

Rocky Mountain spotted fever (RMSF) Curriculum

1, 2, 3 LET'S STAY TICK FREE

Teacher's Name _____

Date _____

INTRODUCTION

This program is relevant to the Arizona Department of Education Science standards pertaining to life cycles, ecosystem, and biology of a vector for grades 3-5. This curriculum guide is also compatible with Health Education Standards for grades 3-5 pertaining to external influences on personal health, avoiding unhealthy risk behaviors, and appropriate use of health care.

3RD-5TH HEALTH EDUCATION STANDARDS

STRAND 2: Analysis of Factors Affecting Health Behaviors

- Concept 1: External Influences on Personal Health: The concept of understanding how family and peers can influence personal health
 - PO 1. Describe how the family influences personal health practices and behavior
 - PO 2. Identify the influence of culture on health practices and behaviors
 - PO 3. Describe how peers can influence healthy and unhealthy behaviors

STRAND 7: Ability to Practice Health – Enhancing Behaviors

- Concept 2: Healthy Practices and Behaviors: The concept of understanding behaviors that avoid or reduce health risks.
 - PO 1. Demonstrate a variety of healthy practices and behaviors to maintain or improve personal health
 - PO 2. Demonstrate a variety of behaviors that avoid or reduce health risks

STRAND 1: Comprehension of Health Promotion and Disease Prevention Concepts

- Concept 5: Use of Health Care: The concept of understanding the benefits of making healthy choices.
 - PO 1. Describe when it is important to seek health care

STUDENT LEARNING GOALS

The student will learn:

- What a tick is.
- The life cycle of a tick.
- How to prevent tick bites
- How to remove a tick if they find one attached to themselves or a pet
- Importance of dog health
- When to seek health care

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ACTIVITY/PROCESS

Objectives

What is a tick:

Brown Dog Tick

- Students will identify what a tick is
- Students will learn about the ticks natural habitat and dietary needs
- Students will learn that Brown Dog ticks carry germs that will make you sick

The life cycle of a tick

Life Cycle

- Students will learn the life cycle of a Brown Dog Tick

Prevention

- Students will learn how to protect themselves from tick bites and RMSF
 - Family Tick Checks
 - Use Insect Spray
- Students will learn about Rocky Mountain spotted fever and dogs
 - Learn how Rocky Mountain spotted fever harms dogs
 - Dog collar importance
 - The importance of staying away from free roaming dogs
- Students will talk about Rocky Mountain spotted fever and ticks with peers
- Students will learn 4 steps to remove tick from themselves or pets
- Students will learn when to see a doctor or tell parents if they do not feel well

RESOURCES

PowerPoint, Quiz, Lesson Directions

11 work sheets

- ☐ Connect the dots
- ☐ Draw the collar
- ☐ Tick Checks
- ☐ Crossword
- ☐ Word Scramble
- ☐ Criss-cross
- ☐ Insect Repellent
- ☐ Coloring Page
- ☐ How to remove a tick
- ☐ RMSF Signs
- ☐ Where do ticks hide?

(Teachers should bring tweezers to class for demonstration. The lesson directions are optional.)

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EVALUATION

Teacher & Student Evaluations

Please return to:

Arizona Department of Health Services

Division of Public Health Services

Bureau of Epidemiology & Disease Control Services

Office of Infectious Disease

ATTN: Hayley Yaglom

Fax: 602-364-3199

150 N. 18th Ave. Suite 140

Phoenix, Arizona 85013

QUESTIONS/CONCERNS

For additional comments or concerns, please contact:

Arizona Department of Health Services

Division of Public Health Services

Bureau of Epidemiology & Disease Control Services

Office of Infectious Disease

HAYLEY YAGLOM, RMSF EPIDEMIOLOGIST

Office: 602-542-2521

150 N. 18th Ave. Suite 140

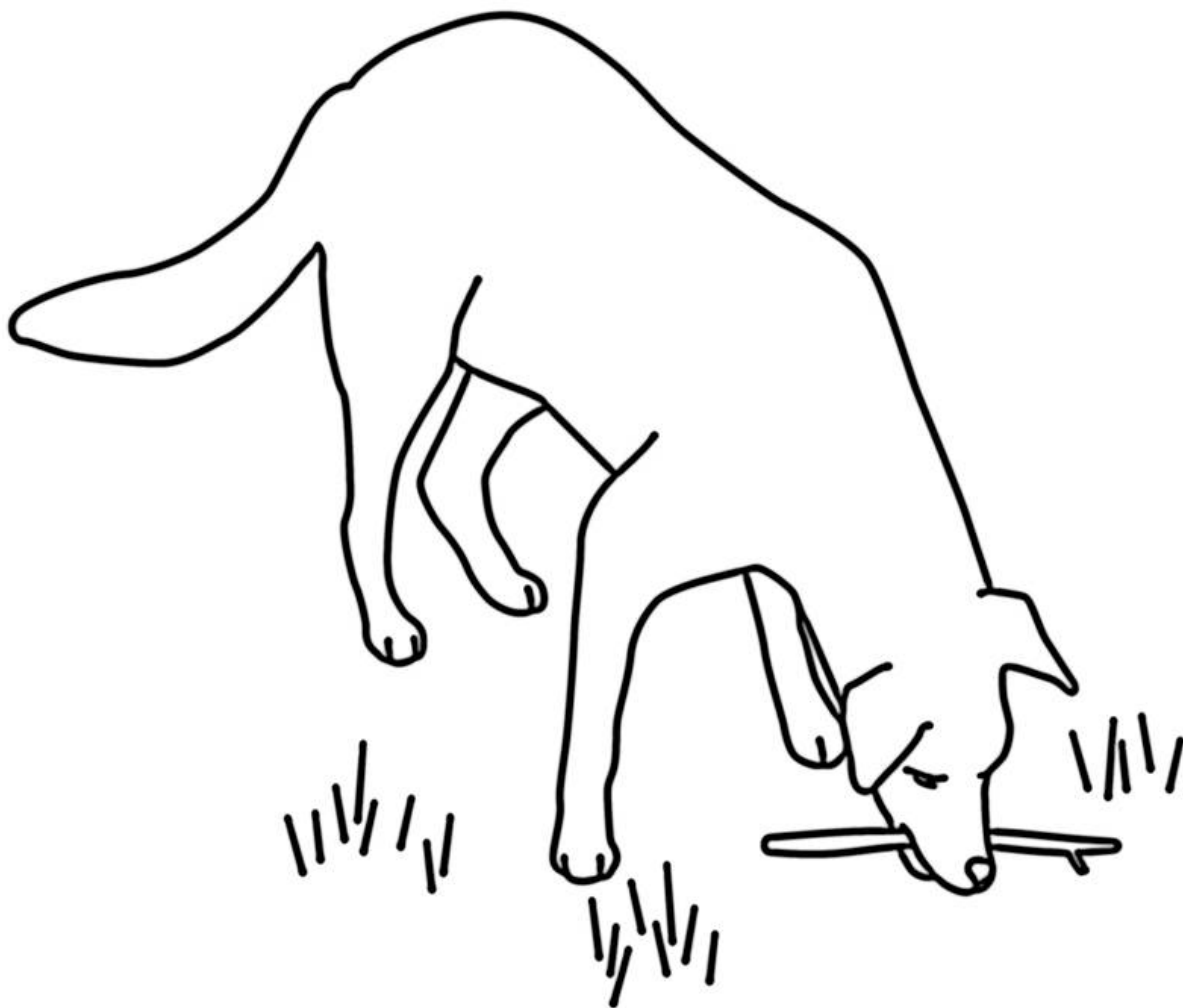
Phoenix, Arizona 85013



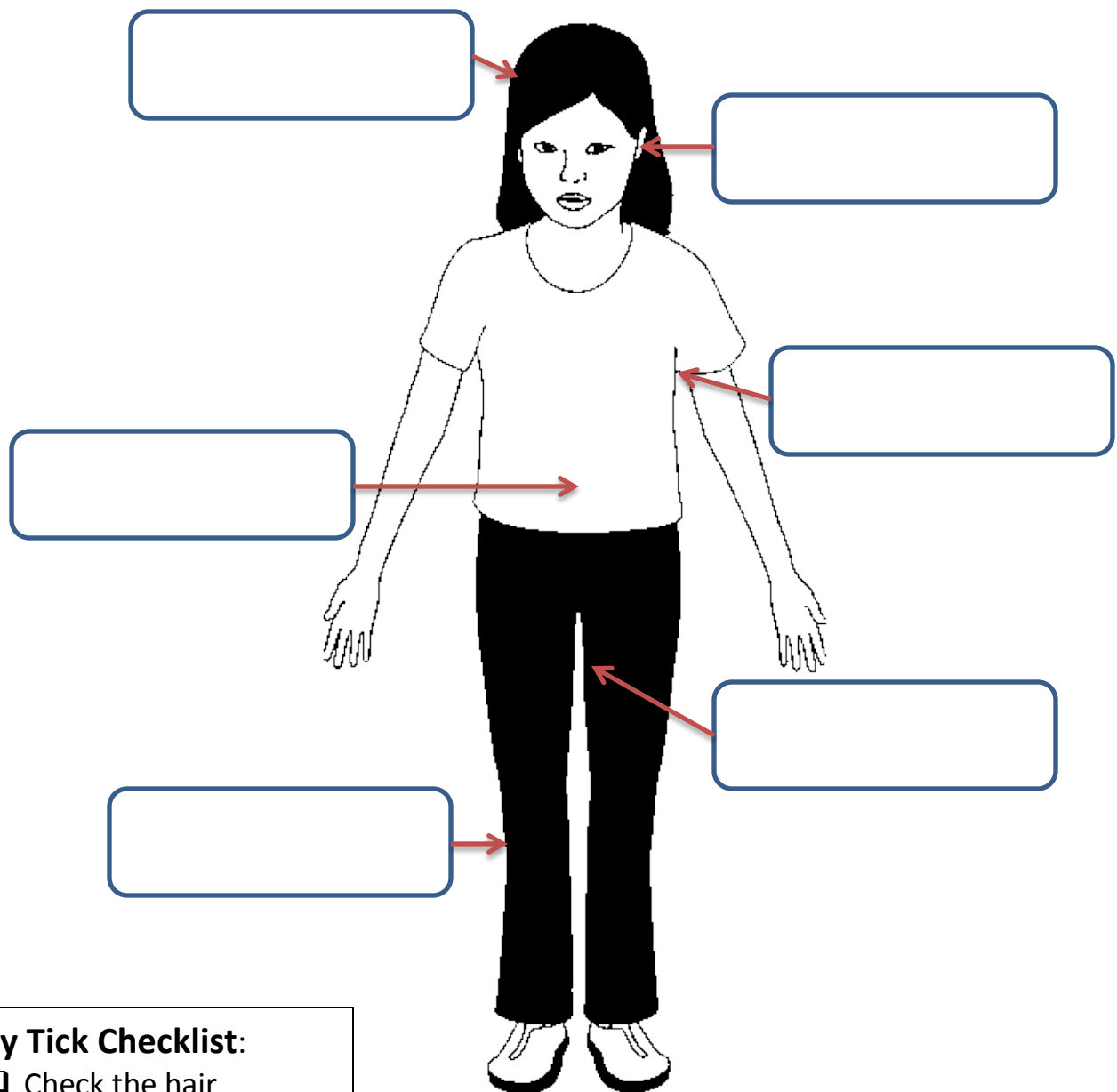
**Draw a tick by
connecting
dots.**



**Draw places
that a tick might
hide on dogs.
(Hint: There are
six)**



Draw a tick collar on the dog.



Daily Tick Checklist:

- ☐ Check the hair
- ☐ Back of the knees
- ☐ Inside the belly button
- ☐ In and on the ears
- ☐ Between the legs
- ☐ Under arms

Write the body parts that you should check for ticks.

1, 2, 3 let's stay tick free

O H G I W R Z X R I N Q U M A
T Z U Q C T E A I F E U B V D
A N I Y I W Q P F G I D O R U
Z X E D H H L I E X K Z Z M L
F U R N I T U R E L B C H S T
N D V S A N S V F A L T E F I
F M O V B E M J T J R A F H W
X Z R G Q X I H K Q G P N Y C
D A S Q S A S O O T S P K T R
L Z E D O O L B X P F V E P F
B A I B I Y X S U U X S G U E
Y N Y M P H Z H T E K M P C J
O N O S O K K Q M X M R C K N
R Q U U A M Y L V Y A E Z F C
Y K S O U F H U K U O G H E T

ADULT

BATHS

BLOOD

CHECK

DOGS

FURNITURE

REPELLANT

RMSF

GERMS

LARVA

NYMPH

1. 2. 3 let's stay tick free

TIKC

A horizontal number line divided into 4 equal segments by vertical tick marks. The number 4 is written below the rightmost segment.

CITK CECHK

A horizontal number line with four equal segments. The number 12 is written below the first segment.

A horizontal number line is shown, divided into five equal rectangular segments by vertical tick marks. Below the third segment from the left, the number 23 is written.

GUB TENRELP

--	--	--

		15				21	9	17

AYNHP

A horizontal number line with five equal segments. Below the second segment from the left, the number 5 is written.

RAVLA

	11	24	22	

SATHR

18			14	

BOODL

		2	16	20

TULAD

A horizontal number line divided into 5 equal segments by 4 vertical tick marks. The number 8 is written below the third segment from the left.

SEMRG

	19	1		

ВТНА

A horizontal number line is shown, divided into four equal segments by three vertical tick marks. The number 10 is written below the second tick mark from the left.

KITC RALOLC

A horizontal number line is shown, divided into four equal segments by three vertical tick marks. The third segment from the left is labeled with the number 3.

