Activity Guide 3rd–5th
Tools of the Trade

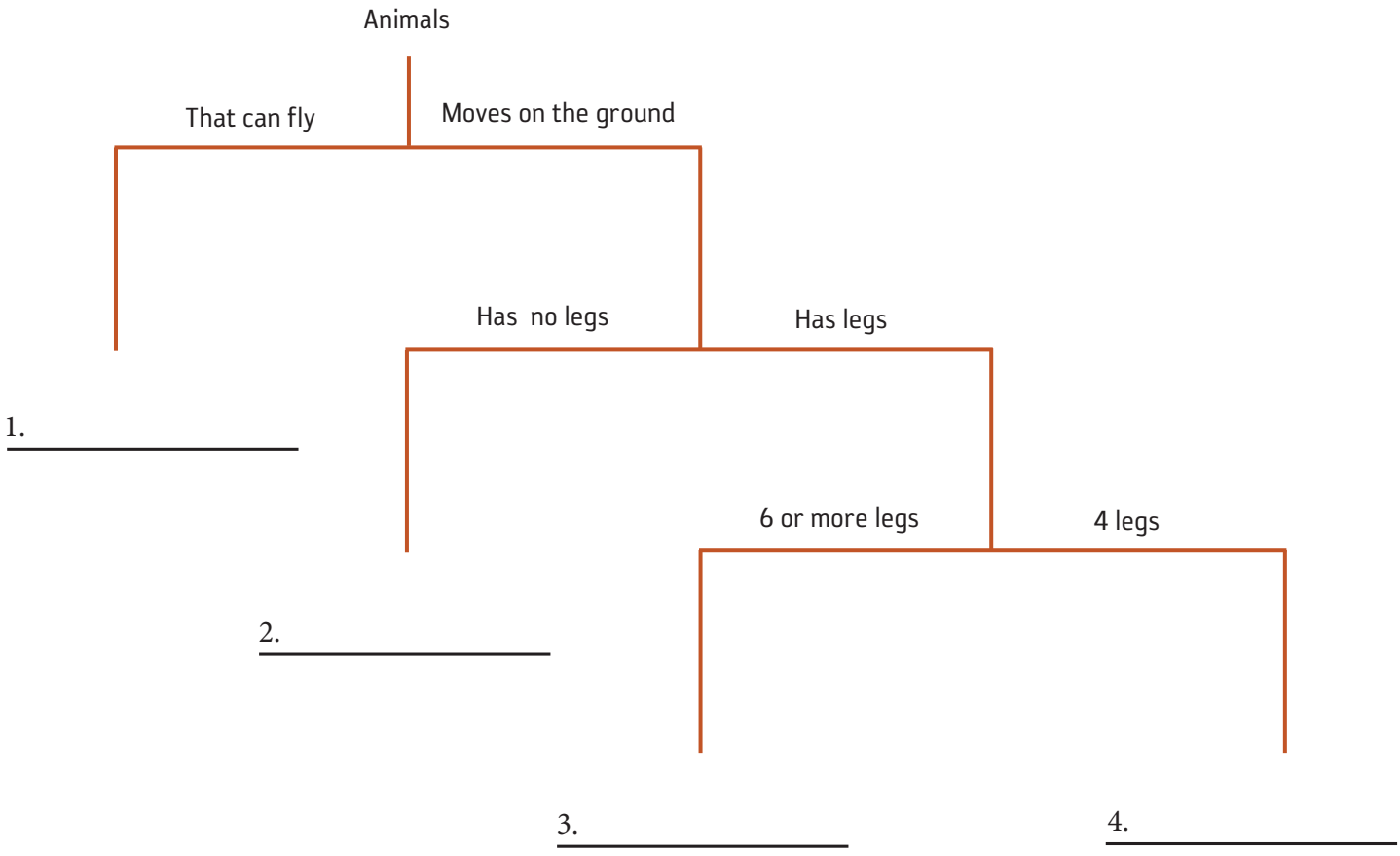
NATURE all around us

Nature really is all around us—in the mountains, cities, neighborhoods, and even school yards!

To learn about nature, scientists use all sorts of tools to solve problems, develop new questions, and connect with the world around them. Use the tools below and see what you can discover.

Yard and Garden – Dichotomous Key

Dichotomous keys are one tool that scientists use to figure out what an animal or plant is. **Follow the branches to find the features of one animal and then fill in that animal at the bottom of the key.** All of the animals are here in Rebecca's backyard. Can you find them? Each blank space might have multiple correct answers.



NATURE all around us

Urban Forest – Nature Journaling

A nature journal is a great way for scientists to record what they see. The journals can be used to record data, observations, feelings, stories, and drawings. **Find your favorite tree on the Discovery Cube Tree ID station.** Spend some time with this tree. What do you notice? What stands out as special to you? **Use the space below for a journal entry about this tree.** You could write a poem, draw a picture, note observations such as size, shape, or color. The world is your oyster (or should I say tree?)!

Need some help? Use the **Timber** activity to find the perfect tree for you!

Wildlife Urban–Interface – Animal Tracking

There are many things that we can learn about animals even without seeing the actual animal. **Use the clues below to make an inference** (best guess based on the evidence).

Clue:	**Inference:**
Distance Between Foot Prints	Walking vs. Running
Poop (Scat)	
Foot Print (Track)	
Fur on Tree or Rock	

NATURE all around us

Scat (poop) can be especially helpful for scientists. The shape and size of scat can help a scientist figure out what animal it is from, and the contents can help the scientist discover what the animal ate. Use the Discovery Cubes and the pictures below to identify what the animal might have eaten.

