

Insects and Spiders: Not-So-Creepy Crawlers

The experiences planned during this month should focus on insects and spiders. Many people think that spiders are insects, but they are very different animals. This theme will look at both insects and spiders in an effort to help the children understand how they are alike and how they are different. Science for young children begins with interest in the natural world. How things move, what they eat, and why they do things. This is called the nature of science, a natural way of knowing. Children are curious about animals and plants and adults often curtail this interest through the creation of unfounded fears about lizards, snakes, insects, and spiders. Teachers of young children must help them develop knowledge and understandings about the natural world that are based on scientific information and not unfounded fears.

Insects are animals that possess segmented bodies supported by an **exoskeleton**, a hard outer covering made mostly of **chitin**. The body is divided into 3 parts, a head, a **thorax**, and an **abdomen**. The head supports a pair of sensory **antennae**, a pair of **compound eyes**, and mouthparts. The thorax has **six legs** and **wings** on some species.

Insects are the largest population of animals in the world with over a million different species. Many people think insects are pests, but many of them are very helpful and actually make our world a better place to live.

Spiders are not insects. Spiders are **araneae**, an order of **arachnid**. There are many thousands of different kinds of spiders. **All spiders have eight legs.** Most spiders have eight eyes but some have fewer than eight. They don't have ears, they feel the sound vibrations with tiny hairs on their legs. Their bodies have two

parts, the **cephalothorax** and the abdomen. The abdomen is plump. Spider blood is light blue. Blood fills up all the empty space in the spider's body, it helps to keep the legs stiff so the spider can walk. As spiders grow, they **molt**. That means they shed their old skin and grow a new one. They molt many times before they become adults. Many spiders live for only one year but some, like tarantulas can live much longer. Spiders come in different sizes. Some are fuzzy and others are smooth, and they come in many different colors. Spiders live in many different kinds of places: Water, gardens, houses, and the ground. They live where it is hot and where it is cold. They live where it is wet and where it is dry. Some are poisonous and others are not. They all eat insects and some other animals. **All spiders make silk although not all are web makers.** (This information was copied from www.pocanticohills.org/spiders/spiders2.htm. Look up spiders on the Internet for more information)

Color of the month Shades of green

Shape of the month Rectangle-shape with four sides, two sides are equal and shorter than the other two sides that are equal and longer.

Letters of the month Ss and Rr

Vocabulary words should be body parts of spiders and insects, words that describe insects and spiders, where they live and what they eat, and words that begin with the letters Ss and Rr. Lists of words that fit conversations, books, and experiences should be written on charts to help children develop print awareness. **Do not expect the children to read these words or write them. It should just be fun. Remember you are helping children develop print awareness.**

