Mississippi River Explorers

Day 1
River of Life
Crosby Farm Regional Park - St. Paul, MN

Mystery:

What do plants and animals do when the river floods?

My hypothesis: _____

_____

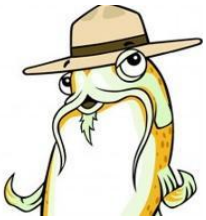
_____

_____

NATIONAL PARK SERVICE

WILDERNESS INQUIRY

MISSISSIPPI PARK CONNECTION
Discover your river



Ecosystems 101

Floodplain Forest

Define an ecosystem:

Give an example of an ecosystem:

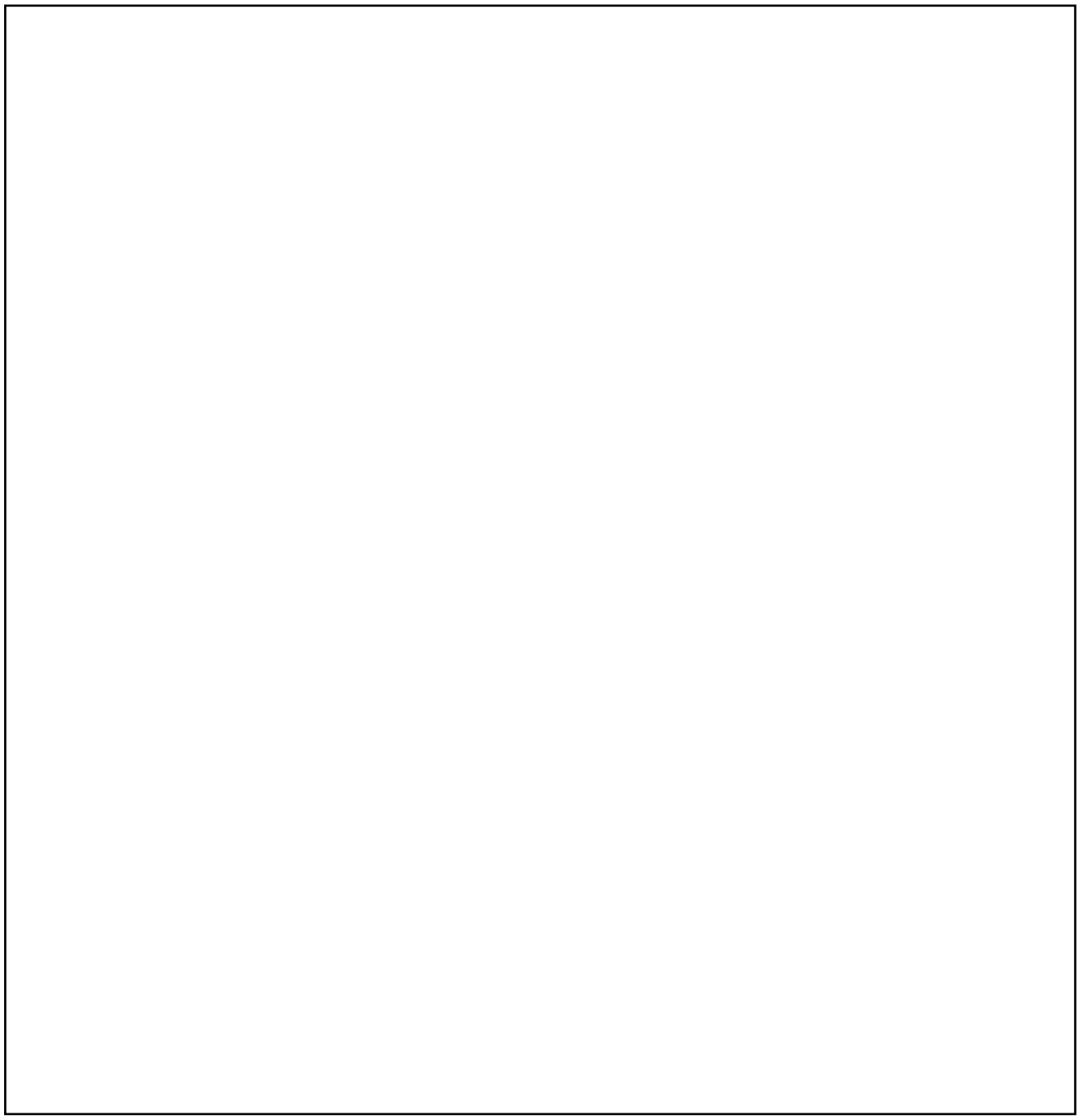
Can you list 2 living (biotic) and 2 nonliving (abiotic) things that are in your backyard?

