

**Project G.L.A.D.
Forest Grove School District
INSECTS
Idea Pages**

I. UNIT THEME

- Insects are the most successful animals on earth. They have easily identified characteristics and life cycles.

II. FOCUS/MOTIVATION

- Big book *Insects*
- Inquiry chart
- Observation charts
- Nature walk with student made bug catchers
- Insect collections
- Mealworms: students to observe, care for, and collect data from daily

III. CLOSURE

- Summary letter to parents
- Class power point presentation about mealworms
- Authors' party displaying Insect Notebooks
- Team chants/poems

IV. CONCEPTS/UNDERSTANDINGS

Science:

- How can one tell an animal is an insect?
- How are insects classified?
- Where do insects live?
- What are insects' basic needs?
- Does an insect have enemies? What are they?
- What is a cycle? What is an insect's life cycle?

Language arts:

- How can books help me to learn about insects?
- What are ways to share information I learn?
- What group skills do I use best and what do I need to practice?

V. VOCABULARY

invertebrate	antenna	exoskeleton
head	thorax	abdomen
entomologist	parts	insect
classify	mealworm	larva
pupa	colony	cycle
metamorphosis	wings	mouthparts

VI. ORAL LANGUAGE/READING/WRITING SKILLS

- Expresses personal thoughts in a group
- Reacts to speaker with appropriate questions
- Recalls specific details and main idea
- Introduction to nouns , adjectives, verbs, prepositional phrases
- Whole group write a paragraph
- Whole group create a power point or “hyperstudio” presentation
- Create a notebook with observations to share in pairs

VII. MATH/SCIENCE/SOCIAL STUDIES SKILLS

Science (from district frameworks):

1.01 diagram and explain cycle

2.01 use senses to gather information about objects & events in the environment. Know how to observe.

2.02 communicate results of observations through graphs, charts, tables, written descriptions, oral presentations

2.03 classify showing similarities, differences, & interrelationships

5.01 Classify organisms based on a variety of characteristics

TLW identify traits of an insect: six legs, 3 body parts, hatch from eggs, exoskeleton, and life cycles.

7.02 identify how some animals gather food, defend themselves and find shelter

VIII. RESOURCES AND MATERIALS

Nonfiction:

- *Insects and Spiders Picturepedia*, Paul Hillyard, Dorling Kindersley, 1993
- *The Best Book of Bugs*, Claire Llewellyn, Kingfisher, 1998
- *Insects*, David Drew, Celebration Press, 1997
- *From Egg to Butterfly*, David Drew, Celebration Press, 1997
- *Bugs! Bugs! Bugs!*, Jennifer Dussling, Dorling Kindersley, 1998
- *Bugs*, Nancy Winslow Parker, William Morrow, 1987
- *Flies Are Fascinating*, Valerie Wilkinson, Children’s Press, 1994
- *Fireflies in the Night*, Judy Hawes, HarperCollins 1991
- *Ant Cities*, Arthur Dorros, HarperCollins, 1987
- *Where Butterflies Grow*, Joanne Ryder, Dutton, 1989
- *Amazing Bugs*, Miranda Macquitty, Dorling Kindersley, 1996
- *Creepy Crawlies* .Cathy Kilpatrick, EDC Publishing
- *Insects & Spiders*, Penny Clarke, 1995 ISBN# 0-531-15282-0
- *Bugs & Slugs*, Judy Tatchel, 1999 ISBN# 0-7460-27737
- *Discovery Kids Insects & Spiders*, 1999ISBN# 0-525-4675-5
- *Readers Digest Pathfinder: Insects & Spiders*, 2000 ISBN#

- *Nature Scope: Insects*
- *Hiding Out: Camouflage in the Wild* by James Martins (Crown, 1993)
- *Insects*, Steve Parker, Dorling Kindersley, Inc 1992
- *Insects*, Althea , Troll 1990
- Jerry Pallotta, *The Icky Bug Alphabet Book* (Charlesbridge, 1989)
- Jerry Pallotta,, *The Icky Bug Counting Book*

Fiction:

- Audrey Wood, *Quick As A Cricket*
- Audrey Wood, *The Napping House*
- Paul Fleischman, *Joyful Noise: Poems for Two Voices*(The Trumpet Club 1975)
- Arnold Lobel, *Grasshopper on the Road* (Harper & Row 1978)
- Franz Brandenburg, *Fresh Cider & Apple Pie*
- Aileen Fisher, *When it Comes To Bugs*
- Bernard Most , *There's An Ant on Anthony*
- Chris Van Allsburg, *Two Bad Ants*
- Eric Carle, *The Very Hungry Caterpillar* (Philomel, 1981)
- Eric Carle, *The Grouchy Ladybug*
- Roald Dahl, *James and the Giant Peach*

Spanish Books:

- *Me pregunto por qué las arañas tejen telas*, Amanda O'Neill, Editorial Everest, 1996
- *¡Que bueno que haya insectos!*, Allan Fowler, Children's Press, 1991
- *Asombrosas mariposas*, John Still, Dorling Kindersley, 1991
- *Seres extraños*, Sharon Dalglish, Shortland, 1999
- *Sigue los pasos de un insecto*, Guillermo Solano Flores, Editorial Trillas, 1988

Organizations:

- **National Wildlife Federation**
1412 Sixteenth Street
NW Washington, D.C. 20036-2266
They offer excellent publications & curriculum on wildlife.
- **The Young Entomologists Society, Inc.**
1915 Peggy Place Lansing, MI 48910-2553
They offer a variety of publications, educational materials ad information network for insect enthusiasts.
- **Oregon Forestry Department**

Project G.L.A.D.
Forest Grove School District
INSECTS
Unit Planning Pages

I. FOCUS/MOTIVATION

- Big Book: *Insects- The Most Successful Animals On Earth*
- Inquiry chart
- Observation chart
- Nature walk with student made bug catchers
- Insect collection
- Mealworms to observe, care for and collect data daily

II. INPUT

- Pictorial inputs
- Read-alouds
- Narrative input
- Graphic organizers

III. GUIDED ORAL PRACTICE

- Chants
- Cooperative picture file activity
- Think –pair-share
- 10/2
- Farmer in the Dell
- Story Map
- Expert group sharing
- Process grid
- Team tasks

IV. READING/WRITING ACTIVITIES

A. Whole Class

- Class story time books- daily
- Read the Big Book Insects
- Brainstorm a list of story titles for the writing center
- Chants, poems
- Create a Farmer in the Dell chart

B. Cooperative Choices

- Group chant
- Whole class story illustrated in pairs/ group
- Retell the Narrative input of Roberto, Susana, and Insects
- ABC Book of Insects

C. Individual Choices/Writers' Workshop

- Daily observation & recording of changes in their own mealworms
- Class center of pictures, live insects, and models to stimulate a story
- Write sentences from the Farmer in the Dell chart

V. EXTENSIONS/ACTIVITIES FOR INTEGRATION

- Share a Bug collection
- Create drawings/ painting or sculpture of insects found or from a directed drawing book such as *Draw 50 Creepy Crawlies* by Lee J. Ames & Ray Burns (Double Day 1991)
- Make a model of an ant colony or termite castle
- Create a poem or song about insects
- Report on insects- become an expert about one kind of insect
- Add to the riddle board your own creation about any insect
- Investigate a camouflage book of insects and create one to share with a partner, group or whole class
- Find Internet site to share with the class(Check with teacher first)
- Invite a “Guest expert” to share with 1st grades
- Make a bug mobile
- Using information given in class, books or nature study – report with props to the class
- Make a pop up card with the habitat in the background and the insect fitting in there on the pop-up section
- Insects have 4 mouthpart types just right for the food they eat. Sort the plastic models as 1. Chomp & chew (grasshoppers/ beetles) 2. Pierce (mosquitoes) 3. Sponge (house flies) 4. Sip (butterflies/moths)

VI. CLOSURE/EVALUATION

- Given a page of creatures- circle the insects, a life cycle to paste in order & a page of “bug parts” to create an anatomically correct insect
- Entry to class power point or hyper-studio presentation
- Participation in group created chant
- Student Insect Notebook - to be shared at class author’s party