The Big Bug Book by Margery Facklam

Simon & Schuster Children's Guide to Insects and Spiders
by Jinny Johnson

Miss Spider ABC Book and any other Miss Spider Books by David Kirk

The Very Hungry Caterpillar by Eric Carle

The Very Busy Spider by Eric Carle

The Grouchy Ladybug by Eric Carle

The Very Lazy Ladybug by Isabel Finn

Quick As A Cricket by Audrey Wood

The Very Lonely Firefly by Eric Carle

The Very Quiet Cricket by Eric Carle

Monarch Butterfly by Gail Gibbons

Bugs Are Insects by Anne F. Rockwell

Ant Cities by Arthur Dorros

The Best Bug Parade by Stuart Murphy

My Very First Book of Shapes by Eric Carle

The Very Clumsy Click Beetle by Eric Carle

Spiders Spin Webs by Yvonne Winer and Karen Lloyd-Jones

Like Jake and Me by Mavis Jukes

The Little Buggers (Insect & Spider Poems) by J. Patrick Lewis

Anansi The Spider by Gerold McDermott

The Itsy Bitsy Spider by Iza Trapani

Spiders by Gail Gibbons

Spiders Everywhere by Gail Herman

Spider's First Day At School by Robert Kraus

How Spider Stopped by Robert Kraus

Be Nice to Spiders by Margaret Bloy Graham

The Icky Bug Alphabet Book by Jerry Pallotta

In the Tall, Tall Grass by Denise Fleming

The Lady and the Spider by Faith McNulty

Crickwing by Janell Cannon

Ten Flashing Fireflies by Philemon Sturges

The Honey Bee and the Robber by Eric Carle

Army Ant Parade by April Pulley Sayre

Roly-Poly Spider by Jill Sardegna

WEEK #1

Monday and Wednesday

Opening Time

In this early morning time children are entering the classroom and the activities available should be self-directing and not require specific teacher attention.

Three play spaces per child should be prepared. (Read the Environments chapter in *Beyond Centers and Circle Time* for more information about counting play spaces.

2-4 –spaces Writing table with a variety of paper, pens, markers, and pencils. **Cards with the children’s first and last names written with upper and lower case letters should be made by the teachers and placed where the children can access them.**

4-6 spaces Puzzles that depict insects and/or spiders, alphabet letters, or numbers.

4-6 spaces Table with markers, crayons, and plain paper for drawing.



4-6 spaces Green and white play dough for mixing shades of green. Rolling pins, cookie cutters and plastic knives can enhance this play experience.

2-4 spaces Soft area with books about insects and spiders.

- 2-4 spaces Geo boards, pegboards, or other fine motor materials. Be sure there is at least two of each kind of material so that the experience supports parallel and associative social interactions. (Visit “Beyond Kitchens and Housekeeping” in the BCCT curriculum book for more information on the importance of social interaction.)
- 2-4 spaces Chalk with erasers at the chalkboard.
- 6-10 spaces Eric Carle story tape about one of his spider or insect books or other special video that fits the theme. (No cartoons or misc. T.V.) Libraries usually have an excellent selection of children's tapes, CD's, and DVD's.
- 6-8 spaces Color or shape bingo at a table (teacher must lead).
- 2 spaces Small block or lego pieces on a rug or table (at least 35 pieces).

34-54 spaces with 10 different experiences

If 10 children are in the group the teacher needs to plan for these experiences with fewer spaces (i.e., Puzzles 2 spaces instead of 4-6)

Sharing Circle

After the children have helped clean up the classroom environment, the teacher/s should ask them to gather for a sharing circle. This circle should start with a story that fits the theme topic, Eric Carle's, *The Grouchy Ladybug*, is a good choice. This book provides a great opportunity to talk about time and the hands on the clock. Young children will learn the hour first. This book also provides opportunities to discuss feelings and ordinal numbers (first, second, etc.)

The teacher can ask questions such as:

- Why do you think the ladybug was grouchy?
- What does grouchy mean?
- Are you ever grouchy?
- Who did the grouchy ladybug meet first, second, third, etc.?
(ordinals)

Ladybugs are insects. There are over 5,000 different kinds of ladybugs in the world. Ladybugs make a chemical in their body that smells and tastes terrible. Birds and other animals won't eat them. Ladybugs are a great help to gardeners who grow roses and other plants that aphids like to eat. Ladybugs love to eat aphids and can eat up to 60 a day. Aphids are a small insect that eats the leaves and flowers of roses and other plants. Gardeners can buy bags of ladybugs on the Internet and let them go in their gardens. Ladybugs do not eat the leaves on the plants. Ladybugs have special organs on their feet to help them smell. The ladybug uses its antennae to touch, smell and taste.

This song is shared by Shannon Banderman who made it up for her special education class. The teacher and children can add to it as more is learned about insects and spiders. It is sung to the tune of "If You're Happy and You Know It."

Oh, I wish I were a little ladybug.

Oh, I wish I were a little ladybug.

I'd be red and black. I'd eat aphids for my snack.

Oh, I wish I were a little ladybug.