--	--	--	--	--	--

ODG

7		

UMLHAN

		6		13

1	2	3	4	5

6	7	8	9	10	11	12	13

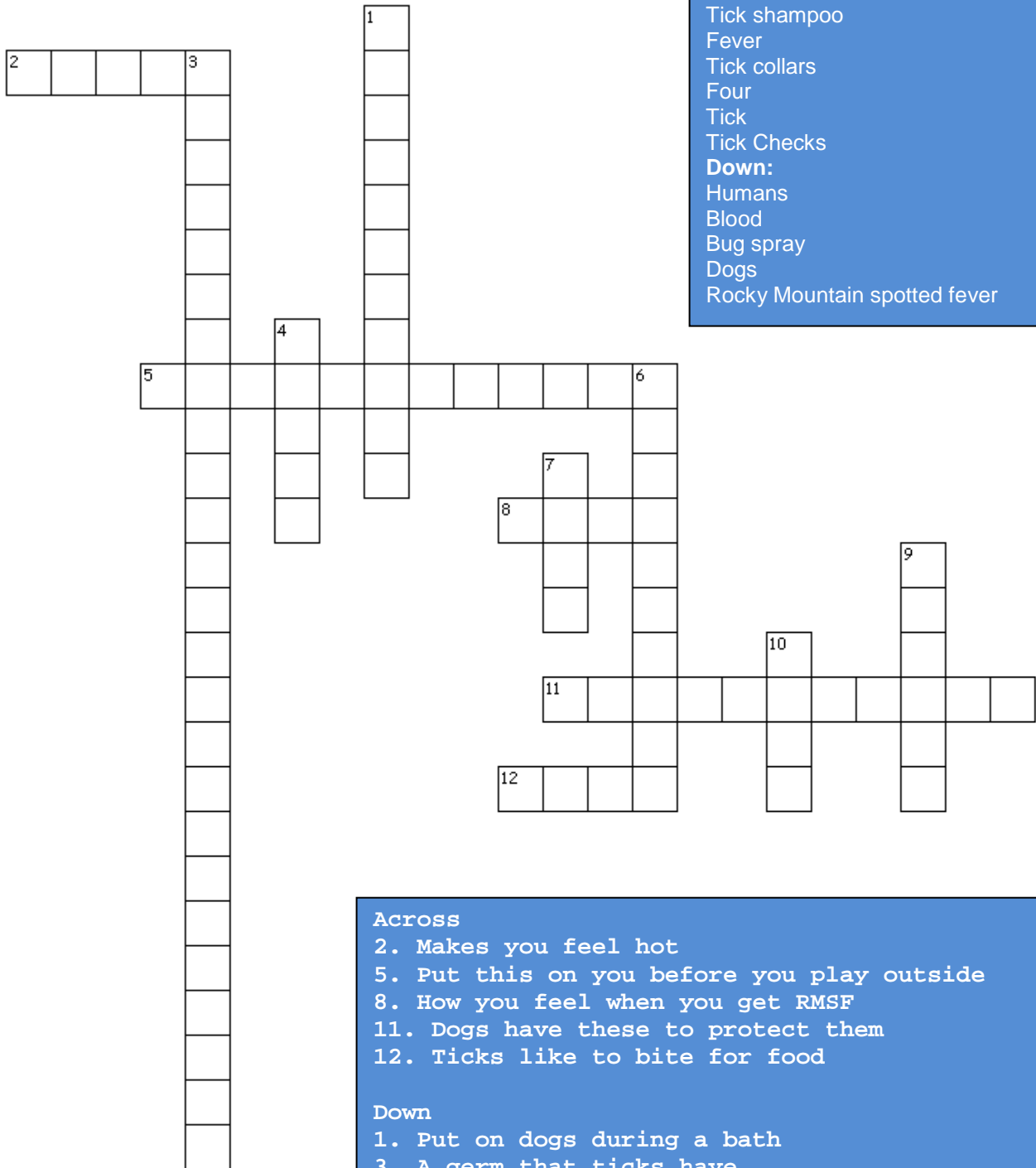
14	15	16	17	18	19	20

F				
	21	22	23	24

Unscramble each of the clue words.

Copy the letters in the numbered cells to other cells with the same number.

1, 2, 3 Lets stay tick free



Word bank:

Across:

Tick shampoo
Fever
Tick collars
Four
Tick
Tick Checks

Down:

Humans
Blood
Bug spray
Dogs
Rocky Mountain spotted fever

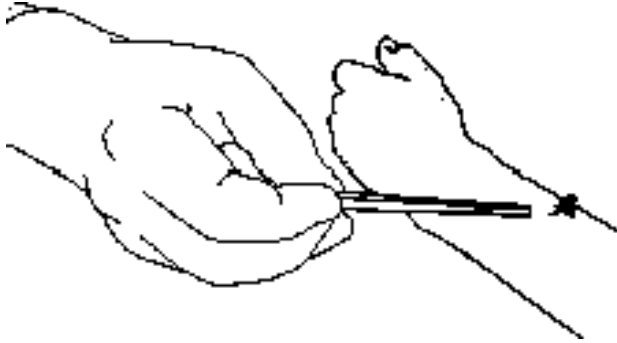
Across

2. Makes you feel hot
5. Put this on you before you play outside
8. How you feel when you get RMSF
11. Dogs have these to protect them
12. Ticks like to bite for food

