



Nature Nuggets: Cattail Curiosities

Audience: 4-7 year olds and parents/guardians. Each station can accommodate 10-15 kids at a time. Younger and older siblings are welcome but content is geared towards 4-7 year olds.

Theme: Ponds may not look it, but they are full of life! Investigate the plants and animals that call a pond home!

Materials:

Blankets for sitting
Books
Stuffed animals
Dip nets
Dip net trays
Picture of frog life stages
Picture of Tiger Salamander
Frog life stage poster
Pictures of uses for cattails
Rope with jump distances marked
Cattail dissection kit

1: STORY CRITTER CORNER

1 MNA

This is a free-flow activity so kids can come and go as they please. It will be a self-lead station on blankets with books and stuffed animals for parents to engage with their children.

Books:

Good Morning, Pond
Jump, Frog, Jump!
Pond Walk
In the Small, Small Pond
Would you rather be a Pollywog?
From Tadpole to Frog
Turtle Splash: Countdown at the Pond
Over and Under the Pond

2: NATURE WALK

1 MN, 1 MNA

Introduction: Let's go explore the water's edge! You can walk along the edge of the water and find a spot to look and see what's below the surface.

Theme: Ponds may not look it, but they are full of life! Investigate the plants and animals that call a pond home!

Stewardship message: Ponds and rivers are home to many different animals. We want to be careful what we put into water and roads (which ends up in rivers) so we don't destroy these habitats.

Optional talking points:

- Animal life cycles – some insects and frogs may live out of water, but they lay their eggs in water and therefore need water to survive.
- Cattails – animals use cattails to build homes (red-winged black bird, muskrat), cattails are like straws which allows them to 'breath under water', cattails can take over and not allow other plants to grow so natural areas sometimes pulls them.
- Food chain – small insect larva provide food for many animals, insects provide food for frogs and birds so insects in water are a good sign!

Conclusion: Thank everyone for coming to the program and remind them of the other stations available. Encourage kids and parents to come to other events and activities and remind the parents of up-coming programs with the Natural Areas.

3: ACTIVITY

1 MN, 1 MNA

Introduction

Introduce yourself and thank the kids and parents for being there.

Ask the children:

- *Do you like ponds? Why or why not?*
- *Do you think ponds are exciting? Or still, quiet and boring?*
- *What lives in a pond? (All sorts of animals! Frogs, fish, beaver, insects, turtles etc.)*

Explain that today they are learning about the plants and animals that call a pond home. If some have already visited other stations, you may start by asking what they have learned or seen so far.

Body

Cattails

- Ask the kids if they know what cattails are. Point out the cattails growing near the water.
- Ask what they think other animals might use cattails for.
 - Waterfowl, red-winged blackbirds, fish, frogs, salamanders all nest and lay eggs in the thick mat made by cattails
 - Eaten by muskrats and used to build shelters
 - Birds use the seeds to line their nests
 - Used as cover by deer, raccoons, rabbits and turkey
 - Insects live on and eat them

Frogs – life cycles

- Explain that many animals living in a pond go through different life stages (insects, amphibians, fish). We are going to look at one animal to learn about life stages.
- Show picture of frog eggs and ask if they know what it is. After a few guesses, tell them they are frog eggs. Frogs go through different life stages like many pond dwellers.
- Ask if they know what a baby frog looks like – a tadpole! (no legs, no arms, has gills). Show tadpole picture.
- Have the kids pretend to be tadpoles swimming around with their arms glued to their sides.
- What happens next? Hind legs. Have the kids pretend to be a maturing tadpole with hindlegs but no arms. Show picture.
- What happens next? Front legs. Now they are starting to look like an adult frog. Have them hop around. Show picture.
- Lastly, their tail will shrink until it is gone. Show diagram of frog life cycle.
- Show the picture of the tiger salamander tadpole. Have them guess what it will change into. Then show picture of adult salamander.
- Note: They may ask the difference between a frog and a toad, you can explain:
 - 1. Frogs have longer back legs and JUMP while toads have shorter back legs and either RUN or HOP.
 - 2. Frogs spend more of their time in or near water. Toads travel farther from water.
 - 3. Frogs have smooth slimy skin. Toads have dryer skin with bumps (warts). These will NOT give you warts. The big bumps behind their eyes can squirt out poison if something tries to eat them.

How far can you jump?

- Now that we are adult frogs with both front and back legs, we can hop around on land. Let's see just how far a frog can jump.
- Lay out the jump rope. Show them how far a flea can jump, vs a cricket, vs a grasshopper vs a frog.
- Remind them that these animals are very small so these are VERY FAR distances compared to their body size.
- Let each child try jumping to compare to these animals.
- Some frogs can jump up to 10 times their length. Have the parents help the kids measure their height and measure how far they would need to jump to jump 10 times their height. (You can have the child lie on the ground and measure their length with your feet and then multiply by 10 and pace out the distance.)
- Share fun facts as they go:

Animal	Jumping Distance (ft)	Time body size	Human Equivalent
Flea	3	220	Jumping the length of the Eiffel Tower
Cricket	4		

Grasshopper	5		
Bullfrog	6	10	Jumping the length of a semi-truck.
Bobcat	10		

Conclusion

As we learned, ponds are busier than they first appear – they are bursting with life!

Ask the kids:

- *Do you think ponds might be fun to explore?*
- *What do you think you might find?*
- *Why are ponds important? (insects and amphibians need water to lay eggs, insects are food for birds and other animals).*

Next time you are by a pond, look closely and I am sure who will find it to be full of life!

Thank everyone for coming to the program and remind them of the other stations available. Encourage kids and parents to come to other events and activities and remind the parents of upcoming programs with the Natural Areas.

4: STEWARDSHIP CRAFT – Pond Exploration (Dip Netting and Cattail Dissection)

1 MN, 2 MNAs

This is a free-flow activity so kids can come and go as they please.

Ponds may not look it, but they are full of life. See what you can discover!

Steps:

1. Welcome kids and ask if they would like to either look for pond life or dissect a cattail.

Dip Netting:

2. Show them how to look in the trays for small insect larva.
3. Remind them not to take the animals out of the water as they need water to survive.
4. Show them how to use a hand lenses or microscope to see the insects up close.
5. Encourage them to use dip nets to find more insects.

Cattails:

6. Show them how to dissect the cattail to see the staw-like stem and seeds (like a hotdog).
7. Ask what they think these might be good for (straw to get air when under water, seeds are soft and used by birds in their nests).
8. Remind them why it is important to keep our ponds and rivers clean so we don't destroy these animals' homes. WE drink this water too!
9. Once they are finished, give them a sticker and thank them for coming.

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Written by Emily Olivio, Community Educator, 2016
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