If two teachers are present, one should lead the circle and one should be preparing for the next activity while attending to the circle. The children should

be encouraged to share experiences they have had with insects and spiders. Most of these experiences will be negative such as:

- Mosquitoes bite me at night and make me itch.
- A wasp stung me on the arm when I was in the yard.
- I saw a spider under my bed and it scared me.

Listen to their comments and make notes so that during the theme experiences you can help them to understand more about insects and spiders.

The goal of this theme is for the children to develop knowledge about how insects and spiders live and how they both help and harm us. By the end of the theme the children should be able to express more about insects and spiders, than just offering reactions to negative things that have happened.

Picture cards of insects and spiders can be purchased or the teacher/s can make picture cards from magazines. These can be used to prompt children's comments.

Before leaving the circle count the children who are present and note which children are absent. A calendar should be available. The month, the season, the day of the week, the date, the weather and how it will affect the day's activities should be discussed.

The family letter should be sent home on Monday. As children bring pictures and books about insects and spiders they should be shared in this early morning circle. When children bring objects beginning with the letters Ss and Rr they should be placed on the sound table with a card naming the object written clearly. The name of the objects should also be added to the sound chart. A separate chart should be made for words beginning with the letters Rr and Ss.

The goal of the sharing circle should be to help children develop listening skills and the ability to follow and participate in a conversation using complete sentences.

If breakfast is served to the children, it is suggested that it be served as a group activity using the time for conversation and planning of the day. All foods should be introduced. Their texture, color, and nutritional value should be discussed. Being able to follow and participate in a conversation is a vital school readiness skill. Meals are excellent times to foster this development. Watch “Food, Fun, and Family Style Meals” offered in this theme series.

Outside Play Time

Before the children are allowed to move onto the playground area all activities should be introduced and expected behavior explained (Scaffolding the pre-play experience). This will help create positive play experiences and minimize misbehavior and injuries.

4-6 spaces Pots, pans, spoons and other cooking utensils. Several bus boy pans with sand and a pitcher with water to make mud. This can be arranged on crates or on an outside table. Enrich this play experience by adding dress-up clothing and shoes.

4-6 spaces Easel painting spaces with at least 8 to 12 colors of tempera paint and manila paper 18 x 24 inches. Several different sizes of brushes should be in each color. The paper can be attached to a fence. This experience should be offered everyday both inside the classroom and on the playground. Children must be encouraged to paint often so that they can

develop their symbolic skills and fine motor coordination.
(Read the chapter in BCCT called Beyond A Shelf of Toys and view Ms. Cathie on the DVD introducing an easel area to a group of children)

2-4 spaces

Shovels, spoons, and pails in a sandbox for empty/fill play. Bury plastic insects before the children come out. Put a table near the sandbox with at least four magnifying glasses. As they find an insect they can move to the table and examine it with a magnifying glass. A non-fiction book with pictures of insects can help the children with identification of the insects they find.



2-4 spaces

Balls for catching and throwing. (set up a special area)

2-4 spaces

Crayons and paper for drawing.

2-4 spaces

Blanket, sheet, or quilt spread under a tree or in a quiet area. Put books about spiders and insects in a basket.

8-10 spaces

Parachute Game (One teacher should invite 8-10 of the children to join her in this game. If there is only one teacher in the classroom, she can play this game with the total group at the beginning or the end of the outside play period.) Books on parachute games for young children such as *Parachute Play* by Liz & Dick Wilmes can be purchased through early childhood vendors.

On Wednesday this same lesson plan should be followed changing the groups so that all of the children experience the play opportunities.

The teachers should be constantly observing the children. Easel paintings and all drawings should be reviewed and developmental stages recorded. Behavior and participation in circles and play experiences should be noted.

Center Time

On Monday and Wednesday the center time should focus on fluid play, dramatic play, and a teacher directed art experience. This organization provides teachers time to create rich play experiences that allow children the necessary opportunities to develop knowledge and their play skills. Center time should allow the children at least an hour to play after the pre-play scaffolding experience.

