

Material Preparation

MATERIALS

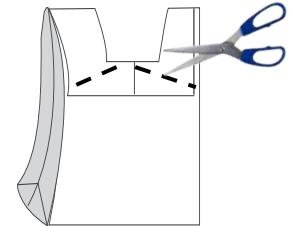
- scissors
- container (*shoebox, clear plastic container, basket, etc.*) to hold and display leaves in the science area after the *Leaf Search*
- enough artificial or real leaves of various colors, shapes, sizes, and textures or real leaves to sort by at least three attributes: narrow, wide, round, pointed, bumpy, smooth, green, brown, orange, elongated, or leaf vein patterns

For each child and the teacher:

- plastic grocery bag (leaf bag collector)
- set of *Leaf Lotto Cards*
- *Leaf Lotto Board*
- *Ask Me About Plants* sticker

PREPARE IN ADVANCE

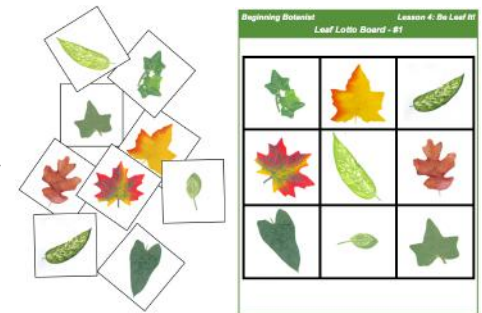
- Make leaf collector bags, one per child:
 - Cut front side of each bag handle.
 - Tie cut ends of bag handles around child's waist when you are ready for the *Leaf Search*.
- Make one set of *Leaf Lotto Cards* per child and one for the teacher.
- Make one *Leaf Lotto Board* per child and one for the teacher. Each child should have a different version of the *Leaf Lotto Board*.
- Place assortment of real or artificial leaves in a container and set aside.



SET UP THE LESSON AREA

- Set aside a *Leaf Lotto Board* and a set of *Leaf Lotto Cards* for each child.

NOTE: The *Leaf Search* in this lesson can occur during a regularly scheduled outdoor play period. If you can't go outside for the *Leaf Search*, hide artificial or real leaves throughout the classroom.



For each child

TEMPLATES

- *Leaf Lotto Cards*
- *Leaf Lotto Boards*

OBJECTIVE

Children will examine and compare the different colors, shapes, and sizes of leaves.

EXCITE

Gather the children in the ECHOS lesson area. Hold up the grocery bag of leaves, then tip the bag upside down and let the leaves fall out. **Wow! What do you think these are?** Accept children's answers. **Yes, these are different types of leaves. Where do leaves come from?** Accept answers. **Yes, these leaves come from trees and plants.**



INTRODUCE

1. **Leaves come in many different shapes.** Hold up a leaf with a rounded edge. **This shape has *rounded* edges.**
2. Hold up another leaf that has pointed edges. **This shape has *pointed* edges.**
3. Hold up a green leaf in one hand and an orange leaf in the other. **Leaves also come in many different colors. Tell me what color these leaves are.** Listen to the children's responses. **Those are good observations!**
4. **Wait! I have one more question.** Hold up a very tiny leaf and a larger leaf to compare sizes. **What's different about the size of these leaves?** Listen to the children's responses. **One is *large* and one is *small*. Good comparing!**



different colors



different sizes

5. **Today we are going on an exciting Leaf Search. We're going to walk outside to search for leaves. You'll need a leaf collector bag like this one.** Hold up one leaf collector bag to model for the children how the bag serves as a "pocket" to put leaves in.

6. Tie a leaf collector bag around each child's waist.

NOTE: *If you are conducting the Leaf Search in your classroom, have the children wait until everyone has a leaf bag tied around their waist before they begin searching for leaves in the classroom. Prior to the Leaf Search, gather the children in one space to remind them to use "walking feet" in the classroom and to assure them that there are plenty of leaves for everyone to find.*

7. Gather the children to proceed to the outside area. **Remember, when we walk outside we need to stay close together.** Take the children outside. Allow enough time for the children to collect a variety of leaves.

8. Regroup the children to discuss the characteristics of the leaves (e.g., rounded/pointed, small/large, narrow/wide, bumpy/smooth, dark/light. Review colors. Ask each child to hold up one leaf and talk about what they observe. Prompt if needed.

