Close* (Diane Swanson)
- *Bugtown Boogie* (Warren Hanson)
- *Earthworms* (Adele D. Richardson)
- Eric Carle Stories: *The Very Hungry Caterpillar*, *The Very Clumsy Click Beetle*, *The Very Lonely Firefly*, *The Very Busy Spider*, *The Very Quiet Cricket*, *The Grouchy Ladybug*
- *Fascinating Insects* big book (Educational Insights)
- *Icky Bug Counting Book* (Jerry Pallota)
- *Icky Bug Numbers* (Jerry Pallota)
- *Inch by Inch* (Leo Lionni)
- Insect Series by Cheryl Coughlan (titles include: *Ants*, *Beetles*, *Bumblebees*, *Crickets*, *Dragonflies*, *Fireflies*, *Flies*, *Grasshoppers*, *Ladybugs*, and *Mosquitos*)
- Life Cycles Series by Donna Schaffer (titles include: *Mealworms*, *Millipedes*, *Painted Lady Butterflies*, and *Silkworms*)
- *More Bugs? Less Bugs?* (Don Curry)
- *Old Black Fly* (Jim Aylesworth)
- Scholastic Readers by Melvin and Gilda Berger (titles include: *Ants*, *Bees*, *Grasshoppers*, and *Ladybugs*)
- *Silkworms* (Silvia A. Johnson)
- *The Best Bug Parade* (Stuart J. Murphy)
- *The Butterfly Alphabet* (Kjell B. Sandved)
- *Walkingsticks* (Emily K. Green)
- *What is an Insect?* (Jenifer W. Day)
- *Zoobooks* (topics: butterflies, insects)

## Materials Resources

- **Backyard Bugs Pattern and Sequence Cards** (Learning Resources)
- **Bug Bingo** ([www.funfonix.com/bug-bingo/](http://www.funfonix.com/bug-bingo/))
- **Bug Rubbing Plates** (Roylco)
- **Creepers and Crawlers: Double Take- A Memory Card Game** (The Orb Factory)
- **Felt Wonders #2318 Creepy Crawlers** (flannelboard insects)
- **Giant Inflatable Parts of An Insect** (Learning Resources)
- **How Insects See!** (lenses set from Safari, Ltd.)
- **Insect Lore** ([www.insectlore.com/](http://www.insectlore.com/) or 1-800-LIVEBUG)
- **Microcosmos** (video/DVD distributed by Miramax)
- **Viewmaster reels: insects**
- **Where to buy live insects:** Walmart (bait section- for earthworms and nightcrawlers), your local pet store (for crickets, but check to see if they carry millipedes, and walkingsticks, too)