The teachers must provide for the four scaffolding components:

Scaffolding the Play Environment

- Pre-organize the play environment with enough materials (3 play spaces per child)
- Plan for intensity and density of experiences
- Have a variety of materials that support the three kinds of play— sensorimotor, construction, and dramatic
- Have a variety of materials that support literacy experiences
- Arrange play opportunities to support positive social interactions

Scaffolding the Pre-Play Experience

- Read a book about related experiences or conduct a visitor's demonstration
- Incorporate new vocabulary and demonstrate the concepts that support the Performance Standards
- Give ideas for how to use materials
- Discuss the rules and expectations for the play experience
- Explain the sequence of the play period
- Organize the children for successful social interactions
- Design and implement an orderly transition to play

Scaffolding the Individual Child's Play Experience

- Give children time to organize and elaborate their play experience
- Model appropriate communication
- Enhance & extend their language
- Increase socialization opportunities through support of peer interactions
- Observe and document children's play development and progress

Scaffolding the Post-Play Experience

- Recall and review the play experience, allowing children to share their accomplishments

- Use clean-up as a positive learning experience through the classification, seriation, and general organization of the play environment

Scaffold the pre-play experience by re-reading *The Grouchy Ladybug* by Eric Carle. Show the children the title on the front of the book and on the title page. Discuss the author and illustrator.

Ask the children to listen for the answers to these questions.

- Why was the ladybug grouchy?
- Who remembers who the grouchy ladybug met first, second, etc.?

You will re-read this book during the pre-play circle on Wednesday. Children love repetition and this re-reading helps them become familiar with the story line and characters. By the end of the week, the children should be able to fill in some of the words on each page and anticipate the upcoming events as each page is turned (This is called dialogic reading). When the book is placed with books for free choice they will be able to pretend read.

Explain the play opportunities that will be available. Discuss the behaviors that will be expected. Do not threaten. Be positive. (i.e., We need to try and keep the brushes in the right colors of paint.) Be sure and separate potential problem groups of children by your placement of them in the play experiences.

Encourage children who have not played in the dramatic play area to choose that activity during the playtime. Observe all attempts at writing/drawing and either take pictures of the products or keep a sample to place in each child's work portfolio. Once you have observed the children and feel you have an accurate assessment of their development, score their work in the assessment

book. It is important the each child's progress is recorded regularly so his pattern of development is documented.

Plan an orderly transition from the circle. Choose the group that will join in the art experience. Divide the other children with questions that encourage them to listen and follow directions. (i.e., If you have on shoes that tie, and you have an M at the beginning of your name, choose a place to play. If you have barrettes in your hair, and are wearing green choose a place to play.) You should use at least two variables.

Teacher Directed Art Experience

If there are two teachers and 18-20 children, one teacher can work with 8-10 of the children in a teacher directed art experience. If there is only one teacher with a smaller group, she can do the art experience with all of the children at one time and then let them choose from the fluid and dramatic play experiences. Remember the color of the month is shades of green and the shape is the rectangle.

Revisit *The Grouchy Lady Bug* book and the scientific information about ladybugs. Show the children pictures of ladybugs. And offer them this new piece of trivia about ladybugs. Ladybugs do not chew up and down like we do, they chew side to side. Let the children move their mouths side to side to see how chewing that way would feel.



Give each child a small paper plate and red crayons/markers so that they can color their plate. (Pay attention to how much **time** the children spend coloring their plates and **how**

much of the plate they have colored red, give them a piece of black paper to draw the circles they are going to put on their ladybug's back. Give them scissors to cut them out. (Different kinds of ladybugs have different numbers of spots.) When the circles are cut out let the children glue them on the back of their ladybug's body with glue sticks. Give the children a half circle template so that they can cut the thorax for their ladybug and a smaller circle for the head. These can be stapled in place or the teacher can use a hot glue gun. Attach these body parts where the children want them. (The teacher should cut black pipe cleaners in half) Let the children count out six pipe cleaner legs and show the teacher where they want her to attach them to the thorax (the piece between the plate and the head). The teacher should glue the legs wherever the children tell her. This will let the teacher know how much the children have comprehended from the discussions about the bodies of insects. Give each child two wiggly eggs to glue on the head of the ladybug. The children can attach them with Elmer's glue or the teacher can attach them with a hot glue gun following each child's direction. Give each child two more black pipe cleaners cut in half. The teacher should show the children how to curl them on one end and attach them on the head. The hot glue gun will hold the antenna in place. the teacher should use the hot glue gun to put the antenna where the children direct.