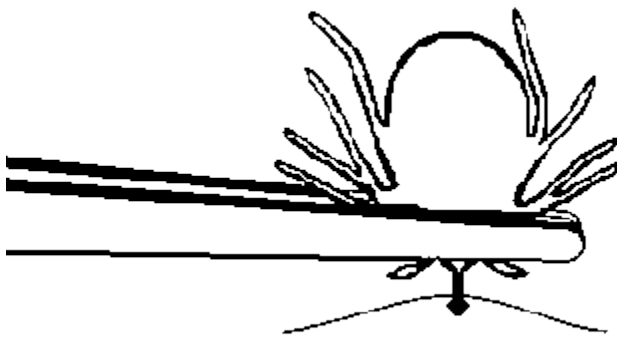
Down

1. Put on dogs during a bath
3. A germ that ticks have
4. Ticks will hide here until they find a dog
6. What you do after you play outside
7. Spider like creatures
9. Ticks will bite if no dogs around
10. Number of life stages of a tick

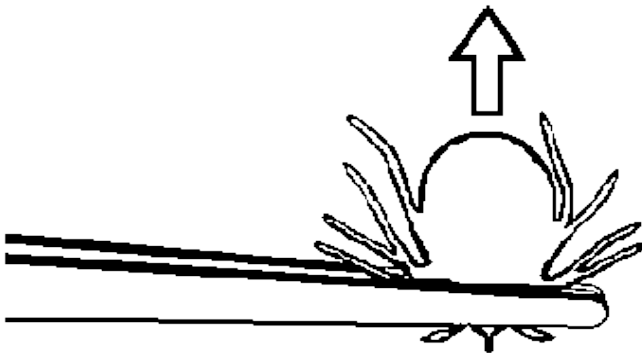
Directions: Draw a line from the step to the correct directions.



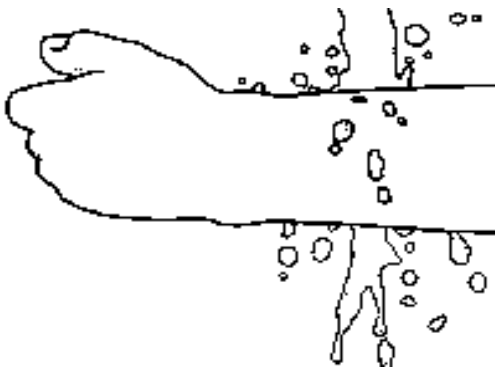
Gently pull straight up until all part of the ticks are removed



