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Wandering Whatcom Falls

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Wandering Whatcom Falls

*An interactive exploration of
ecosystems and connection*

WANDERING WHATCOM FALLS INFORMATION:

What is this? Who made it?

My name is Hailey Schmidt and I am a graduating student at Western Washington University studying Environmental Science. I created this interactive loop for Whatcom Falls as my senior capstone for the Honors Program. I love to be outside, watch the birds, and soak up the sun. I am passionate about how nature can nurture youth, and how our natural world provides lessons and resources for growth and development. I am also interested in connecting youth with their environment to build a relationship of respect, care, and reciprocity with the land. This project is a synthesis of my interests in working with youth, my love for outdoor spaces, and my environmental knowledge. I hope that you enjoy this activity!

How does this work?

Along this map, there are 7 checkpoints. Each checkpoint will have a cache containing activity instructions, materials and directions to the next checkpoint and cache.

For each activity there will be an introduction to read, an activity to do, and then discussion topics and questions.

To begin, start at the first checkpoint by finding the cache. Have fun with the activity and take your time, then follow the instructions to the next checkpoint and cache. You may take the cache wherever you please (within reason) while you do the activity, but please make sure to return all materials and instructions to the cache, and hide the container where you originally found it.

What do you need to bring?

Most items needed for the activities are included in the caches. The only item needed for an activity that is not already provided is a full water bottle, separate from your drinking water. Some other things I recommend (but aren't necessary) are a backpack, snacks and water, layers and a raincoat – depending on the weather – and a clipboard or another hard writing surface.

Travel information:

This activity begins at the parking lot off of Silver Beach Road.

From Interstate: From I-5, take exit 253 to Lakeway Drive. Continue east on Lakeway Drive for just under 1.5 miles. Turn left onto Silver Beach Rd and follow that into the park.

Bus information: The park can also be accessed using WTA (Whatcom Transit Authority) buses 16, 40, 41, or 11 Geneva

Safety info:

Please make sure that any kids participating in this activity are accompanied by an adult.

Please follow the up-to-date Covid Guidelines while participating in these activities.

Accessibility:

The loop is about .60 miles long. The majority of the loop is a gravel path, some of it is dirt. Most of the loop is flat, but there is one staircase about halfway through which is noted on the map and directions.

Directions to First Cache:

Begin at the playground by the Silver Beach Road parking lot (enter from Lakeway Drive). The first cache is located behind the playground in the trunk of the branched tree. The tree is located about 30 feet from the square picnic table and grill near the playground. The tree is also near the sheltered picnic area. The container is clear plastic.

Directions From Checkpoint 1→ 2

Once you're ready to move on from the first checkpoint, find the beginning of the paved path towards Whatcom Falls. It is located across the parking lot from the playground. At the very beginning of the trail, there will be a map on your left that you can view. Continue walking down the path until you see the first trash can (it will be on your left). The next checkpoint is at this trash can.

Cache Location Description

To get to the cache from the trash can, continue walking past the trash can on the dirt. Keep going until you reach the tree and bush closest to the far fence. The cache is located at the base of the tree and hidden by the bush.

Directions From Checkpoint 2→ 3

Continue walking along the path. Cross the stone bridge and admire the falls! Would you describe the falls as having a lot of water or a little? At the end of the bridge, right in front of you is a large concrete block. Your next activity is there.

Cache Location Description

To get to the cache, take the short steps on the right after the bridge and walk up to the base of the concrete block. The cache is hidden near the base on the left side. You can take the cache to the top of the concrete block to do the activity, but return the cache once you are done.

Directions From Checkpoint 3→ 4

Take the path heading right after you cross the bridge. You will know if you are on the right path if the creek is below you on your right side as you are walking. Continue walking until you reach the bottom of a staircase. Your next activity will be near the water by the bottom of the stairs. Enjoy the trees and shrubs along this stretch!

Cache Location Description

At the base of the stairs on your right there is a hollowed out log. The cache is inside of the hollowed log.

Directions From Checkpoint 4→ 5

Now continue up the stairs. At the top of the stairs, directly across the path, you'll see a tree with exposed roots. Your next activity is here!