Fluid Play, Dramatic Play, and Block Building Experiences

6-8 spaces

General playhouse area with stove, sink w/ water and sponge for washing dishes, a table w/ four chairs, 4 multi-cultural dolls, dress-up clothing for boys and girls, dishes, and pots. Other furniture such as a couch and chairs, doll bed, etc. will make this area more than just kitchen play. An area with insect and spider books as well as magnifying glasses should be set up so that the children can study real insects

that are found and the plastic ones for play. People who study insects are called entomologists. Recycled vegetable trays should be used to create space to observe the dead insects and spiders. If live insects and spiders are brought to share, be sure they are released so that they do not die in a bottle.

- 2 spaces Baby bathing set up on a table with two bus-boy pans, two dolls, cloths, towels, empty baby powder containers, and diapers.
- 4 spaces Easel painting spaces with at least 8 to 12 colors of tempera paint and manila paper 18 x 24 inches. A brush should be in each color. Several sizes of brushes, 1 inch, ½ inch, and pointed small brushes will allow mature children to create more detail in their painting.
- 4 spaces Soft reading area with insect and spider books
- 4-6 spaces Table with crayons and paper for drawing **(Do not direct their drawings or the amount of crayons they can use.)**
- 2 spaces Building with blocks. Pictures of structures that use rectangles in their construction will provide the children ideas for their building activity. If small wooden or plastic people are provided the children can engage in micro-dramatic play using their structure.
- 4 spaces Green shades of play dough made by the teacher before the theme started should be put out on the first day. Later, dough made with the children can be



added. Rolling pins and alphabet cookie cutters should be on the table. **Watch how they use the play dough and allow them to roll, pound, etc. Play dough helps children develop strength in their hands and fingers.**

2 spaces

Doll house with furniture and people

2 spaces

Two-bus boy tubs or bins with approximately three inches of water colored green with food coloring. Place on a table on top of a towel. Different sized cups, funnels, etc. should be available for empty/fill play. Recycled items are great for this use. Each tub or bin should have the same cups etc. so that positive social interactions are supported.

This provides 34 play spaces in 9 different experiences

Literacy Circle Time

This circle time should provide the children with a small group experience. If there are two teachers the children should be divided into two groups. These should be the same groups for meals and other activities. Teachers should work together to ensure that each child is placed in the group that will allow him the most positive participation. Children who prefer to play together do not always play well together. (i.e., Charlie and Anthony like to play together, but when they are together they focus on one another, not the experience and usually engage in rough and tumble play even at circle time.) Teacher attention to children's placement in the small groups can enhance each child's participation and development.

During the first week of the theme, this circle should focus on the letter Ss. Call attention to any child whose name begins with Ss or who has an s in their name.

Write this child's name on a chart so that the other children can see the placement of the S and listen for its sound when the name is pronounced. (This is phonemic awareness.)

The teacher should have a set of pictures and objects that begin with the letter Ss. Show the pictures and the objects to the children. Write the names of the objects and the pictured objects on a chart. Read them again to the children. Ask them to clap the syllables in each word. For example:

Stocking stock ing 2 claps

Spider spi der 2 claps

Ship ship 1 clap

Square square 1 clap

Look around the room and list anything that the children find that begins with the letter S. (i.e., shelf, slippers, stove, sock)

Read Eric Carle's book, *The Very Busy Spider*. Point out to the children that the word spider begins with the letter S.