



Rhode Island Tick Detective Workbook for Kids – Companion Guide

Goal: To increase student (Pre-K to Grade 6) knowledge about ticks and their lifecycle, preventing Lyme disease, and proper tick removal.

Objectives:

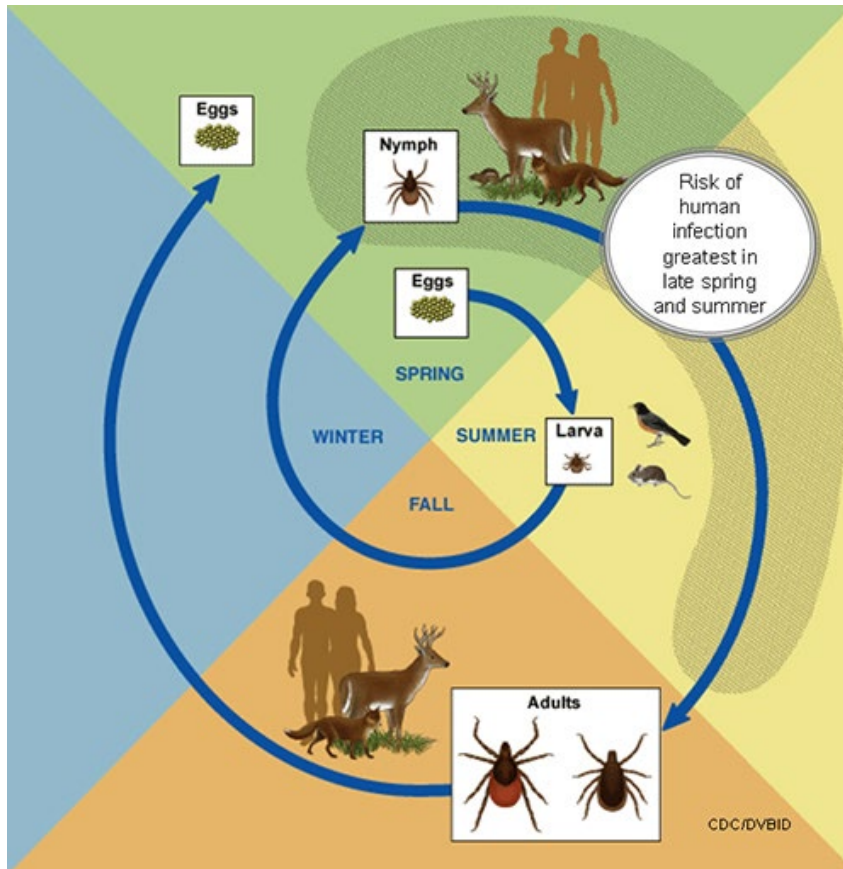
1. Describe the tick life cycle and symptoms of Lyme disease in people.
 2. Learn to identify different types of ticks and their life stages.
 3. Identify ways to repel ticks, check for ticks on the body, and properly remove ticks if found.
-

Objective 1:

1. Ticks are in the same family as spiders, scorpions, and mites. They all belong to a family called “arachnids.” All arachnids have two body segments, eight legs, and no wings or antennae. They are also not able to chew.
2. There are about 900 different species of ticks in the world, many of which live in Rhode Island.
3. Different ticks bite different animals and carry different diseases. The blacklegged tick carries Lyme disease. Lyme disease is caused by bacteria (germs) which can make people sick.

Tick Life Cycle:

- Page one describes the tick life cycle and shows the relative sizes of larva, nymph and adult stages. Ticks go through four life stages: egg, larva, nymph, and adult.
- During the larval stage, the tick takes a blood meal from an animal or person, molts (sheds its exoskeleton), and develops into the next stage. At the larval or nymph stage, the tick will likely feed on small mammals or birds. As the tick gets bigger it will search for larger hosts such as deer, raccoons, coyotes, or maybe even people and pets. If it feeds on an animal whose blood contains the disease-causing bacteria, the tick can carry that bacteria and infect the next animal or person it feeds on.
- A tick will feed once during each life stage which can last several months. After the adult female feeds, it will drop off its host and lay eggs. The entire life cycle can take up to three years.



Lyme Disease Symptoms:

- If a tick bites a person and is not removed, the tick can transmit bacteria (germs) to the person that could make the person sick.
- Early signs of Lyme disease include tiredness, fever, joint pain, headaches, stiff neck, and a rash.
- There is sometimes a circular (bull's-eye) rash at the site of the tick bite. Sometimes a rash does not show up, but you can still be infected.
- If Lyme disease is not treated, it can lead to other symptoms such as heart problems, or difficulty with speech, attention, sleep, and memory. It is important to catch an infection early.

Objective 2:

1. Look at the pictures on page 9. Ask the students: "What is different about each tick? How can we use patterns to identify each type of tick?"
2. Discuss how the ticks change as they grow through different life stages.
3. Ask the students to describe how ticks might look different from spiders. Use the pictures on page 19 to figure out which pictures are ticks and which are spiders.

Objective 3:

1. It is important to protect yourself from getting bitten by a tick. Mention bug spray and wearing long pants.
2. Tell students to avoid areas where ticks may live. Ticks like to hide in moist areas like stone walls and wood piles (where small mammals like mice like to live), and areas of tall grass (where they can climb up high and wait for a passing animal like deer). Have students imagine they are a tick that wants to find a host – where would you hang out? Why? (Note: Ticks do not jump and do not fall from trees. They wait for a passing animal or person to brush up against them.)
3. Tell students to stay on trails when they are hiking. Do not scare students away from spending time outdoors, tell them they can do it safely.
4. Look at page 21 and ask students to describe areas on their bodies where they should check for ticks.
5. Look at page 6 for ways to remove ticks. Discuss with students that it is important to tell an adult right away if they find a tick. They should not try to remove a tick by themselves.

Assessment:

Have the students use page 20 to draw a picture of a tick and write the top three things they learned about ticks. When they are done, ask the students questions like “How many legs did you draw?” or “What were some ways that we can protect ourselves from tick bites?”

Have the students share their drawings with the class either in small groups or with the full class and say why they drew the tick like they did. Have them share what they learned.

Send the workbook home with students and encourage them to share what they learned with their families. Also encourage students to take the survey with the help of a parent. A link to the survey is on the first page of the book. <https://www.surveymonkey.com/r/RICTickDetective>