Cache Location Description

Look under some of the exposed roots coming from the left tree. The cache is tucked under the roots in a yogurt container.

Directions From Checkpoint 5→ 6

From the top of the stairs, continue on the path towards the right. You will continue on this path until the first intersection that you see. At this intersection, there will be a sign in front of you with an arrow pointing right, towards the Derby Pond. Take a right at this intersection and head towards the derby pond. Your next checkpoint is along this stretch between the intersection and the derby pond.

Cache Location Description

Look for a tree with a broken trunk and a rock at its base on the left side of the trail. It is across from a big flat rock that is on the trail. If you pass a trail splitting off to the left that starts with a boardwalk, you have gone too far. The cache is behind the rock tucked under the tree trunk in a sour cream container.

Directions From Checkpoint 6→ 7

Now continue down the path until you reach the derby pond. Once you reach the pond, you should see a bench nearby overlooking the water. Your last activity is here!

Cache Location Description

Right behind the bench there is a little grove of trees and shrubs. The cache is in this grove to the right of the log on top of a rock and hidden by grasses.

After finishing this activity, you can continue on the path, cross the small footbridge, and continue on the paved road back to the parking lot. If you still have time and energy, there are many more fun paths to explore! If you're all tuckered out, you can always come back again.

MAP



Checkpoint 1: Welcome!!!!

Hello there! Welcome to Whatcom Falls Park and the Wandering Whatcom Falls activity. Along this map there are 7 checkpoints (including this one). Each checkpoint will have a cache containing activity instructions, materials and directions to the next checkpoint and cache. In each cache there is also a small notebook and writing utensil. This notebook can be used to make observations, sketches, or any other notes you would like to leave in the cache for other groups to read and create connections.

Land Acknowledgment:

Before we begin our activities, let's acknowledge the land we're exploring, learning from, and playing on. The original stewards who continue to take care of this land are the Nooksack people. As you spend time in this area, remember and practice gratitude for the endless care for the land by our Indigenous neighbors. It is important to continue to respect and honor the land, and listen to those who have occupied this land forever.

Checkpoint 1: Concrete Jungle

Intro To Checkpoint: You're near a parking lot! Tell me what you know about parking lots. What are some observations you can make about the parking lot? What are you standing on? What is the surface like?

Activity Instructions:

1. Find some water you brought with you. Careful not to use the water you brought with you to drink.
2. Pour water on the different parking lot surfaces such as concrete and blacktop. Observe how the water reacts on different surfaces.
 - a. What does the water do on these surfaces? Does it sink in or does it sit on the surface?
 - b. Where does this water go?
 - c. What might it carry?
3. Next, find some patches of dirt, moss, or other vegetation. Pour water on these surfaces. How does the water act compared to the other surfaces?
 - a. What does the water do on these surfaces? Does it sink in or does it sit on the surface?
 - b. Where does this water go?
 - c. What might it carry?

Did You Know?

Water that washes down the street and through gutters ultimately ends up in our lakes, our streams, and Bellingham Bay. If there are harmful things such as oil or chemicals on these surfaces, they often wash down into the bay as well, which can hurt things that live in the water. When water hits a surface like soil or vegetation, the water sinks in and is taken up by plants. The soil can often work to remove these pollutants or reduce their harm better than water can.

Reflection Questions:

- If there was a rainstorm, and a lot of water was hitting these surfaces, what do you think might happen on these different surfaces?
- Adults, if you see oil or other things that could be carried into the water stream with a negative effect, point them out to your kid and ask what they think may happen when water washes them elsewhere.
- How much of Bellingham is a man made surface? Why might open spaces like backyards, parks, and other places with plants and dirt be important?

Checkpoint 2: Leave No Trace!

Intro To Checkpoint: So, you've found yourself by a trash can. You're probably thinking "stinkyyyyy, what am I doing here??" We're going to pick up some trash! We all leave things behind when we move through our environment. Sometimes these things can hurt the plants and animals around us.