GLAD UNIT #016300001887

INSECTS

IDEA & UNIT PLANNING PAGES

11 CHANTS, BIG BOOK TEXT

6 PAGES ADDITIONAL POEMS

2 TEAM TASK MASTERS

2 GRAPHIC ORGANIZERS, 2 PICTORIALS

INSECT AND SPIDER EXPERT GROUP SHEETS

1 TEACHER MADE BIG BOOK

1 KID KIT: CREEPY CRAWLIES

2 NARRATIVE INPUT BACKGROUNDS, SPANISH AND ENGLISH

NARRATIVE PIECES (14) AND TEXTS

BEES WEEKLY READER POSTER

38 PICTURE FILE CARDS

BOOKS:

Two Bad Ants

The Icky Bug Alphabet Book

The Icky Bug Counting Book

Flies Are Fascinating

Hey, Little Ant

Bugs (Nancy Winslow Parker)

Where Butterflies Grow

Ant Cities (Reading Rainbow Stage 2)

Fireflies In The Night (Reading Rainbow Stage 1)

Buzz!! A Book About Insects

From Egg To Butterfly (David Drew)

Bugs!! (David T. Greenberg)

The Big Bug Ball

Insects (David Drew)

Bugs! Bugs! Bugs! (Eyewitness Readers Lv2)

Grasshoppers On The Road

Joyful Noise Poems For Two Voices (Paul Fleischman)

The Best Book Of Bugs

Picturepedia Insects And Spiders

SPANISH BOOKS:

Inside Guides Amazing Bugs

Libélulas

Cuenta los insectos

Mi caja de insectos

Ejércitos de hormigas

Seres extraños

Sigue los pasos de un insecto

INSECTS: THE MOST SUCCESSFUL ANIMALS ON EARTH

The most interesting fact about insects is that they're so successful they've been around 400,000,000 years.

Page 1

Insects:

- Have 3 body parts: a head, thorax, and abdomen
- Have 6 legs
- Have an exoskeleton
- Have antennae
- Are hatched from eggs

Page 2

Some insects are harmful.

Some insects are helpful.

Page 3

1st graders must know:

- How to recognize an insect (3 body parts- 6 legs)
- What a cycle looks like

Do you?

Page 4

Some insects *molt* their skins many times, changing body size each time!

What do you know about the exoskeleton?

What does it mean to *molt*?

Page 5

Did you know that insects *camouflage* to protect themselves from enemies?

But the most fascinating thing about insects is that there are so many of them on earth - more than all the other kinds of plants and animals put together!

Narrative Input Chart: English

NARRATIVE INPUT: Roberto, Susana and Insects

By Shannon Brown, 1st grade teacher & former 4H entomologist

Roberto is going into first grade and collects insects. He has an older sister Susana who is a 4-H entomologist and understands his love of crawling creatures. She helped him make a bug catcher and butterfly net. Roberto was excited for his sister to wake up and get going today. He was tired of lying in bed worrying about school starting in two weeks, so he went outside. Yeah! Susana's door opens.

They set off down the hill, over the railroad tracks and into the cow pasture. Susana was proud of all that Roberto knew: insects are the most successful animals and have 6 legs, 3 body parts, an exoskeleton, hatch from eggs, and have a life cycle. But today she would pour more facts into his head as they headed for the pond, where she hoped to find a new classification order to add to her collection for the county fair exhibit tomorrow. They ignored the ants on the ground and flies and bees flying overhead. They both already had those in their collections.

Roberto kicked a "cow pie"; it broke into pieces. He was looking for a solid one to fling like a Frisbee. This one was too fresh; he bent over and saw white wiggly worm things inside. Susana said that they were larvae of flies: little white blind maggots.

Roberto: You mean flies lay eggs in manure on purpose?

Susana: Oh yes! In fact there are dung beetles in Africa that do the same thing. They shape animal droppings into balls and roll them to their burrows. Then when their eggs hatch the larvae eat up the dung ball. Important job, right?

Roberto: Flies are disgusting eating dead stuff.

Susana: They eat dead stuff because they can't eat solids. They have mouthparts like straws or sponges and suck up food in liquid form. They have excellent eyesight, which is why they are so hard to swat.

Roberto: Look! I see some water skippers. Can I have your magnifying glass to see if I can see the little hairs on its feet that help it skate on the water surface?

A dragonfly flew by and as Roberto chased it, he tripped over a rotten log. He jumped up and caught the dragonfly on a rock before it took off. He remembered how Susanna said that many insects fly faster than people run. He studied it up close, and let it go. He wanted this guy to eat 300 mosquitoes like usual. As he came back to Susana, she told him that dragonflies have compound eyes with 28,000 lenses. She knew it was his favorite insect and loved teaching him new facts. But she was sad for herself, having found nothing new for her collection.

Roberto: Did you see me fall over that rotten log? I think termites are in that log, come check it out.

Susana kicked into action. Another order (Isoptera) for her collection! She had just been reading about it in her new book. She started talking fast as she always did when she got excited.

Susana: Homes for insects are built from all kinds of materials, and termite colonies can be taller than an elephant, and they even have tunnels that work like air conditioning, and they use droppings to make their cement stronger. I'm going to use dad's scanner and copy that page for you to take to school for sharing.

Roberto carefully caught a termite for his sister. The bug catcher worked well. He added a few wood chips to the leaves he had placed on the bottom of his bug catcher. He thought to himself that having a big sister was great-even fantastic-except when she ate the last chocolate chip cookie or something. And she did have a habit of telling him way more than he wanted to know. Like the time she showed him the picture in her new book of the boy eating a grub. He could imagine maybe eating the honey pot ants or chocolate covered ones, but never that grub!

Roberto and Susana started for home with smiles on their faces and in their hearts.

ROBERTO, SUSANA Y LOS INSECTOS

Por Shannon Brown

traducción al español por Margarita Boyce, Elizabeth Aguilar y Laura Curry

Roberto colecciona insectos, y pronto comenzará el primer grado. Tiene una hermana mayor, Susana, quien es entomólogo, y ella entiende su cariño por los bichos. Ella le ayudó a hacer una trampa para insectos y una red para atrapar las mariposas. Roberto estaba muy ansioso que su hermana despertara para comenzar el día. Estaba muy cansado de estar acostado en su cama preocupado acerca de la escuela, que empezará dentro de dos semanas. ¡Yeah! Por fin la puerta de Susana se abrió.

Se lanzaron bajando la loma, siguieron sobre las vías del tren y se entraron en la pastura de las vacas. Susana estaba orgullosa de todo lo que Roberto sabía: Los insectos son los animales con más éxito, tienen 6 patas, 3 partes del cuerpo, un dermatoesqueleto, nacen de huevecillos, y tienen un ciclo de vida. Pero hoy le gustaría darle a Roberto más información, mientras caminaron al estanque, donde ella esperaba encontrar una clasificación nueva para agregarla a su colección y exhibirla en la feria el día siguiente. Ellos ignoraron las hormigas del suelo, y las moscas y las abejas que volaban sobre sus cabezas. Ya los tenían esos en sus colecciones.

Roberto pateó un estiércol de vaca y éste se rompió en pedacitos. Estaba buscando uno que estuviera entero para poder tirarlo como un "Frisbee", pero éste era muy fresco. Se agachó y vio unas cosas adentro que parecían lombrices blancas meneándose. Susana dijo que eran unas larvas de moscas: pequeños gusanos ciegos.

Roberto: ¿Quieres decir que las moscas dejan huevecillos en el estiércol a propósito?

Susana: ¡Oh sí! De hecho allá en África hay escarabajos que hacen lo mismo. Con el estiércol de los animales forman unas pelotas y las van enrollando a sus nidos. Entonces cuando sus huevecillos nacen, la larva se va comiendo las pelotas de estiércol. Es un trabajo importante, ¿verdad?

Roberto: ¡Qué repugnantes y groseras las moscas, comiendo cosas muertas!

Susana: Ellas comen cosas muertas porque no pueden comer cosas sólidas. Ellas tienen partes en la boca como popotes o esponjas y absorben comida en forma líquida. Tienen una vista excelente, y es por eso que es muy difícil aplastarlas.

Roberto: ¡Mira! Veo algunas arañas del agua. ¿Me prestas tu lupa para ver si puedo distinguir los pelitos de sus patas que les ayuda a patinar sobre la superficie del agua?

