

Exploration Leaves

COMPARE

What's different about these leaves? Describe each leaf using words.



Black Spruce

Does this leaf have any pointy parts?

Are there different parts to this leaf?



Bear Oak

How are the top and bottom of this leaf different?

How would you describe the shape of this leaf?



Sycamore Maple

How would you describe the edges of this leaf?

Do you see any patterns on this leaf?

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FUN FACTS



Black Spruce

This leaf is often confused with that of fir trees. The Black Spruce is used mainly for paper and is one of the very few trees in the North that can grow on wet ground.



Bear Oak

This tree is native to northeastern America. It only grows to fifteen feet tall.



Sycamore Maple

This tree grows from eighty to a hundred feet tall! It looks similar to the sycamore, another popular urban tree. One way to tell this tree is a maple and not a sycamore is to look for the fruit - a doublewinged maple key.



Exploration Leaves

FIELD JOURNAL

Instructions

Let's go on a leaf hunt! Think of some places near your home where you might be able to find some leaves.

Try to find at least three different leaves and draw a picture of each one. (You can look at leaves that are on the ground or ones that are still attached to their trees.) As you are drawing, you might want to think about these questions:

- Where did you find these leaves?
- How would you describe this leaf?
- Are parts of your leaf pointy?
- Are parts of your leaf smooth?
- Can you find the tree that this leaf came from? What kind of tree do you think that is?
- How are the leaves on the ground different from the leaves that are still in the tree?

When you are finished, look at all of your pictures. How are these leaves the same? How are they different?

Your Name:	Today's Date:
What's the Weather Like?	

Draw the leaves you see in the space below.



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TIPS FOR ADULT HELPERS

General Tips

- 1. Try to ask children open-ended questions.** These kind of questions help children talk about nature. For example, a useful open-ended question could be, “How would you describe this shell?”
- 2. There are many “correct” answers.** When asking open-ended questions, remember that there is no one “correct” answer. There are many “right” answers. The goal is to have children and adults have a thoughtful discussion.
- 3. Praise thoughtful answers.** If you ask a close-ended question (such as “What animal lives in that shell?” or “What color is that bird?”), any thoughtful answer could be praised. Even if the child’s answer is inaccurate, you could say something like, “That was a great idea. You know, that is how scientists learn, by thinking and trying out different ideas.”
- 4. Start from what the child knows already.** When trying to get a thoughtful discussion going, start with what the child already knows about a topic. Use that information as a springboard for further exploration. Through discussion and exploration, children can expand and revise their knowledge about nature.
- 5. Explore together.** If the topic is new to you as an adult helper, share this information with the child. You can make guesses and explore together. All science starts off with questions, not answers.
- 6. Science IS exploration and discovery.** When you let children try out different theories, you help introduce them to the scientific method and start building research skills.
- 7. Explore a science book together.** If a child is interested in a particular topic, you might want to follow up the activity reading a science book together and writing down what you have learned about the topic.

Examples of Open Ended Questions About Leaves

When you **compare and contrast** different leaves, you might begin by asking questions such as:

- Does this leaf have any smooth parts? Does this leaf have any pointy parts?
- How would you describe the edges of this leaf?
- Do you see any patterns on this leaf?
- Is this leaf all one color?
- Are there different parts to this leaf? How would you describe each part?

To discuss **similarities and differences**, you might want to ask questions such as:

- How are these leaves similar to each other? How are they different?

If the child is having a hard time coming up with ideas, you might prompt her/him with more narrow questions such as:

- Are all of these leaves the same color?
- Are all of these leaves the same shape? How are the shapes different?
- Look at the edges of each leaf. Are they all pointy? Are they all smooth?

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TIPS FOR ADULT HELPERS

General Examples of Open Ended Questions About Leaves Tips

During your discussions of leaves, you might talk about the **veins of the leaf and their function**. This could come out of a conversation about the patterns in leaves.

You might also ask the child:

- Have you even seen a leaf like the one in the picture?
- What do you think the tree it came from looked like?

While observing leaves, you might discuss math concepts such as **symmetry**.

When you are working with real leaves, you might consider doing some **leaf rubbings** with the child. Rubbings can be done using regular paper and a crayon. If the child is interested you might want to try rubbings of the tree's bark, etc.