It is important when we are outside (in our backyard, a park, or the forest) to work on leaving a place better than when we found it. This can help keep places healthy and allow other people to enjoy it as well. One way that we can keep places healthy is to follow Leave No Trace principles. There are 7 principles total- here are 4 that are important for Whatcom Falls and other parks:

1. Dispose of waste properly
2. Stay on the trail
3. Respect wildlife
4. Respect others

Discuss what these principles mean and how they can keep a place healthy and happy for everyone – animals, plants, humans, etc.

Activity Instructions:

*Safety note for adults: for this activity you includes picking up trash. Prepare your kid with whatever makes you feel safest to pick up garbage (gloves, bags, etc.), and inform them on what can be picked up and what should not. Only pick up what you feel comfortable with. In the cache, there are disposable gloves you can use. Please only take 1 per person!

1. Spin in a very slow circle. Can you see any trash from where you're standing?
2. Now walk in a bigger circle. How about now, can you see any trash?
3. If you see any trash, pick it up and throw it in the trash can.
4. Throughout your day at the park, pick up any trash that you might see. You can keep a tally on a piece of notebook paper (feel free to take some from the cache), and see how many pieces you find by the end of the activity. Make sure all pieces of trash make it into a trash can!

Reflection Questions:

- Can you name 3 ways that you can leave a place better than you found it?
- How does picking up trash make you feel? Does it make you feel helpful?
- What are some reasons that we might want to pick up trash?
- What are some ways you can prevent trash from ending up outside? What do you know about reduce, re-use, recycle?

Check Point 3: Patterns in Nature

Intro To Checkpoint: There are lots of patterns in nature! What are some patterns you can think of? You are going to look at patterns and do an art project for this activity.

Activity Instructions:

1. Collect some different leaves from the ground. Try to find some that are already on the ground.
 - a. If you cannot find the leaves you want on the ground, don't take more than one from each tree. Make sure you ask permission from the tree and give it a big THANK YOU! (if it's a bigger tree, you can give it a hug! If it is smaller, you can give a branch a little "handshake".)
2. Place a leaf underneath a piece of paper, and color smoothly over the top with a crayon. You should be able to see the patterns of the leaf as you color, there is an example in the notebook.
3. Do this with your other leaves as well, either on the same or different pieces of paper.
4. Compare your leaf patterns. Are they similar? Are they different?
5. Use the tree guide if you would like to look up what kind of leaves you collected.

Did You Know?

Nature is not wasteful, and these patterns are commonly repeated because they are efficient. These patterns work well, so they are used again and again in different ways.

Reflection Questions:

- Can you think of some other things that are similar to the leaf patterns?
 - Ideas: fingers branching from hands, veins in our bodies, roots and branches, rivers...
- Can you think of some other shapes or patterns in nature?
 - Ideas: Hexagons can be seen in snowflakes and honey comb
- Do you know of any nature patterns that have been mimicked by humans?
 - Ideas: wings for planes

Checkpoint 4: Nature Therapy/Mindfulness Activity

Intro to checkpoint: Sometimes our emotions can get overwhelming. Being outside and thinking about our senses can be a helpful way to calm down. What are some emotions that you might need to calm down from?

Activity Instructions: *this will be guided by your adult*

1. Find a spot that you like- maybe by the water, maybe where you can hear the birds, your choice! When you find a spot, stand tall like a tree and take a few deep breaths.
2. Adult: Ask your kid to name 4 things that they see.
3. Adult: Ask your kid to close their eyes (if they feel comfortable) and ask them to tune into their hearing and name 3 things that they can hear.
4. Adult: Ask your kid to continue with their eyes closed and next tune into their sense of smell. Ask them to name 2 things that they can smell.
5. Adult: Encourage your kid to take a few deep breaths with their eyes still closed, then ask them to open their eyes.
6. Adult: have your kid find a small natural object, maybe a rock or a stick. Ask them to use all of their senses (except maybe taste!) to observe the entirety of it. Encourage them to observe it in detail.
7. If you would like, draw a picture of your object and try to include all of the things you noticed about it OR write what you noticed.

Did You Know?

