



SHAKE A SHRUB: INSECT SAFARI *2021

Grade: 2nd PSD; 1st Thompson

Setting: any natural area

Theme (Bottom Line): Insects live everywhere and need a healthy habitat to thrive.

Recommended Time: 30 Minutes

Recommended Group Size: 10-15

State Standards:

- **Life Science (Life Science 2.2.2):** A range of different organisms live in different places

FOSS kit: Insects

Outcomes: Enjoyment, Learning, 21st Century Skills, Environmental Attitudes

MATERIALS LIST:

- White sheets/ table cloths
- 5 sweep nets
- 5 Insect identification guides
- 5 Bug boxes, hand lenses (one per student)
- Optional: Journal (Insect Search or For the Love of Bugs), pencils, and clipboards (at teachers discretion)

GETTING READY:

- Scout out good areas to find insects before children arrive.

INTRODUCTION:

- Introduce yourself and other volunteers. Encourage adults to participate. Remind students of the difference between a Park and a Natural Area. Explain the theme of the lesson and ask kids if they know what a safari is. Tell them they will be going on a “hunt” for creatures today and to use good observation skills to locate these animals.

ENGAGE

Get the students focused by asking some leading questions:

1. What creatures do you think live in this natural area? (They will probably mention lots of mammals and birds but maybe not insects).
 - Do you think the shrubs/grasses are home to anyone?
 - Who do you think lives here?
 - How can we find out?
 - How do you know? How many different kinds will you find?
 - 95% of all animal species are insects! Millions of insects can exist in a little area like this!

*This lesson was written by Zoe Shark, Susan Schafer, and Dolores Daniels of the City of Fort Collins Master Naturalist Department.



2. Let's explore!

Today you will learn:

1. Bugs are everywhere.
2. Bugs are fun to look at.
3. **Bugs need a healthy habitat.**

EXPLORE

Nat. Note: *Unfortunately, insects will not be active if the temperature is below 50 degrees. If it is too cold, you may want to discuss this inactivity with kids and pivot to look for signs of other wildlife. Also, shaking shrubs only works in the fall when there is enough foliage and time for the insects to inhabit the shrubs. In the spring, use the sweep nets in the grasses and weeds to get the insects moving. It is also worth noting in the spring that they may find some larval stage insects or even some egg sacks. Review life stages of insects with kids and take the time to look for signs of insects as you walk and explore.*

Fall Exploration

- Take the students to the shrubs or bushes that you've chosen.
- Give the kids their exploration tools.
 - **Ask** how would you use their tools to find insects?
- Let them try out their ideas. Afterwards, ask them what worked and what didn't work.
- **Explain** that there are a lot of insects living in and on the branches of shrubs. Demonstrate the proper "shrub shaking technique". As you do this, compare what you are doing to what the students attempted. Try to compliment them on ideas that worked.

Nat. Note: *Shaking Instructions: Place the sheet under the shrub so that some of the branches are overhanging it. Shake the branches or GENTLY hit the branches with the net handle (it unscrews). Have your partners hold the sheet so no creatures escape. Gather the four corners of the sheet and gently shake the animals toward the center. Next, set the sheet on the ground and observe the animals. These creatures will not hurt you.*

Spring Exploration

- Hand out exploration tools.
- Let them try to figure out how to use the tools. **Allow time for exploration.**
- **Demonstrate** the proper use of sweep nets by walking carefully and slowly through the grass.
 - Swing net slowly back and forth from side to side. Stop to check the net to see creatures, gather the net safely without hurting the insect.

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- **Ask** why is it important not to hurt the insects?
- Once you have some creatures to look at you can either dump the contents of the net out on a white sheet that you have lain out or you can transfer insects directly into a bug box.
- Break students up into 3-4 groups, allow them to explore different areas as you rove and ask questions, shift them to different areas. Establish a call back signal.

EXPLAIN

This is an opportunity for the kids to share and teach each other. You are the facilitator. Let the students try to develop their own theories.

1. What did you find? Describe any bugs you found. What would you name them?
2. Did you find different insects in different areas? How are they alike or different?
3. What do you think they eat? What do you think eats them?
4. Why would it have wings? Why does it not have wings?
5. Look up some insects in the ID books.

ELABORATE/CONCLUSION

Remind the students of our theme for the day: **Insects live everywhere and need a healthy habitat to thrive.**

- **Ask:** What do the seasons have to do with what we found today? Would we find the same insects in winter?
- **Discuss:** Insects are very adaptable, that's why we find them in almost every environment on earth!
- **Discuss:** Insects provide food to other animals and help with the recycling of dead materials. They are important.

EVALUATE

- **Ask:** What was your favorite insect? Did you enjoy looking for insects? Do you think this is something you could do at home on your own?

OPTIONAL ACTIVITIES

- Students can use the "Insect Search" or "For Love of Bugs" Journal to count and identify what they find. They can also draw pictures of their favorite bug or write about the insects they find. This journal will be at the discretion of the teacher and communicated to volunteers ahead of time for the program.

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