Una libélula voló cerca y Roberto la siguió, y tropezó contra un tronco podrido. Brincó y atrapó a la libélula antes de que ésta desapareciera. Se acordó que Susana había dicho que muchos de los insectos pueden volar más rápido que la gente puede correr. Estudió ésta muy de cerca y la dejó ir. Él quería que se comiera 300 mosquitos como era su costumbre. Cuando se regresó con Susana, ella le dijo que las libélulas tienen ojos compuestos, con 28,000 lentes. Ella sabía que este insecto era su favorito y le encantaba enseñarle nuevos datos. Pero Susana estaba triste, porque no había encontrado todavía nada nuevo para su colección.

Roberto: ¿Me viste caer sobre ese tronco podrido? Pienso que hay termitas en aquel tronco. Vamos a investigar.

Susana se puso en acción. ¡Otra orden más para su colección! Hacía poco que había estado leyendo acerca de este insecto en su libro nuevo. Comenzó a hablar rápidamente como siempre lo hacía cuando se ponía muy entusiasmada.

Susana: Las casas de los insectos son construidas de muchos diferentes materiales, y las colonias de las termitas pueden ser más altos que un elefante, y tienen túneles que funcionan como el aire acondicionado, y usan sus excrementos para hacer un cemento muy resistente. Voy a usar el tomógrafo (escáner) de Papá para copiarle la página sobre termitas para que la lles a la escuela para compartirla con tus compañeros.

Roberto cuidadosamente atrapó una termita para su hermana. La trampa funcionó bien. Agregó unos pedacitos de madera a las hojas que ya había puesto en el fondo de su atrapa bichos. Pensó que era maravilloso--pues fantástico-- tener una hermana mayor, excepto cuando se comía la última galleta, o algo parecido. Además, su hermana tenía la costumbre decirle más cosas de lo que él quería saber. Como la

vez cuando le enseñó de su libro nuevo una fotografía de un niño comiéndose un gusano. El se podía a lo mejor imaginarse comer una hormiga melífera, o unas cubiertas de chocolate, ipero nunca un gusano!

Roberto y Susana comenzaron de regreso el viaje a casa, con sonrisas en sus rostros y en sus corazones.

Chants

I'M A LITTLE INSECT EGG

(to the tune of "I'm a Little Piece of Tin")

by Shannon Brown

I'm a little insect egg,
Watch me hatch, please don't beg.
I will be a larva soon,
Think I'll wiggle out by noon.

I'm an egg.

I'm an egg.

I'm an E-G-G, egg!

I eat and eat so much each day,
Soon I'll be a pupa they say.
Then I'll be so very quiet,
No need to feed me, I'm on a diet.

I was an egg.

I was an egg.

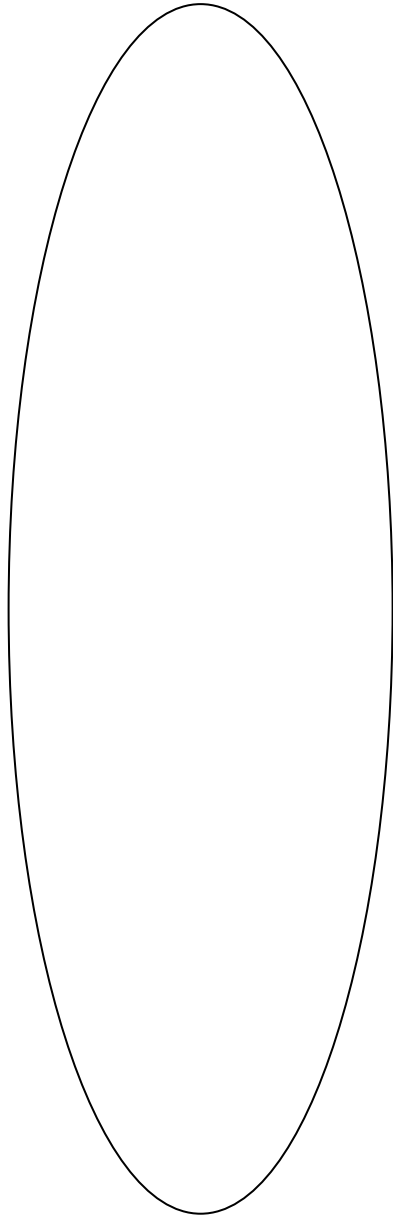
I was an E-G-G, egg!

Something's happening to me inside,
My shape is changing, eyes open wide.
3 body parts with 6 legs, it's true,
Antennae, wings, and an exoskeleton too.

I was an egg.

I was an egg.

I was an E-G-G, egg!



INSECTS HERE, INSECTS THERE

By Shannon Brown

Insects here, insects there-
Insects, insects everywhere!

Insects in the water.
Insects on the tree.
Insects under rocks.
Insects on me.

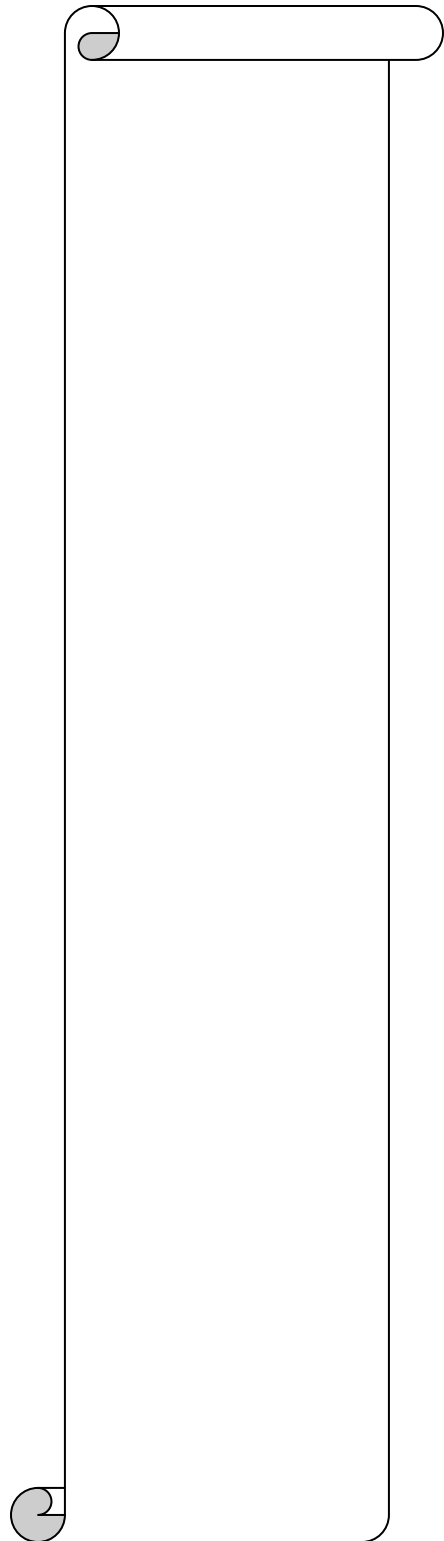
Insects here, insects there-
Insects, insects everywhere!

Attached to their thorax,
You'll find 6 legs there.
A pair of wings and
2 antennae waving in the air.

Insects here, insects there-
Insects, insects everywhere!

Insects have a head
And an abdomen too.
Everywhere you look
You'll find insects near you.

Insects here, insects there-
Insects, insects everywhere!
Insects! Insects! Insects!



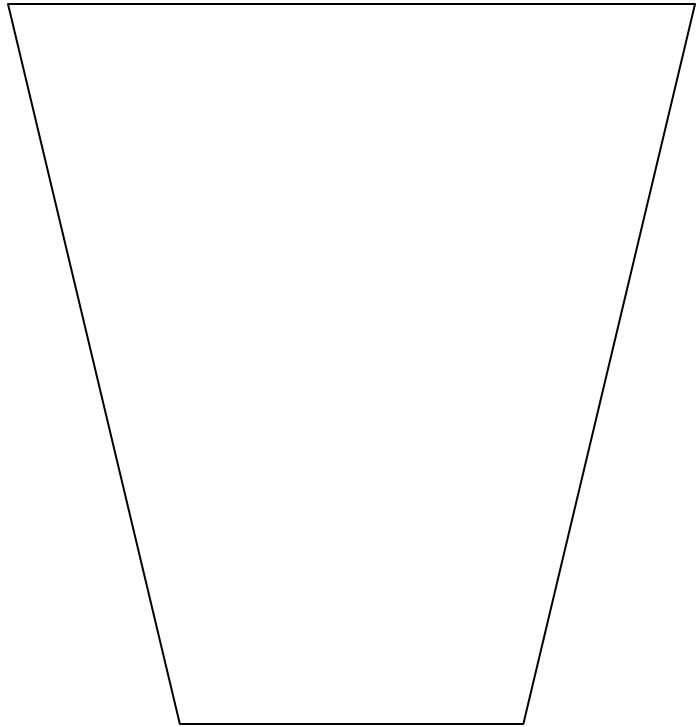
I CAN SPELL INSECT

By Shannon Brown

I can spell bug, b-u-g.
I can spell b-e-e.
I can spell ant, a-n-t.
But I can't spell *insect*.