Wash the bite with soap and water



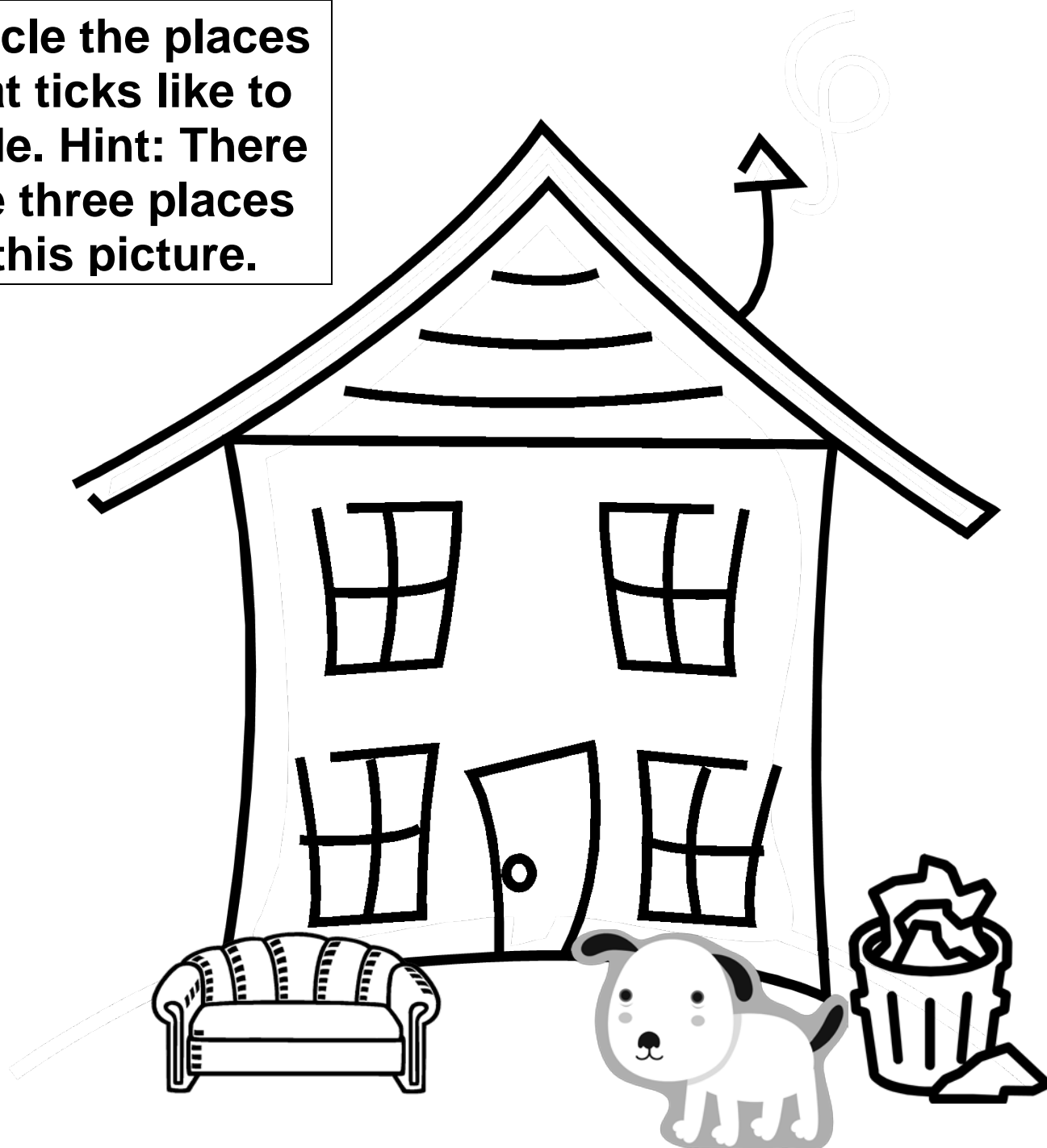
Grab close to the skin

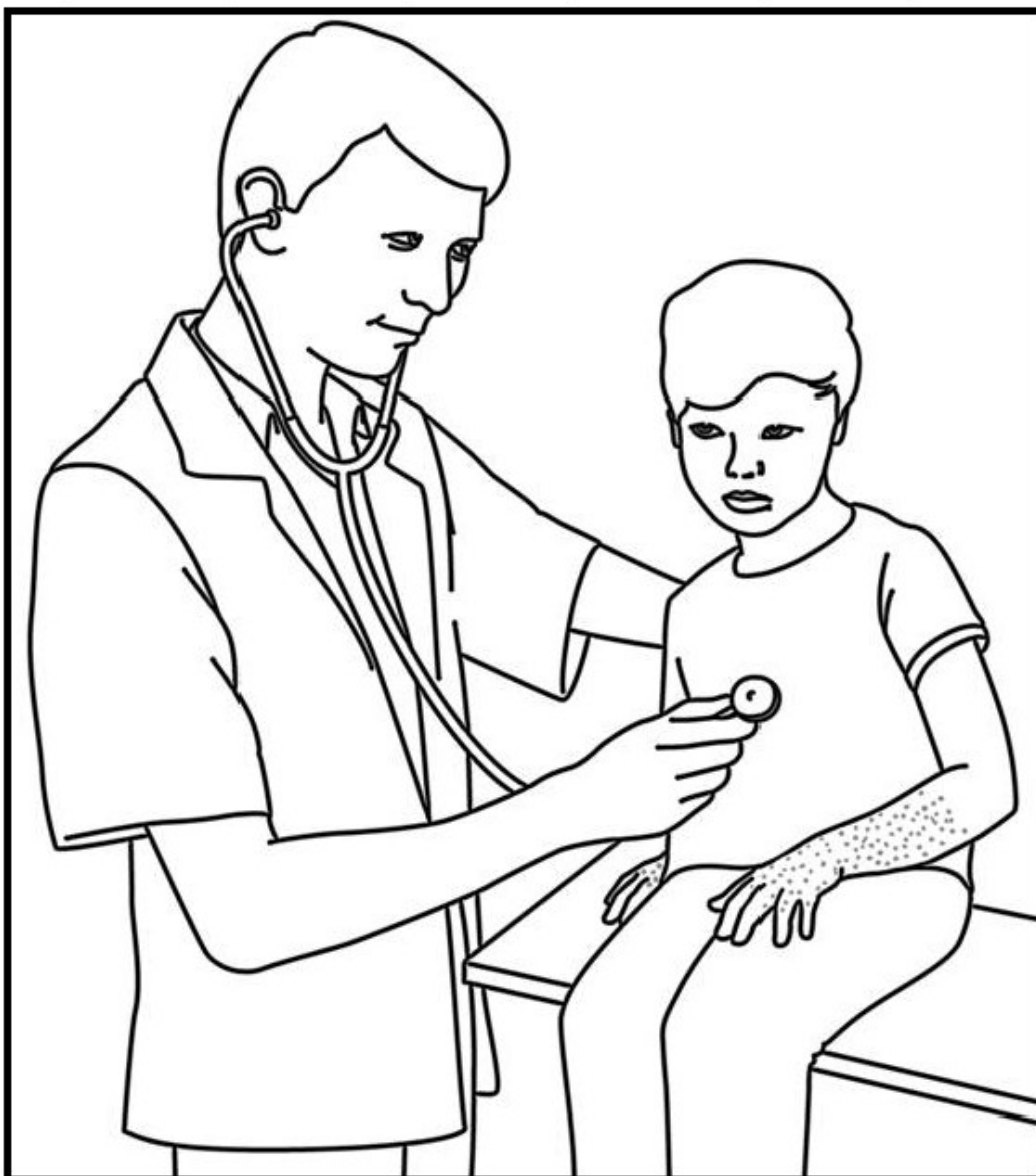


Use tweezers to remove ticks when possible



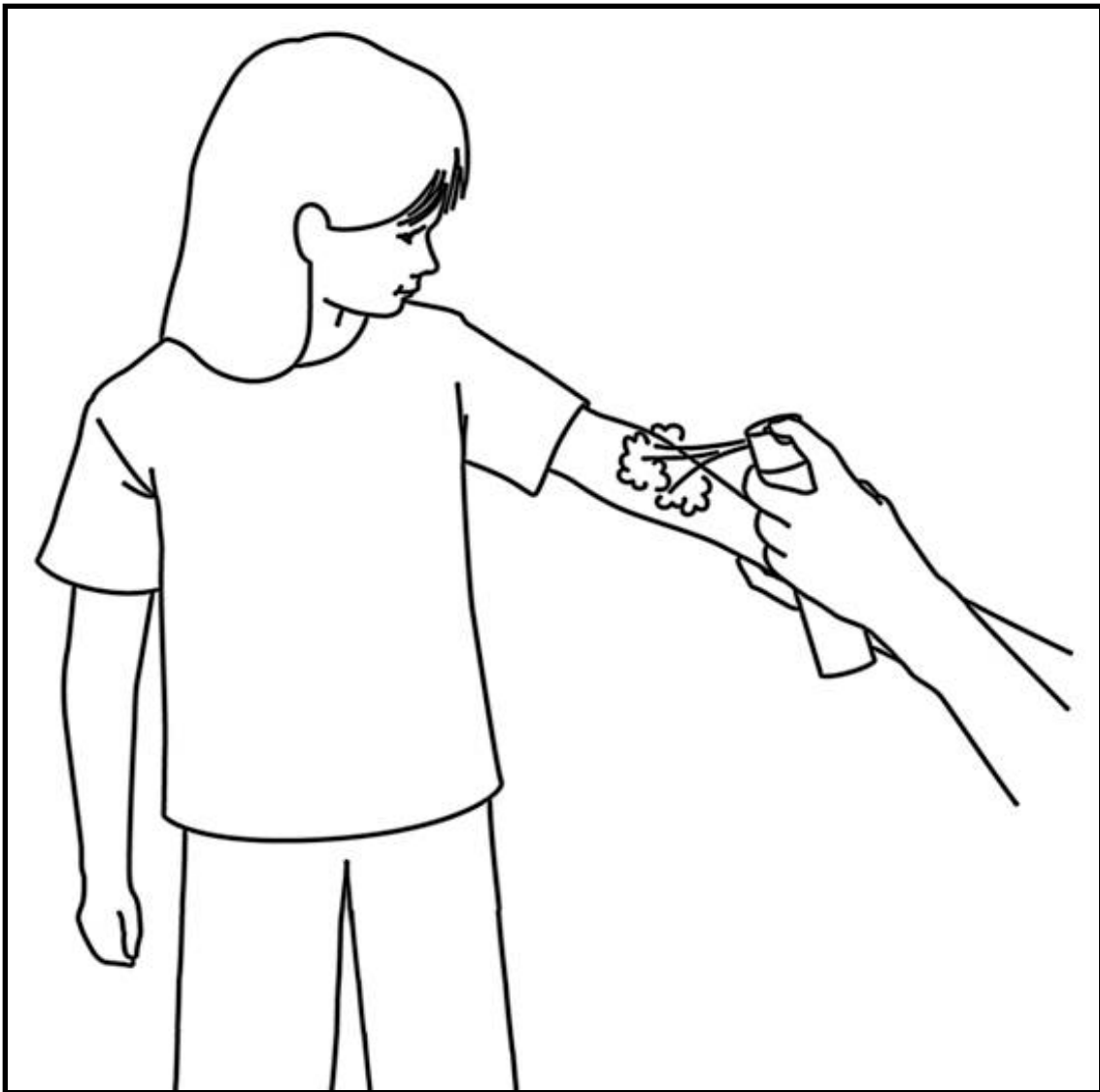
**Circle the places
that ticks like to
hide. Hint: There
are three places
in this picture.**





Name two signs that you need to see a doctor:

- 1.
- 2.



Insect Repellent

Choose the correct answers!

1. Insect repellents stop:

- a. Laughs
- b. Tick Bites
- c. Swimming

2. Parents should put repellent on children: (when)

- a. Every time a child plays outside
- b. A child takes a bath
- c. When eating ice cream

3. Do not put repellent on:

- a. Arms
- b. Toys
- c. Mouth, hands, and eyes

4. You should always

- a. Ask an adult to put repellent on
- b. Read the directions
- c. Both a and b

Tick Facts: What do you know?