Being in the forest is really good for your health. Trees release compounds called phytoncides into the air- these compounds help reduce stress, maintain focus, increase energy and boost your mood. You only need to spend 20 minutes in the forest for it to begin helping you!

Reflection Questions:

- How did that activity make you feel? Do you feel more calm?
- What sense did you notice the most in? Was closing your eyes helpful to tune into the other senses?
- Was there anything new or unusual that you were able to notice?

Checkpoint 5: Trees and Communication!

Intro to checkpoint:

Did you know that trees communicate? Trees can talk to one another, kind of like you and me! How do you *communicate*? What are some important things to be able to communicate? (when you're hungry, thirsty, tired, sick?)

Activity Instructions:

1. Trees communicate through mycorrhiza (my-coor-eye-za) and phytoncides (which were introduced earlier). Mycorrhiza is a mutual relationship between fungi (mushrooms are another type of fungi!) and tree roots. The tree roots provide the fungi with sugars for food, and the fungi finds nutrients and water for the tree. The fungi also connects the roots of one tree to the roots of many others. This allows trees to send signals through the roots to each other. Mycorrhiza send messages through the roots, and phytoncides send messages through the air. If one tree is being attacked by something, it can send messages to other trees to set up more defense mechanisms.
2. Look at the tree's exposed roots. What do they look like? Do you think you see any of the fungi attached to the roots? It would look like small white strings hanging from the roots. Here is an example of what it looks like underground.



3. Think about how ALLLLL of the trees you see have this many roots or more underground. Do you think they are tangled together? Does this help them communicate? Draw what you think all the connected tree roots look like underground.
4. Find a tree and whisper it a secret message. Maybe this message will be passed to the other trees!

Reflection Questions:

- What are some similarities and differences between communication in trees and humans?
- Why is communication important?
- Do you know any other forms of communication that might be taking place around us? (insects, animals, birds etc.)

Checkpoint 6: Birds!

Intro to checkpoint: When you close your eyes, and focus on your hearing, what do you hear? Most likely, birds!

Activity Instructions:

For this activity, you are going to step into the shoes of an *ornithologist*- that is a fancy word for “bird scientist”. Feel free to use the binoculars and bird guide in the cache, but be sure to return them.

1. First, find a bird near you- choose one that you really like.
2. Follow the bird with your eyes (and your feet if you can) remember to be quiet and slow so that they don't fly away. Maybe give it a name like “Sally” or “Bob”. Be creative!
3. Look at the colors, size, and shape. Observe its behavior. Is it flying, sitting on a branch, or on the ground? How does it move? Does it look like it is eating?
4. Once it has flown away, look at the list of birds and identify it. What kind of bird did you follow? If you have trouble identifying your bird, you can try looking for it later on www.rainieraudubon.org/commonbirds1.htm
5. If you want to keep observing birds, try mimicking a bird! Observe it's behavior, and try to make yourself look and act like the bird.
6. If you are having trouble spotting a bird with your eyes, observe the noises they are making. Can you mimic any of the songs or calls? What do you imagine they are saying? Make up a conversation that you think two birds might have.

Reflection Questions:

- Did you identify a bird? What kind of bird was it?
- What are some behaviors that you observed? Why do you think the bird was doing this?
- Did the birds do anything that you also do?

Did You Know?

The state bird of Washington is the American Goldfinch!



Checkpoint 7: Wrap up + Connections

Intro to Checkpoint: So now you have found yourself at the Derby Pond. Take a moment to observe your surroundings. What do you see? I hope you get to see some ducks! This last checkpoint is a place to reflect on the activities. Talk with your adult and/or companions and discuss these reflection questions.

Reflection Questions:

- What connections can you make between the activities you did here and the place you live? Are there similarities between where you live and the Whatcom Falls area?
- Do you have a favorite outdoor place? Do you/can you use this as a place to express your emotions and energy?
- If this activity were to take place at the beach, what kind of birds, animals, and plants might you see? How might they be different and why?
- Did you find more pieces of trash? Did you notice any common types of trash?
- Remember back to our senses activity. What differences do you notice in this location? Different smells, noises and natural objects?
- What is one thing from this activity that you want to learn more about?