I can spell leg, l-e-g.
I can spell fly, f-l-y.
I can spell wing, w-i-n-g.
But I can't spell *insect*.

Yes, I can! Yes, I can!
I-n-s-e-c-t, *insect*!



INSECTS? YES, MA'AM!

By Shannon Brown

Well, is this an insect?

Yes, Ma'am!

Well, is this an insect?

Yes, Ma'am!

Well, how do you know?

It has 3 body parts.

How else do you know?

It has an exoskeleton.

Well, how does it grow?

It hatches from an egg.

What else can you tell?

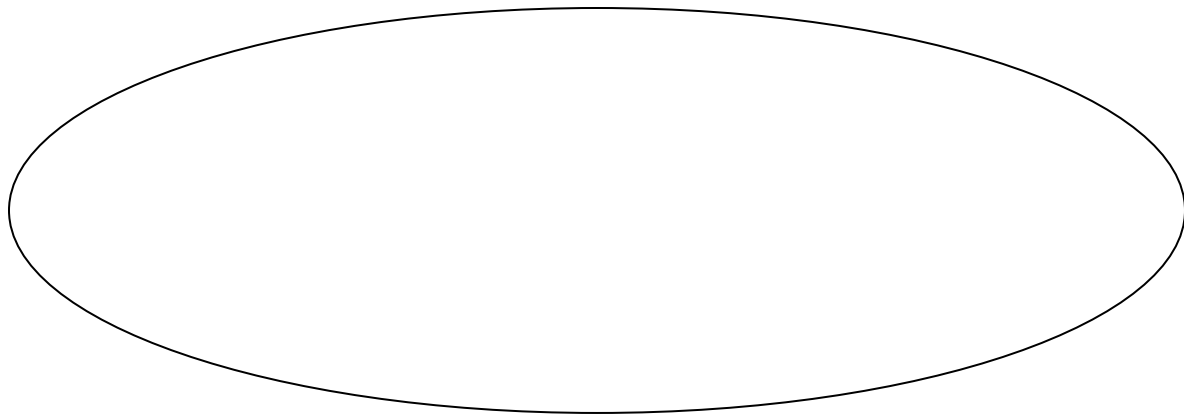
It has 6 legs.

Does it have a life cycle?

With an egg it begins.

How could it continue?

To larva, pupa and adult again.



Well is this an insect?

Yes, Ma'am!

Well is this an insect?

Yes, Ma'am!

Well, where does it live?

In any habitat.

Can it live anywhere?

Yes, how about that!

Can they take the cold?

Yes, to zero and below.

But can they take heat?

To 120 degrees it can go.

Do insects eat plants?

But some eat meat?

Are all insects harmful?

So you know a benefit?

Some are herbivores.

Some are carnivores.

Just some are that way.

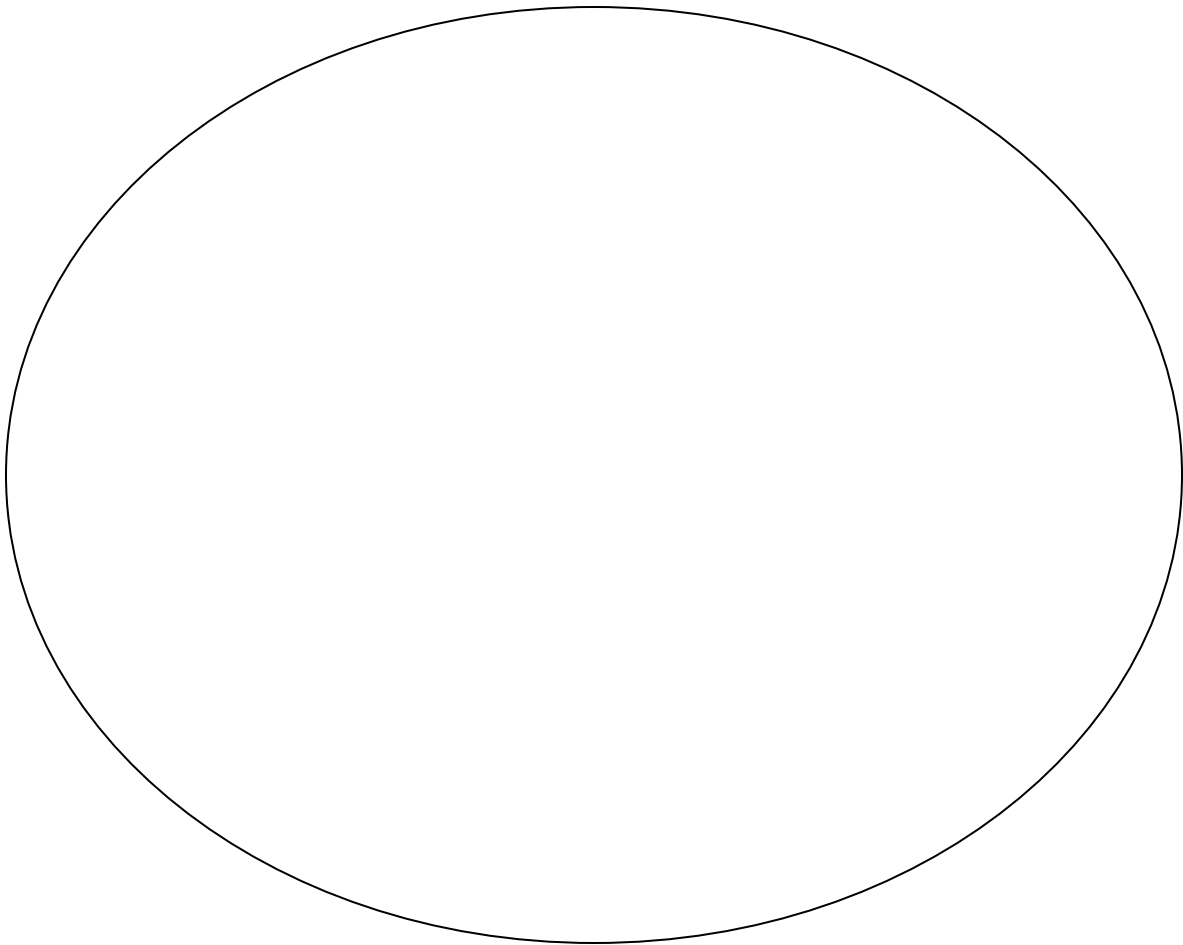
Dragonflies eat 300 mosquitoes a day!

So are insects everywhere?

Can you recognize an insect?

Yes, Ma'am!

Yes, Ma'am!



THE INSECT BUGALOO

By Shannon Brown

I'm an entomologist and I'm here to say,
"I'm going to teach you about insects today."

Starting with an egg,
The cycle does begin;
Then the larva hatches
And the eating has no end!