Circle the correct answer:

1. If you find a tick attached to your skin, you should:
 - a. Squash it like a bug
 - b. Grasp it and pull it off
 - c. Grasp it with tweezers, close to the skin and slowly pull it off in upward motion
 - d. Wash it off
2. Ticks are:
 - a. Small spider like creatures
 - b. Large bugs
 - c. Bugs you play with
3. You want to remove a tick from yourself or pets because:
 - a. They are not your favorite bug
 - b. The tick can bite and give you germs that can make you or your pets sick
 - c. You do not like to play with them
 - d. None of the above.
4. How many life stages does a tick have:
 - a. 5
 - b. 2
 - c. 4
 - d. 1

5. Ticks can give you what germ to make you sick
 - a. SRMF- Spotted rocky mountain fever
 - b. RMSF-Rocky Mountain spotted fever
 - c. Nothing
 - d. Candy

6. Ticks like to hide:
 - a. On old furniture outside
 - b. On free roaming dogs
 - c. In trash in the street and yard
 - d. All of the above

7. What are ways you can protect yourself from ticks?
 - a. Daily tick checks for your family and pet
 - b. Bathe dog with tick shampoos
 - c. Collar your dog
 - d. Use Insect Repellant
 - e. All of the above

8. When do you need to tell your parents you feel sick and may need to go to the doctor?
 - a. If you have a fever, played in an area with ticks, and played with a dog that has ticks
 - b. If you are feeling great

Answer Key:

1. C

2. A

3. B

4. C

5. B

6. D

7. E

8. A

1, 2, 3 let's stay tick free

Teacher Survey

Please complete a Teacher Survey for each session you teach. Return the completed survey and student quizzes to the address below. Thank you!

Pre-Administration Assessment

1. Number of students who know what a tick is? _____
2. Number of students who can list one place where ticks can be found? _____
3. Number of students who know what Rocky Mountain spotted fever (RMSF) is? _____
4. Number of students who know how to do a tick check? _____
5. Number of students that know how to remove a tick? _____

Post-Administration Assessment (to be completed after program administration)

1. Number of students who know what a tick is? _____
2. Number of students who can list one place where ticks can be found? _____
3. Number of students who know what Rocky Mountain spotted fever (RMSF) is? _____
4. Number of students who know how to do a tick check? _____
5. Number of students that know how to remove a tick? _____

General Session Information

1. Name of teacher/instructor (optional): _____

2. Type of Organization:

_____ School

_____ 4-H

_____ Scouts

_____ Park Ranger

Other (please specify) _____

3. Date of Session: _____

4. Length of Session: _____ minutes

5. Total number of student participants: _____

_____ Boys _____ Girls

6. Age Range of participants: _____ to _____ years old

7. Grade level(s) of participants: _____ grade to _____ grade

8. Please tell us what you liked or did not like about the following items in terms of utility as a teaching tool.

PowerPoint

presentation_____

Handouts_____

Quiz_____

9. Please tell us your impression of what the students thought about the materials. For example, which media format did they prefer (if multiple formats were used) and what were their favorite or least favorite parts of the program?

The Lesson

(This lesson can be altered to teacher's needs)

1. Begin by asking the students the pre-assessment questions from the student page. You can hand out the pages to your students for them to complete themselves or utilize a show a hands. Note the number of positive responses to the question under "Pre-Administration Assessment on the Teacher Survey".

2. Using the PowerPoint show:

a. Play the "1, 2, 3 let's stay tick free!" PowerPoint show. Advance each slide by pushing **ENTER** or by mouse click so that details can be pointed out to students. (Teachers should bring tweezers to show class what they look like)

Familiarize yourself with the materials first and explain the information on the slides as you see fit.

3. Verify the students' understanding of the information by having the teacher use the quiz:

Quiz

Option A - The Team Approach:

- Divide the group into two to four teams.
 - a. "Game Show" approach (fast): Using the questions 1- 8 on the quiz worksheet, read each question and see what team answers correctly first. Discuss why each team chose their answer.
 - b. Team work/class presentation approach: Using the questions on the quiz worksheet, have each team discuss and answer one of the eight questions.
- Give each team a few minutes to discuss and decide on their answer. Have each team report their answers to the group.

Option B - The Group Approach (requires less time):

- The teacher can ask the questions of the entire group, using raised hands as an indication if the group thinks that the answer is. (*Note that the teacher should have a copy of the answer sheet*).

4. Distribute the "1, 2, 3 Let's Stay Tick Free" worksheets to each student. Allow students to look at the worksheet (the information in the worksheets mirrors what is in the PowerPoint presentation).

5. Answer any questions.

6. Suggest that the kids take the worksheets home and share with their families what they learned about ticks and Rocky Mountain spotted fever.

7. Complete the lesson by asking the students the post-assessment questions from the student page. You can hand out the pages to your students for them to complete themselves or utilize a show a hands. Note the number of positive responses to the question under "Post-Administration Assessment on the Teacher Survey".

8. Complete Teacher Survey and mail/fax/email along with the Student Post-tests. If you have ANY questions about "**1, 2, 3 let's stay tick free**" or you need more educational materials please contact:

Arizona Department of Health Services
Office of Infectious Disease
Office: 602-542-2521
Fax: 602-364-3199
150 N. 18th Avenue, Suite 140
Phoenix, Arizona 85007