Biotic	Abiotic
1.	1.
2.	2.

Ecosystem Comparison Chart: Take notes to compare and contrast the different ecosystems.

Name of ecosystem	**My Home**	**Floodplain Forest**
Draw a picture of the ecosystem		
Identify or draw two animals		
Identify or draw two plants		
Describe or draw the weather		

Draw a picture of yourself with an adaptation you would like to have.



Let’s Explore Roots

The goal of this experiment is to understand how different roots absorb water and how that relates to soil erosion and floodplain forests.

Materials

- Paper towels (3 half sheets) **compostable*
- Scissors
- Permanent marker
- 3 clear cups **compostable*
- 2 paper clips
- Water

Instructions

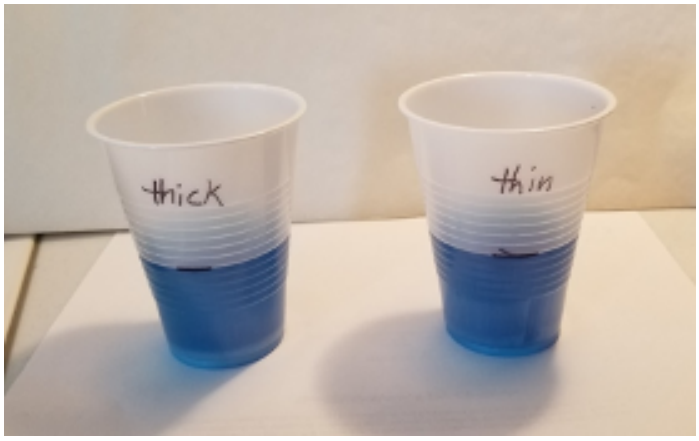
Step 1: Take ONE paper towel sheet and roll up towel from the long edge. After you roll the sheet, press down to flatten the paper towel. Once flattened, use a paper clip to secure roll about 2-3 inches from edge. Repeat this step using TWO paper towel sheets.

Step 2: Make one cut with scissors about half way up, representing the tree with fewer, thicker roots (photo A). Take the one with TWO paper towels and cut half way up with three to four cuts, representing the trees with thinner and more roots (photo B).

A: Thick Roots

B: Thinner Roots

Step 3: Next, fill each cup halfway with water. Using your marker, draw a line at the water level. This is so you can later see how much water has been absorbed. Label one cup THICK and the other THIN.



Step 4: Dip the individual roots into their corresponding cup of water. Count to ten and then take out the roots. Place the wet paper towels into your third cup, be careful not to drip! Now, compare the water left in each cup and record your observations with the questions below.

Questions and Observations

1. Which root system absorbed the most water? Why do you think that happened?

2. How do tree roots help prevent soil erosion?

3. Why do trees need roots?

FYI When you are discarding your supplies, the cups and paper towels are **compostable**! If you don't know what that means, ask your leader or teacher.

Explore Your Backyard

Now that you've learned about the many species that thrive in a floodplain forest and tips and tricks to tree identification, we want you to investigate and identify the trees in your neighborhood!

Using your tree ID booklet, take a stroll around your neighborhood and try and spot species like Cottonwood and Silver Maple.

Do these trees live in your neighborhood, too? If not, what trees do you see? Does the season affect how you identify trees? Record your observations below.

Describe & identify the trees you see:

Draw the trees you see: