

Ladybug Presentation Outline

- I. Introduction to lady bugs: a little tiny bug with a great BIG job helping to keep our environment (gardens) healthy and green.
 - Photographs of lady bugs – are the students wearing ladybug colors?
 - engage the kids – have they seen a ladybug? Where? What color?

- II. Ladybug habitat (use red cards)
 - Definition of the word habitat
 - Ask student “what’s your habitat?”
 - Talk about ladybug habitat

- III. Story: What About Ladybugs? Read this story out loud – drawing out use of pesticides, how can we make the garden better for the ladybugs and the bees? Encourage children to befriend the ladybugs and help them understand the importance of ladybugs in a garden, the very important job they do.

- IV. Lifecycle of a ladybug – (Use photographs with students holding the photos)
 - You look like your parents, what does a ladybug look like?
 - Start with dogs, cats, and end with humans (photographs)
 - Use life-cycle photographs (have students hold the photographs)

- IV. Predator/Prey Relationships (Use pictures)
 - How do you protect yourself riding a bicycle?
 - How does a ladybug protect itself?
 - color
 - smell
 - playing dead

- VI. General ladybug information
 - What do they eat? How much?
 - How long do they live?
 - What do the spots mean?
 - What about those orange ladybugs?

- VII. Practice observation skills
 - Examine a ladybug using magnifying glasses
 - Complete the worksheets, look at a ladybug, count spots
 - Draw a ladybug

What's so Special About Ladybugs?



Lovely Ladybugs

Did you ever see a little red and black beetle crawling along a plant leaf? Or perhaps you've seen little orange and black beetles crawling inside your house on a warm winter day. Did you know these tiny little bugs have a great big job to do in our gardens? Learn how their special color, and their special smell, all help to keep the ladybug doing its very special job – keeping our gardens healthy and green.

Age Level: Grades K-2

Program Length: 30 minutes

MN Academic Standards for Science

Kindergarten:

Strand 1V B: The student will raise questions about the natural world; the student will observe and describe common objects using simple tools

IV G: The students will understand that people have five senses that can be used to learn about the environment. The student will observe and describe the environment using the five senses.

First Grade:

IV B: The student will observe plant and animal life cycles. The student will observe and describe how plants and animals grow and change.

IV D: The student will understand that there is variation among individuals of one kind within a population. The student will match adult animals and plants to their offspring. The student will describe ways in which many plants and animals closely resemble but are not identical to their parents.

Second Grade: Strand I B: The student will raise questions about the natural world, make careful observations and seek answers. The student will use appropriate tools to gather data

IV B: The student will recognize that plants and animals have life cycles. The student will describe life cycles of plants and animals.

IV C: The student will understand that organisms live in different environments. The students will observe and describe some features of plants and animals that allow them to live in specific environments.

IV F: The student will investigate feeding relationships among organisms. The student will observe and describe predator and prey relationships.

Key Concepts:

- Understand the important role of the lady bug in the garden and what you can do to help the ladybug
- Explore the Ladybug habitat as compared to the student's habitat
- Lifecycle of a ladybug: You look like your parents, what does a ladybug look like, i.e. how the ladybug grows and changes and does not resemble its parent until it becomes an adult.
- Tools to use in exploring a garden (magnifying glass)
- Explore the predator/prey relationship & how a ladybug protects itself

Ladybug Presentation Highlights:

Introduction: Start by engaging the students to see what they know about ladybugs.

“Did you ever see a little red and black beetle crawling along a plant leaf? Maybe you saw an orange and black beetle crawling somewhere – perhaps inside your house on a warm winter day? These bugs have lots of different names – some call them lady beetles, some call them lady bird beetles. In Minnesota they are usually called ladybugs.

Show picture of different colored ladybugs. I’m wearing ladybug colors, are you? Ask students to hold up their hands if they’re in ladybug colors.

In MN ladybugs are red & orange. In different parts of the United States you might see ladybugs that are different colors than we see in Minnesota! Show photographs. Ask again, are you wearing ladybug colors? By then all students should be able to raise their hands.

Habitat: Where do you live (what’s your habitat); where does a lady bug live?

Hold up the red cards that relate to this.

Student replies may be: house, apartment, cabin, yard, school building

Cue them as needed: How many of you go to school? All will raise their hands. School is a habitat too!

Story: A story about how the ladybugs help their habitat and our environment

Ladybugs are very important bugs because they help us when we grow food because they can eat something that can harm lots of plants. People depend on ladybugs to help them grow food. Listen very carefully as I read you a story about ladybugs and see if you can figure out what’s so special about ladybugs.

Reading the book What About Ladybugs? addresses the interdependence of living things and the special quality a ladybug has. Paraphrase where necessary. End with how they can help a ladybug (and bees) by planting a garden and not using pesticides.

Life cycle of a ladybug: You look like your parents, but who does a lady bug look like?

- Show pictures of animal young that look like their parents: dogs, cats, people
- Show pictures of ladybug lifecycle. Have students participate by holding up the cards. With older grades the students can participate by determining the order.
- Info to know:
- It takes 4-6 weeks from egg to adult. Eggs hatch in 2-5 days, larva feed on aphids for up to 3 weeks, enter pupa stage and one week later they emerge.
- Asian lady beetle can live up to 2-3 years if the conditions are right. The average age is 6-9 months

If there’s time you can talk about the following:

Predator/Prey: There’s something else very special about ladybugs. One of the things is their color, which helps protect them. Engage the students by asking:

- How do you protect yourself if you’re riding your bike, or playing sports? Answers will be wearing a helmet, kneepads, gloves
- A ladybug also has things it can do to protect itself (color, smell, plays dead). What preys on a ladybug? (birds). Use small posters.
- Color: Red & orange color warns birds that they aren’t very tasty. Birds learn that red and black or yellow means that an insect usually stings – so birds learn to leave them alone. Like a stop sign on the road, the color red means STOP!

Master Gardener Youth Committee Maret Ryan 952-474-8160

- Would you think something that was really stinky would taste good? No, neither do other predators. Ladybugs have a stinky odor that comes out of their leg joints and that helps protect them. It would be like an odor coming from your knees or elbows – those are your joints.
- Ladybugs often play dead when they're in danger. Most predators won't eat an insect that doesn't move. Invite the children to go exploring in a garden with a magnifying glass.

General Information: Children can be asked questions to determine their range of knowledge.

How many kinds? 400-450 kinds in North America.

How much they eat: 50 aphids a day. Young ladybugs can eat 350-500 aphids a day. How many aphids would you eat by the time you were 5 years old? 638,750 at 350 a day, or 91,250 at 50/day.

Spots: 0-28 spots. Does not indicate how old they are, just the type of ladybug it is.

Scaling the Presentation

Kindergarten: General discussion of ladybugs, photographs of ladybugs, discussion on habitat, read story "What About Ladybugs," and life cycle generally takes one-half hour. This is the time limit that works with kindergarten-age students. All discussions are at a very high level.

Grade 1: Add: Discussion on predator/prey relationships. Life cycle: Have students place the photographs in the correct order. This presentation could go into more detail if the time limit is expanded to 40-45 minutes.

Grade 2: Add: examining ladybugs with magnifying glass, drawing pictures of ladybugs (Look at a ladybug, count spots), expand on predator/prey relationship, spend more time on ladybug facts. Examination of ladybugs can be done if this is an hour-long presentation.

Ladybug Inventory List:

Puppets

- Ladybug hand puppet
- Ladybug finger puppet

Books

- The Ladybug
- Are you a Ladybug?
- Ladybugs
- What About Ladybugs (read to students)

Materials

- Magnifying glass (1 large)
- Magnifying glass (approximately 60 small)
- Plastic life cycle figurines of ladybugs
- Black Tri-fold Poster Board for photographs
- Poster – Pink spotted ladybug lifecycle
- Ladybugs in plastic bags – 1/bag

Folder 1:

- Habitat cards (2)
- Predator/Prey Relationship cards (2)
- Book: What About Ladybugs?

Folder 2:

- Photographs: Young with Parents
- Photographs: Lifecycle of the ladybug from egg to adult

Folder 3:

- Photographs of many types of ladybugs (14) to be displayed on tri-fold

Folder 4:

- Handouts: Counting Spots, Look at a ladybug, life cycle, ladybug outline

Manila folder:

- Miscellaneous resource materials