- **Can we put the long and pointed leaves in one pile?** Have the children add to a pile of long and pointed leaves in the center of the lesson area.
- **Can we put the leaves that have a round side in another pile?**
- **How else can we sort the leaves?** Guide the children to look closely at their leaves and make piles according to their suggestions and various attributes.

NOTE: *Attributes may vary. Prompt children to notice other attributes besides the color of the leaves.*

Colors: green, yellow, red, brown

Shapes: circles, ovals, triangles, hearts, stars

Textures: bumpy edges, smooth edges



NOTE: If the Leaf Search took place outdoors or in the classroom with real leaves, the children can take their leaf collector bags home with them at the end of the school day. If the Leaf Search took place in the classroom with artificial leaves, collect bags and save the leaves for the science area.

EXPLORE

1. **We are going to play a game called *Leaf Lotto*. I will give each of you one *Leaf Lotto Board* and nine *Leaf Lotto Cards*. Let's use our eyes to observe the pictures of these leaves.**
2. **This is how to play. First, look very closely at the pictures of the leaves. Next, try to match them with the pictures on the board.**
3. Hand out a set of *Leaf Lotto Cards* and one *Leaf Lotto Board* to each child. If needed, show the children an example of how to match a card to the lotto board. Allow the children to freely explore matching the cards to the board. Guide children when needed to find the matching leaf on their board. When each child's board is covered, collect the materials.



INTERACT


Interact to accommodate children's individual needs and strengths. Use these suggested strategies as needed:

- Rather than filling the whole board, children can shout "BINGO!" after they have made a row across, down, or diagonal.
- To help children learn about local trees and plants, make photocopies of leaves found in your area and tape them onto the blank *Leaf Lotto Board* and the blank *Leaf Lotto Cards* provided.
- Children may need guidance matching their leaves to the *Leaf Lotto Board* and recognizing colors or shapes.
- During outside walks, keep children close together in a group. Have children find a buddy and hold hands with their buddy. Hold any child's hand if they have a hard time staying with the group.
- This activity can be divided into two days of lessons. The *Leaf Search* and discussion can be conducted on the first day, and the following day you can introduce *Leaf Lotto*.



Leaf Lotto BINGO Option
(leaves in a row)

OUTCOMES

1. Regroup the children in the ECHOS lesson area. **What did we discover today?**
Listen to the children's responses. If needed, use suggested prompts to elicit key concepts and vocabulary. Encourage responses from everyone.
 - **What leaf shapes did you discover?**
 - **What leaf colors did you discover?**
 - **How did we sort the leaves we found?**
2. Recap and review the unit key concepts by asking and prompting children to recall something they learned from any of the prior *Beginning Botanist* lessons.
3. Give each child an *Ask Me About Plants* sticker. 

Remind the children to tell their family something they have learned about plants.
4. After you have completed *Lesson #4: Be Leaf It!* with all the children in your classroom, add the ECHOS materials suggested below to your science area to encourage exploration.

VOCABULARY

- rounded/pointed
- small/large



real or artificial leaves of various colors, shapes and sizes



Leaf Lotto Boards and Leaf Lotto Cards

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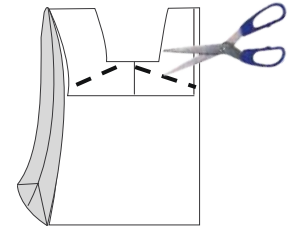
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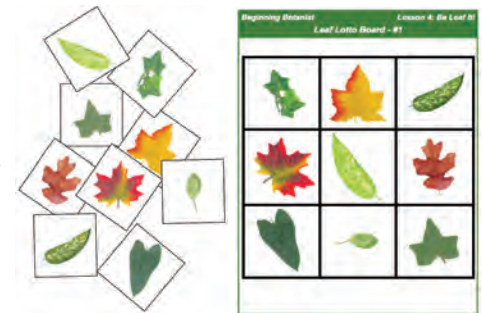
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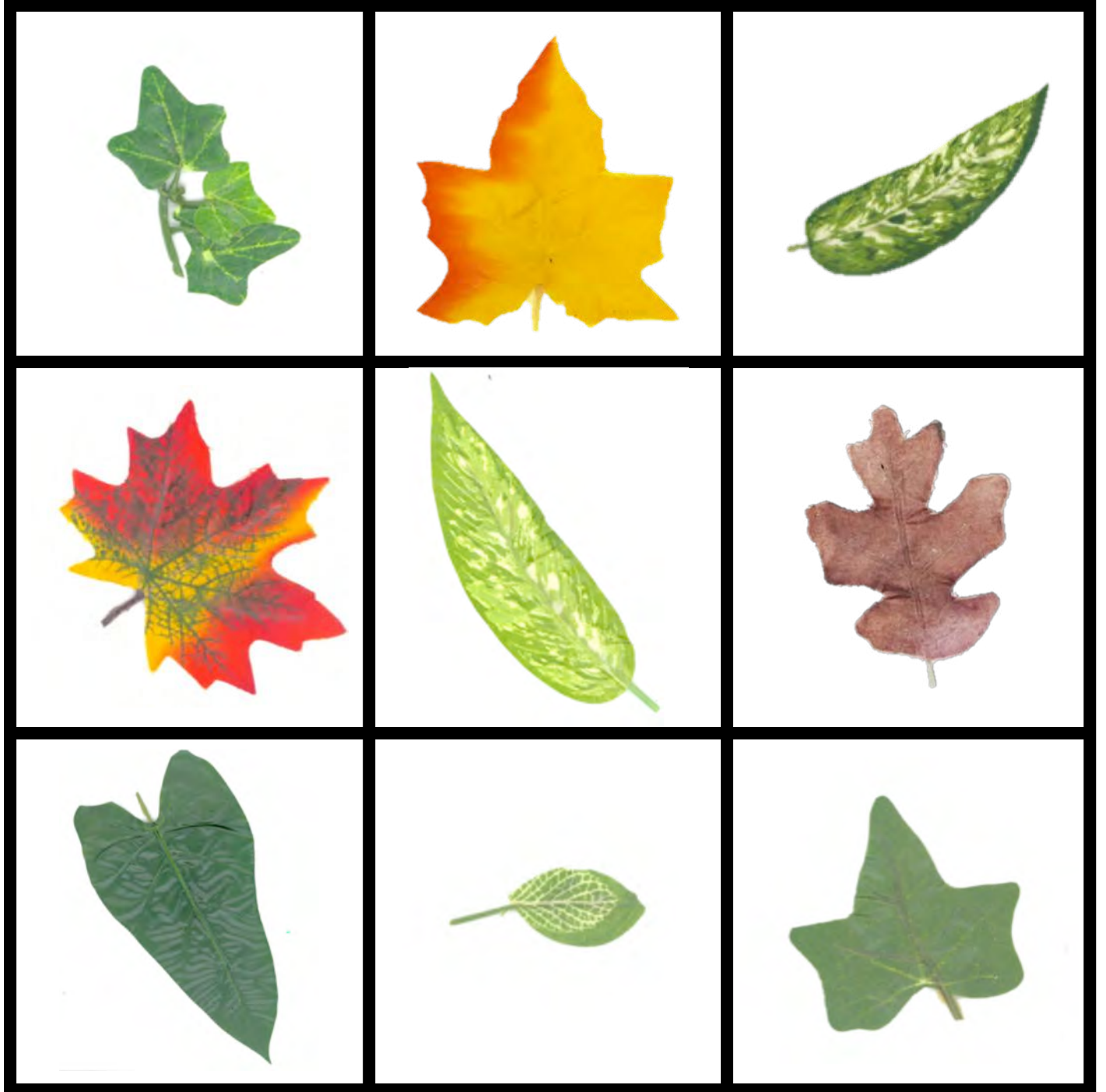
Leaf Lotto Cards

Instructions:

1. Use 8½" x 11" card stock and make one copy per child, plus one for the teacher.
2. Cut cards using scissors or paper cutter.
3. If using a non-color copier, color leaves red, brown, green or yellow to match the *Leaf Lotto Boards*.



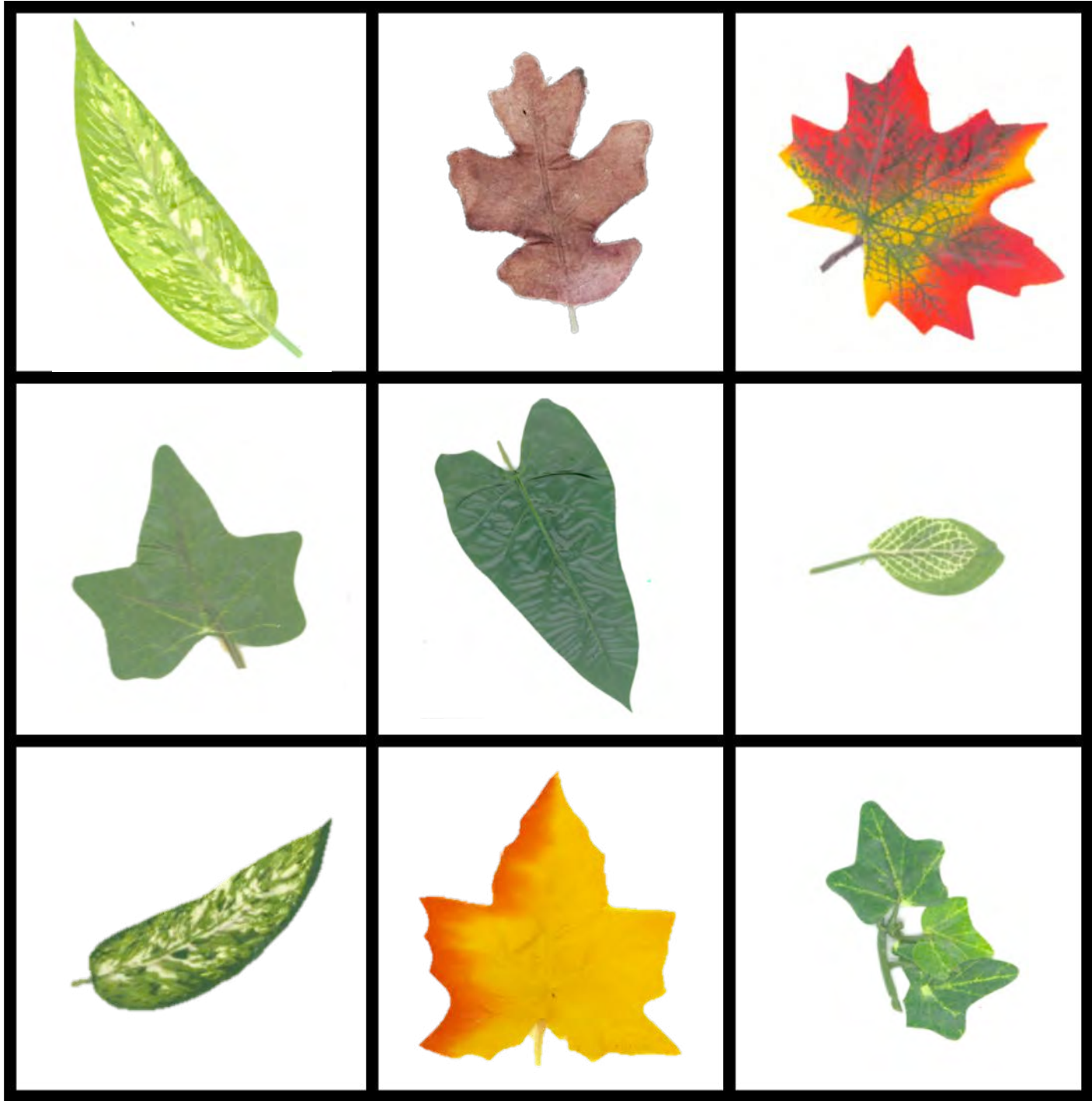
Leaf Lotto Board - #1



Leaf Lotto Board - #2



Leaf Lotto Board - #3



Leaf Lotto Board - #4



Leaf Lotto Board - #5



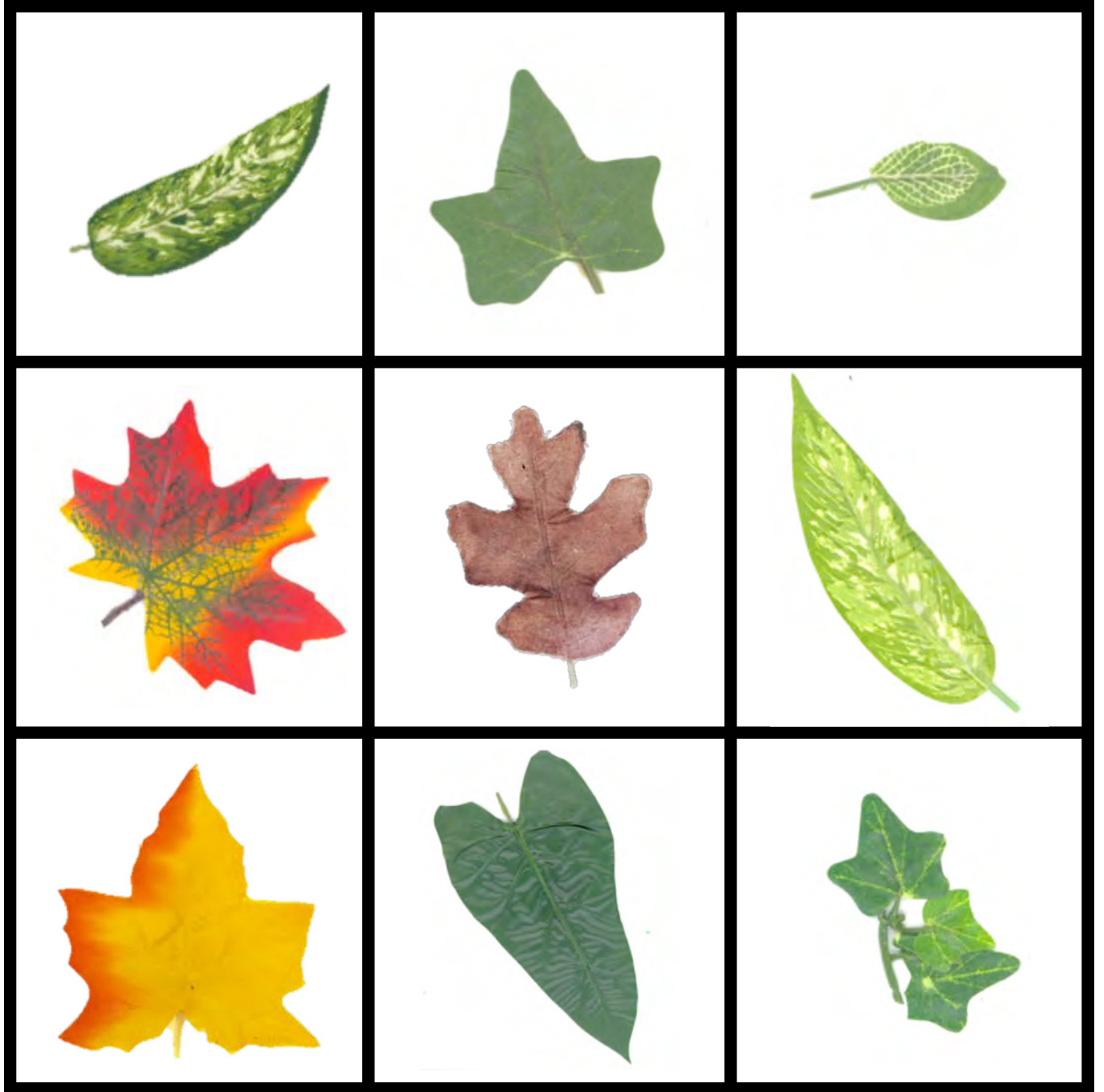
Leaf Lotto Board - #6



Leaf Lotto Board - #7



Leaf Lotto Board - #8



Leaf Lotto Board - #9



Leaf Lotto Board – Optional Template

Instructions:


1. Paste photocopies of local leaves in the squares below to match your own set of *Leaf Lotto Cards*.
2. Change the arrangement of leaves to make a unique board for each child.
3. Use 8½" x 11" card stock to make one board per child, plus one for the teacher.
4. If desired, color leaves red, brown, green or yellow to match the *Leaf Lotto Cards*.

Leaf Lotto Cards – Optional Template

Instructions:

1. Paste photocopies of local leaves in the squares below to match your own *Leaf Lotto Boards*.
2. Use 8½" x 11" card stock to make one copy per child, plus one for the teacher.
3. Cut cards using scissors or paper cutter.
4. If desired, color leaves red, brown, green or yellow to match the *Leaf Lotto Boards*.

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