What did the animal eat?

Coyote Scat

_____

Skunk Scat

_____

Mule Deer Scat

_____

Mountain Lion Scat

_____

Rivers and Streams – Creating Models

Building and using models can help scientists learn more about how different processes work. **Find the Water Run-Off interactive** in the Runaway Run-Off section of Rivers and Streams Section. Play with this model—try all the different settings. **What did you learn from this model?**

_____

_____

_____

How can you or your class help protect our rivers and streams?

_____

_____

Main Street – Ethogram

An ethogram is a tool scientists use to understand the different types of behaviors animals are doing during a period of time. **Use the table below to complete a simple ethogram with the rats in the Main Street section**. **Pick one rat** to watch for two minutes. **Record a tally mark** every fifteen seconds next to what the rat was doing at that time. If needed count out loud with your group (Lead Explorer should keep time for the full two minutes).

Eating	
Running	
Walking	
Sleeping	
Playing with other Rat	

Share with your friends what your rat was doing. **Draw a picture below of one behavior of your rat.**

Thanks for exploring as a scientist today! You can be a scientist every day and continue discovering what nature is all around you.

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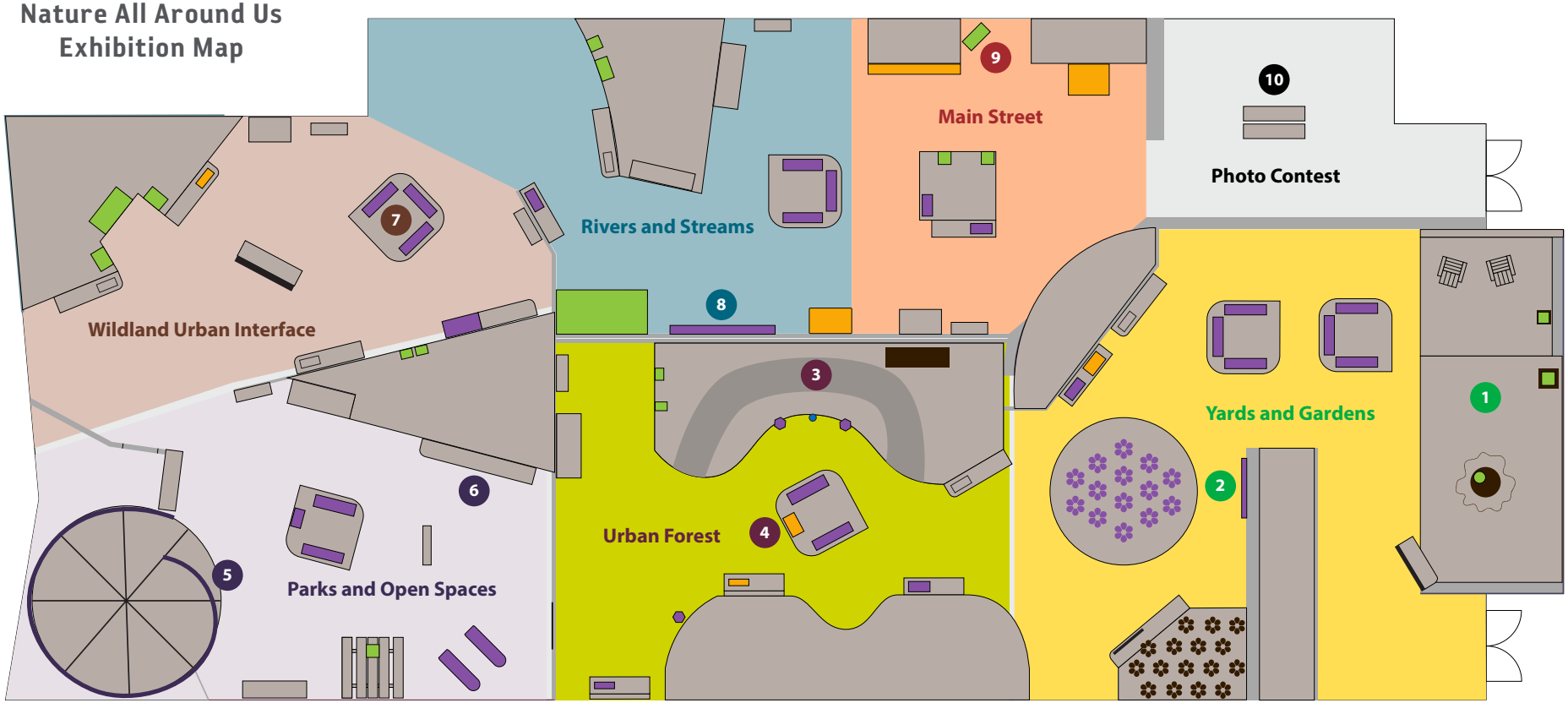
NATURE
all around us

Nature All Around Us Exhibition Map



- Yards and Gardens
- Urban Forest
- Parks and Open Spaces
- Wildland Urban Interface
- Rivers and Streams
- Main Street
- Photo Contest

1. Rebecca Ray's Backyard
2. Pollinator Costumes
3. Crawl Through Tunnel
4. Timber Activity
5. Art Installation/Poetry
6. Novel Ecosystems
7. Scat Discovery Cubes
8. Water Run-off Activity
9. Rats
10. Photography Exhibit

- Digital Interactive
- Physical Interactive
- Live Animal