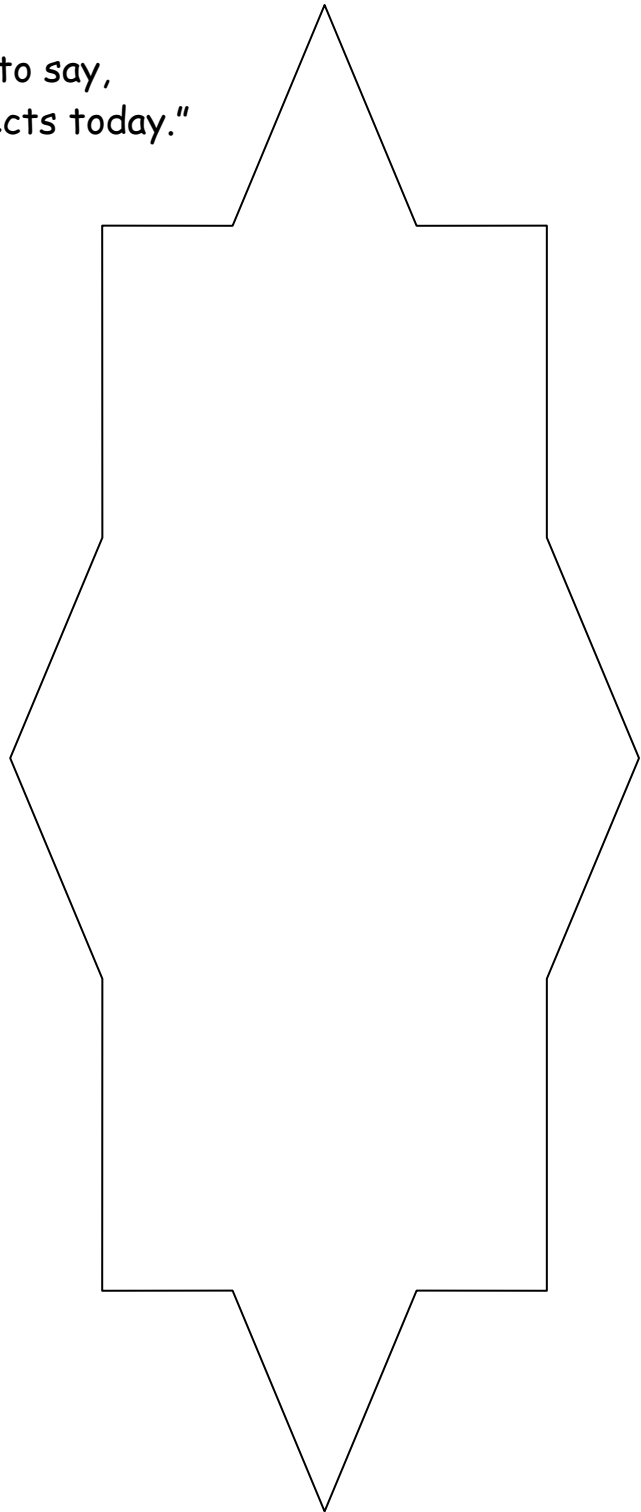
Head, thorax, abdomen too,
Doin' the insect bugaloo!

The larva gets so big,
The next stage happens fast.
The pupa looks quiet,
But this stage doesn't last.

.
Head, thorax, abdomen too,
Doin' the insect bugaloo!

The adult emerges;
It lays eggs and then,
We start the whole cycle
All over again!

Head, thorax, abdomen too,
Doin' the insect bugaloo.



COMPOUND EYE

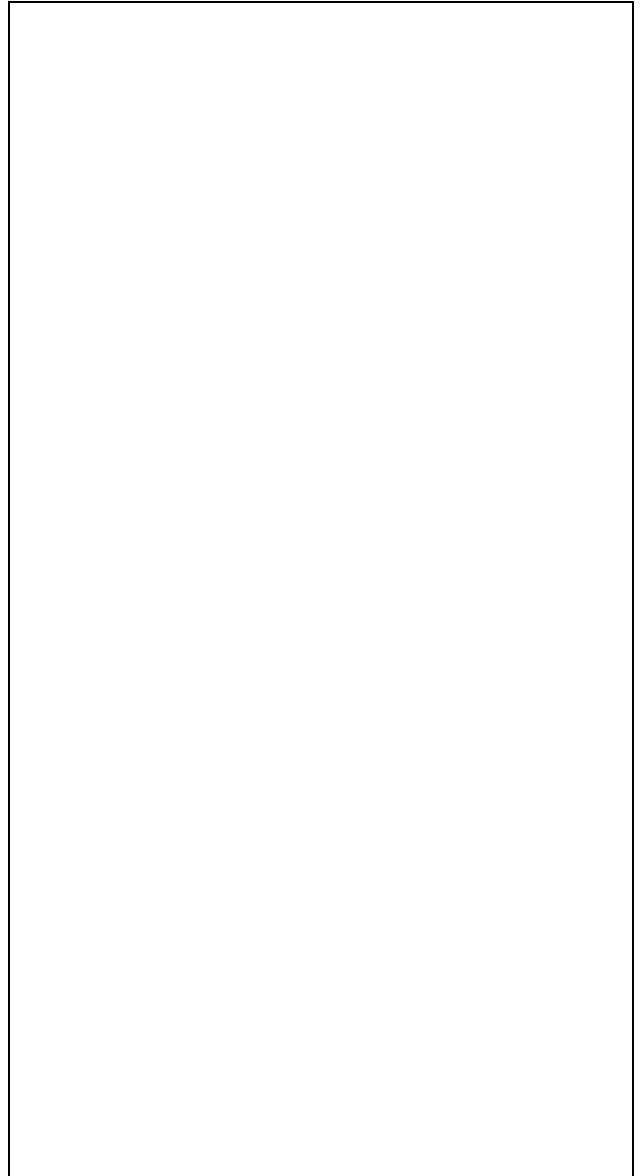
(sung to the tune of "Mary Had a Little Lamb")

by B. Mast

An insect has a compound eye,
compound eye, compound eye.
An insect has a compound eye
on each side of its head.

The compound eye has many lenses,
many lenses, many lenses.
The compound eye has many lenses,
From 9 to 30,000.

The lenses help them see fine details,
see fine details, see fine details.
The lenses help them see fine details,
even in the dark.



THE INSECT BUGALOO

By Shannon Brown

I'm an entomologist and I'm here to say,
"I'm going to teach you about insects today."

Starting with an egg,
The cycle does begin;
Then the larva hatches
And the eating has no end!

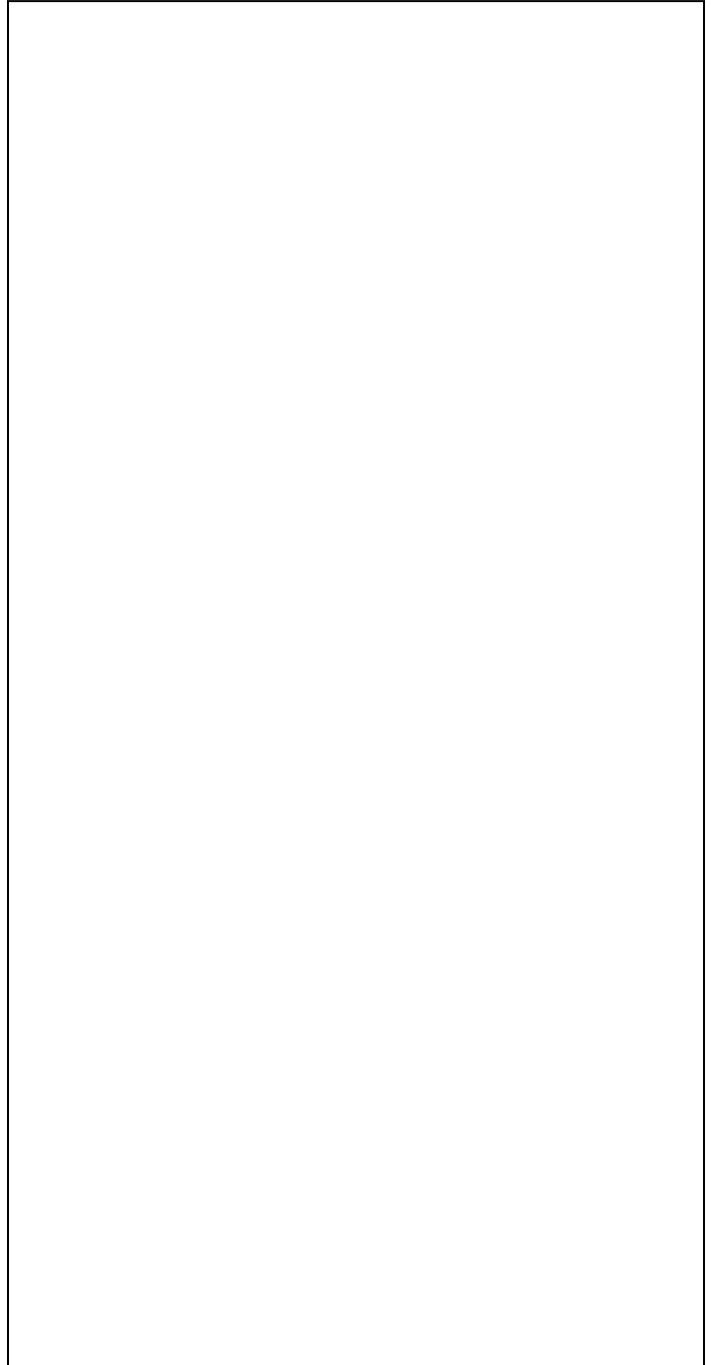
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The next stage happens fast.
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Head, thorax, abdomen too,
Doin' the insect bugaloo!

The adult emerges;
It lays eggs and then,
We start the whole cycle
All over again!

Head, thorax, abdomen too,
Doin' the insect bugaloo.



INSECT BUGALOO

By John Gorman

What's an insect? I'll tell you now:
Animals with six legs and that's how
You'll know if it's an insect or not,
But that's not all, there's a lot:

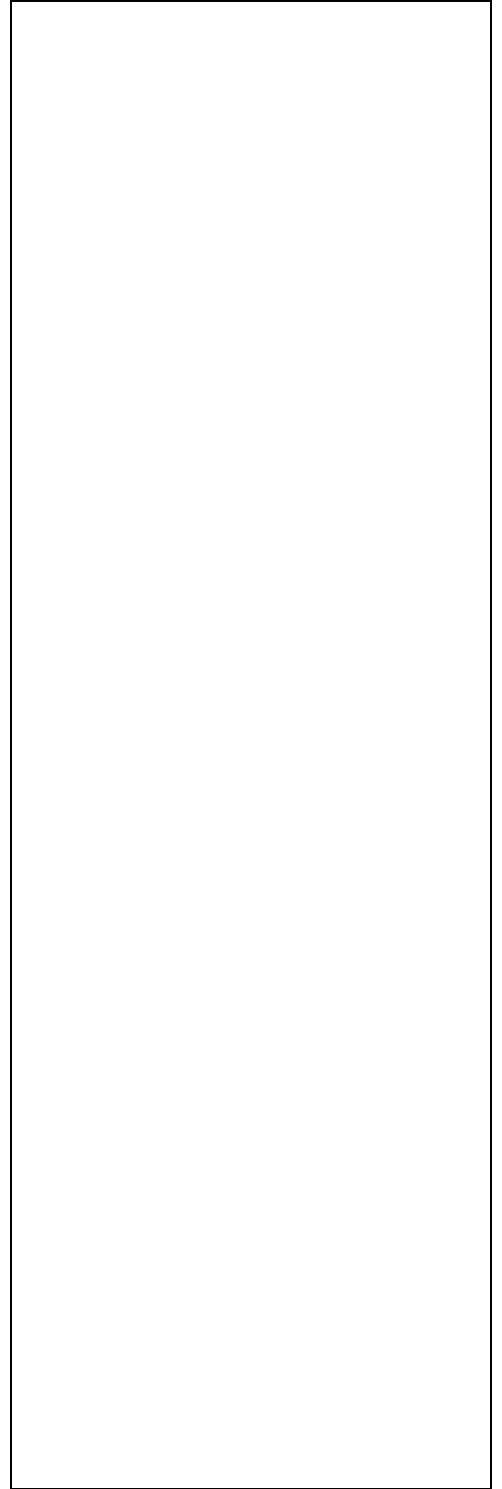
Two antennae to feel and lots more too,
Doing the insect bugaloo!

Three parts to their bodies, yes it's true,
Head, thorax and abdomen just like you!
But they are different, they don't have bones.
They use their antennae like telephones.

Exoskeleton and wings too,
Doing the insect bugaloo!

Two thirds of all animals everywhere
Are insects; you'll see them here and there.
All insects lay eggs and when they hatch
They're larvae or nymphs that you can catch.

Ants, bees, butterflies too,
Doing the insect bugaloo!



Insects are Everywhere, It's True

(Sung to the tune of "She'll be Coming Around the Mountain")

by John Gorman

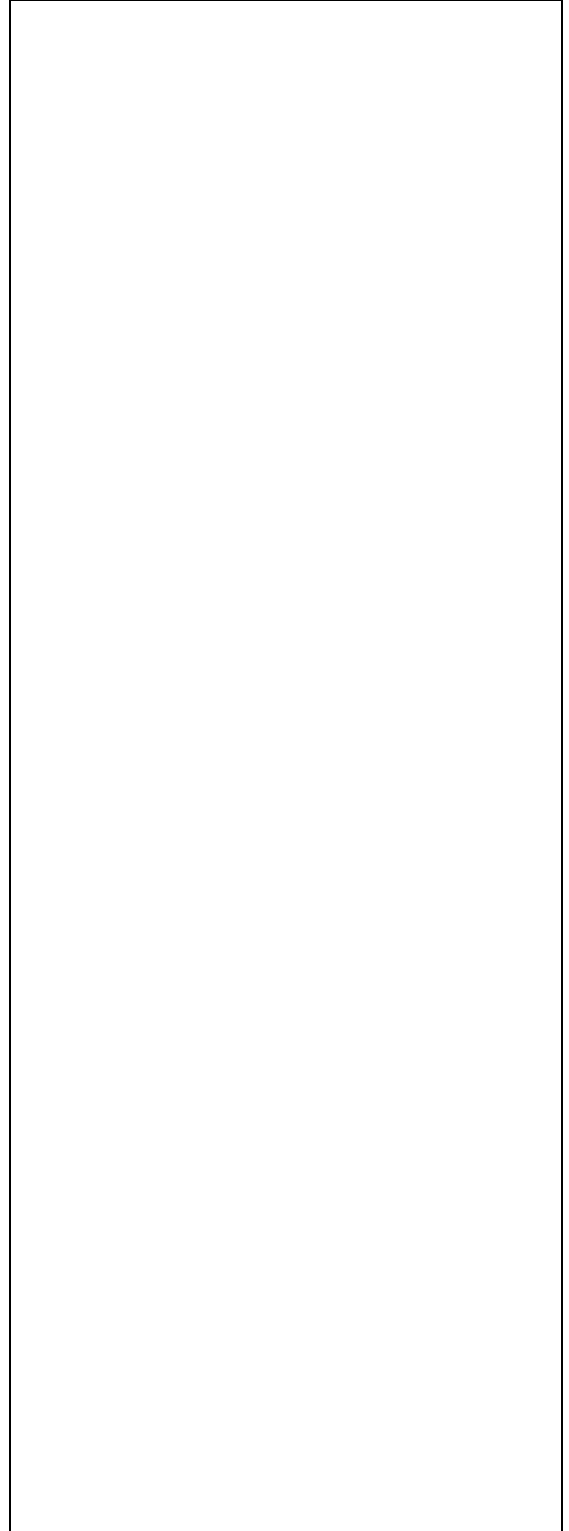
Insects are everywhere, it's true.
Insects are everywhere, it's true.
Insects are everywhere,
On the land and in the air.
Insects are everywhere, it's true.

Insects have six legs-yes, it's true.
Insects have six legs-yes, it's true.
Six legs to jump and crawl
Up and down the hall.
Insects have six legs-yes, it's true.

Insects have a head just like you.
Insects have a head just like you.
Their two antennae feel
The way to their next meal.
Insects have a head just like you.

Yes, insects have a thorax, too.
Yes, insects have a thorax, too.
It's the part below their head,
Call it their chest instead.
Yes, insects have a thorax, too.

Insects have an abdomen, too.
Insects have an abdomen, too.
It's the last of three parts,
And now you're very smart.
Insects have an abdomen, too.

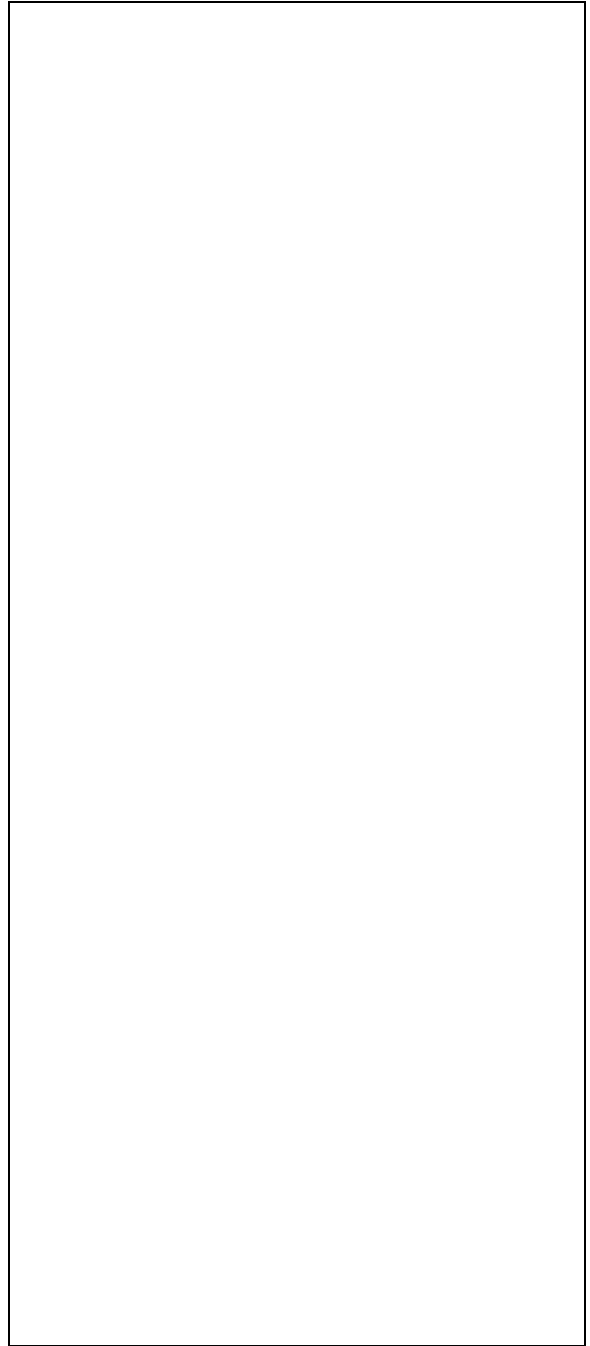


Insects have wings- yes, it's true.
Insects have wings-yes, it's true.
They have two or four wings.
They're very useful things.
Insects have wings-yes, it's true.

Insects lay eggs like birds and snakes.
Insects lay eggs like birds and snakes.
When they hatch, they're larvae
Or nymphs that go away.
Insects lay eggs like birds and snakes.

No, insects don't have any bones.
No, insects don't have any bones.
An exoskeleton
Unlike our skeleton
No, insects don't have any bones.

Insects are everywhere, it's true.
Insects are everywhere, it's true.
Two-thirds of all creatures
Are insects with these features.
Insects are everywhere, it's true.



INSECTS HERE, INSECTS THERE

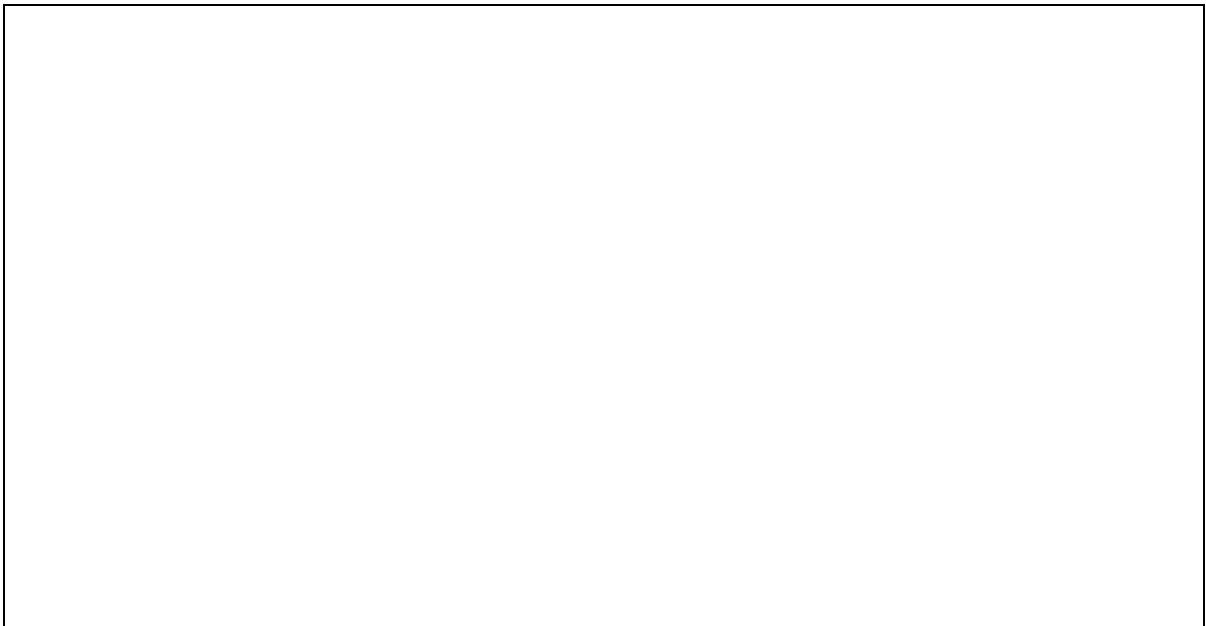
By Lara Smith

Insects here, insects there,
Insects, insects everywhere!

Insects in the air,
Insects underground,
Insects on the plants,
Insects all around.

Spotted ladybugs flying,
Quick grasshoppers jumping,
Hungry flies eating,
And busy bees collecting.

Insects here, insects there,
Insects, insects everywhere.
Insects! Insects! Insects!



INSECTS? YES, MA'AM!

By John Gorman

Is this an insect?	Yes, ma'am.
Is this an insect?	Yes, ma'am.
Well, how do you know?	It's got six legs to jump or crawl.
And is that all?	It's got three body parts.
Can you name them from the start?	Head, thorax and abdomen.
Can you tell me once again?	Head, thorax and abdomen.
Is this an insect?	Yes, ma'am.
Is this an insect?	Yes, ma'am.
Does it have any bones?	No , not a one.
Well how does it stay together?	Its exoskeleton.
And how does it fly?	It has wings, but no feathers.
And how does it fly?	It has wings, but no feathers.
Is this an insect?	Yes, ma'am.
Is this an insect?	Yes, ma'am.
Well, how is it born?	The female lays eggs in a spot.
Neither too cold nor too hot?	Where it's not too cold or hot.
How does it feel and communicate?	With two antennae that work really great.
How does it feel and communicate?	With two antennae that work really great.



Metamorphosis

By John Gorman

I'm an entomologist and I'm here to say,
"Life cycles are important in several ways.

From birth to death butterflies grow,
They hatch from eggs and don't you know,

In their larval stage they eat and eat,
And crawl up trees and wiggle across the street.

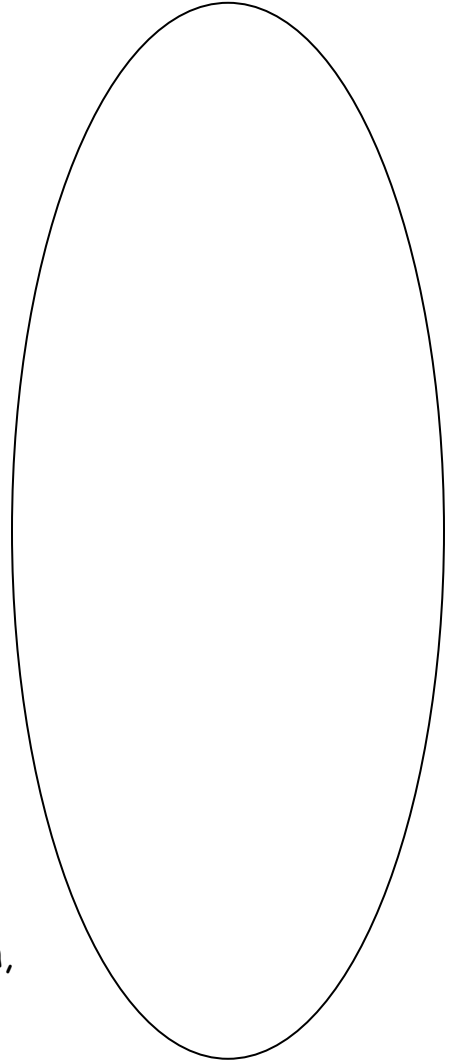
Then the caterpillar makes a chrysalis snug
And sleeps as snug as a bug in a rug.

In their pupal stage they're quiet and tame,
But when they break out it just isn't the same.

Beautiful wings that flutter in the breeze,
Flying between the branches of the trees.

The larva became a pupa, the pupa now full grown,
A butterfly resting on a flower or a stone.

A life cycle of three stages, and now what everybody knows is
When an insect changes, it metamorphoses."



¿INSECTOS?

escrito por Laura Curry

¡SÍ, SEÑORA

¿Son insectos?

¡Sí, señora!

¿Son insectos?

¡Sí, señora!

¿Cómo lo sabes?

Tienen seis patas.

¿Y qué más tienen?

Cuerpos de tres partes.

¿Los puedes nombrar?

¡Sí, señora!

¿Cómo se llaman?

Cabeza, tórax y abdomen.

¿Qué tienen afuera?

Dermatoesqueleto.

¿Y cómo reproducen?

Pues, no es un secreto.

¿Me lo puedes explicar?

El adulto pone huevos.

¿Qué sale de los huevos?

Se llaman larvas.

¿Y qué hacen las larvas?

Comen y comen.

¿Y hacen crisálidas?

Sí, adentro se transforman.

¿Son insectos?

¡No, señora!

¿Son insectos?

¡No, señora!

¿Cómo lo sabes?

Tienen ocho patas.

Pues ¿cómo se llaman?

Estas son arañas.

¿También ponen huevos?

¡Sí, señora!

¿Y cómo son sus cuerpos?

Tienen dos partes.

¿Las arañas son insectos?

¡No, señora!

Entonces, dime ahora...

¡Son arácnidos, señora!



LAS PARTES DEL INSECTO

(cantado a la melodía de "Head, Shoulders, Knees and Toes")

por Barbara Pérez y Laura Curry

Cabeza, tórax, y abdomen, y abdomen,
Cabeza, tórax, y abdomen, y abdomen,
Ojos, antenas, boca y seis patas,
Cabeza, tórax, y abdomen, y abdomen.

Abdomen, tórax y cabeza, y cabeza,
Abdomen, tórax y cabeza, y cabeza,
Dos alitas y dermoesqueleto,
Abdomen, tórax y cabeza, y cabeza.



YO SÉ DELETREAR

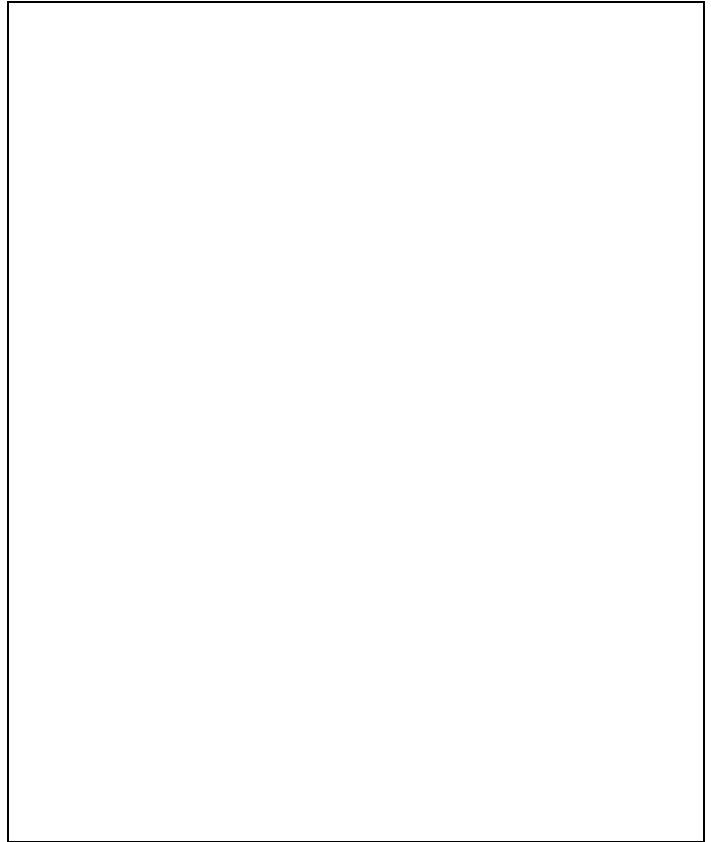
escrito por Laura Curry

Yo sé **ala**, **a-l-a**.
Yo sé **pata**, **p-a-t-a**.
Yo sé **boca**, **b-o-c-a**.
Pero yo no sé **entomólogo**.

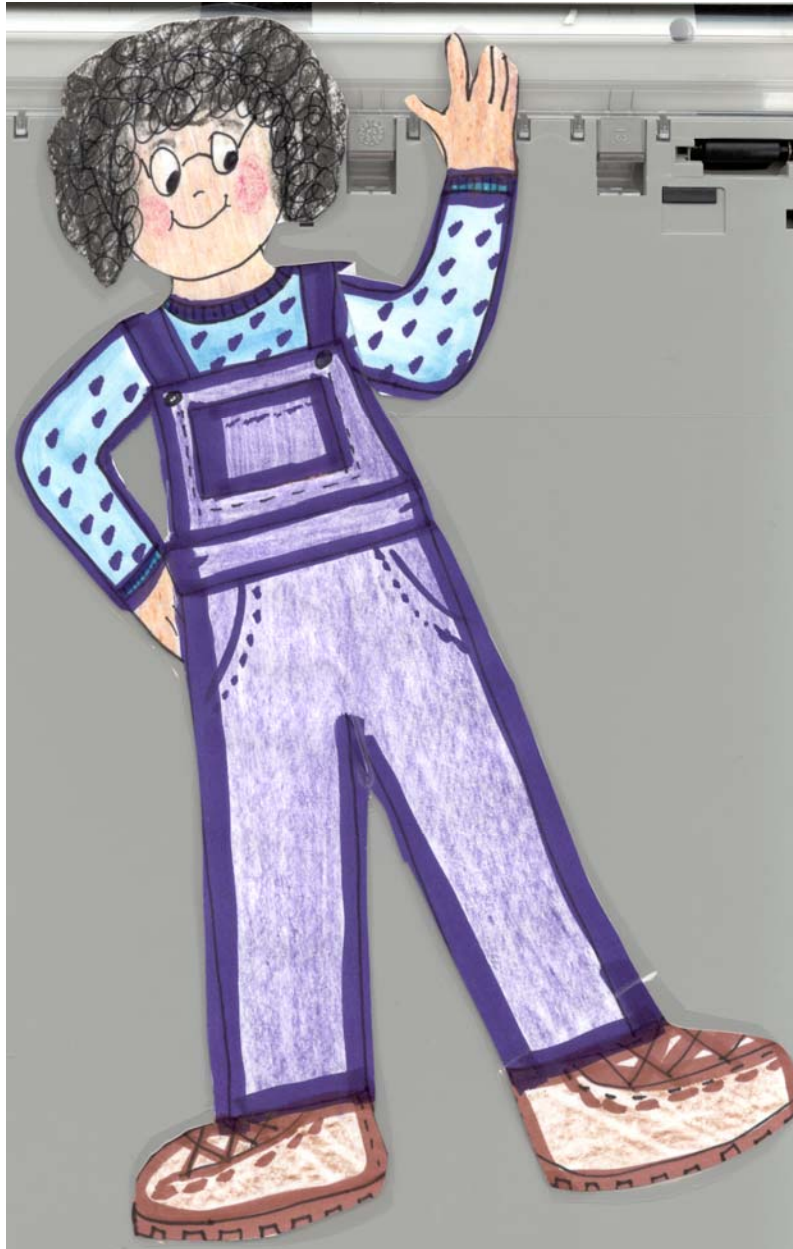
Yo sé **huevo**, **h-u-e-v-o**.
Yo sé **oruga**, **o-r-u-g-a**.
Yo sé **ciclo**, **c-i-c-l-o**.
Pero yo no sé **entomólogo**.

Yo sé **comer**, **c-o-m-e-r**.
Yo sé **picar**, **p-i-c-a-r**.
Yo sé **volar**, **v-o-l-a-r**.
Pero yo no sé **entomólogo**.

¡Sí lo sé! ¡Sí lo sé!
ENTO-MÓ-LOGO, ¡ENTOMÓLOGO!



Narrative Input Chart: pieces



Cycle

1. Eggs

After mating, a Ladybird lays her eggs on a leaf.



eggs



larva hatching



2. Larva

A larva hatches out of each egg. The larva eats a lot and grows fast.



larva

4. Adult

The pupa's skin splits and the adult Ladybird crawls out. The adult finds a mate.



pupa

3. Pupa

The larva changes into a pupa after two to five weeks. An adult Ladybird forms inside the pupa's skin.







