

Wolf Creek – Letchworth State Park

By Liliana

If you find a rock in Wolf Creek, it might be a smooth, flat rock that has a little waterfall flowing over it. When you touch it, it might tickle the tips of your fingers and cool you off from the difficult hike you've taken to get there. Look over the bridge at Wolf Creek and you might find little ruffles of water splash together once they fall over the small, glowing waterfall. The water continues to fall over bigger and bigger waterfalls. When it falls over the biggest waterfall, it meets the Genesee River. Wolf Creek is a tributary of the Genesee River. A tributary is when a stream or creek feed into a river.

Waterfalls are made when the elevation is higher and the water needs to go down. When the water dives into the creek, it forms a plunge pool. The pressure from a waterfall pushes against the bed rock and erodes a hole called a plunge pool. Once the water hits the plunge pool, it splashes back up at the soft rock and erodes that. This is called undermining. The soft rock is under harder rock and the hard rock takes longer to erode so it makes a ledge. Over the years, the waterfall will move back and get higher.

So, what rock will you find?

To Make a Waterfall

*Slow, misty water
Rocky cliffs caving in
Silky, rapid water
All come together
To make a waterfall*





The Time

*Fog surfing the sky
Sun shining on
Crystal clear water
Water crashing the dirt
Eating the rock walls
Rocks waiting for
The right time to fall
Taking pieces away*

Tea Table – Letchworth State Park

By Nadia

If you find a rock in Tea Table in Letchworth Park, it might be a gigantic rock or a puny rock that has fallen from a nearby waterfall or the gorge wall. Tea Table overlooks the gigantic gorge. The mighty Genesee River flows through the gorge.

Over the years, the river has eroded the gorge walls. Moving water causes it to erode. The water eats the rocks, dirt, and tree roots. It takes time for the rocks and trees to fall. I think of the walls like the game Jenga. You want to pull out a block without making the whole thing fall. Your hand would be like the water and the blocks are like the gorge walls.

In the gorge walls, you can see layers or rock called strata. You might also see the waterfall at Wolf Creek. The waterfall is 225 feet high. It is called a “hidden gem”.

So, what rock will you find?

Mt. Morris Dam

By Keniya

If you find a rock at the north end of Letchworth State Park, you are standing right by the Mt. Morris dam. The Mt. Morris dam is a man-made structure built to control all that water. The dam was completed in 1952. When it was finished it was 245 feet high. It can hold up to 98 billion gallons of water, however the whole thing only filled up once in 1972.

You may ask how the dam controls the river. Well, I will tell you. It stops some of the water by trapping it. When the water slows down the sediment settles to the bottom of the dam. Layers of sediment build up. If you look around you'll see big machines moving those piles of sediment. Can you believe the river was going to wash Rochester right out before the dam was built? There was so much water. Because of the dam, we can control the water to make sure Rochester doesn't flood.

The dam helps control the river, but is also makes places right after the dam erode very fast, like Cuylerville. The reason why there is so much erosion in places right after the dam is because the water is very clean. The dam slows water down so the sediment drops. When water comes out of the dam it is faster. The first place after the dam is Cuylerville. Did I mention Cuylerville is the fastest eroding place on the Genesee River? I wonder why (ha, ha). Well, of course it's because of the dam.

So, what rock will you find?



Just Right

*Wind blowing
Not too cold, not too hot
Just right
Glimmering water
Bouncing the sun around
Ruling water
Perfect waterfall day*

Cuylerville, NY

By Anyssa

If you find a rock at Cuylerville, it might be a rock made of sand. At Cuylerville you can see erosion and deposition. If you look at the inside of the meander along the Genesee River you will see sand, sticks, and mud that the river drops. Did you know that Cuylerville is the fastest eroding meander along the Genesee River? This is because Mt. Morris Dam is directly south of Cuylerville. When the river hits the dam wall it drops its sediment. When the dam opens and the river water flows through, the water moves faster because the water doesn't have any sediment in it. So when the water reaches Cuylerville the water is lighter and faster. Meanders, like the one in Cuylerville, can form into oxbow lakes. There isn't an oxbow lake in Cuylerville yet. But it could happen in the future.

Did you know there is a road that was taken out by the Genesee River? The meander became deeper and deeper and eventually forced the road to erode. So a new road had to be built in a different place.

There will be a rock for everyone. So what rock will you find?



River

Secretive sparkling water

Splashing along

Wild currents

Curved silence

Clinks as it hits

Strata

Wondrous swirling splashes

Fast bumpy flowing water

Rages

Towards the mouth

Crash, splash, smack

Meander

By Zaria

If you find a rock on the outside of a meander, that rock is going through erosion. If you find a rock on the inside of a meander, that rock is going through deposition. The rocks on the outside are eroding faster because the water is going faster when it goes around the bend. When the water is going faster, it eats the rock away. When the water is going slower, the rocks will drop. A meander is a bend in the river.

I will tell you two examples of where you can find a meander along the Genesee River: Cuylerville, NY and Great Bend in Letchworth State Park. Cuylerville has the biggest meander along the Genesee River.

Some people pile rocks and build cement walls to stop erosion. If there is a bridge and the legs of the bridge are under water, they might pile rocks so the water won't cause erosion.

So, what rock will you find?



Waterfall

*Feels like raindrops
With pinches of
Goodness
Wind is like the fan
That will move the
mist
Touches your face
Like a warm sprinkle*



Geneseo, NY

By Maeve

If you found a rock at Geneseo and it is a big rock, it may have helped fill in the lake that was there. Not with water, like most lakes, but with rocks, sediment, and till. This lake used to be a freshwater Finger Lake. The last glacier that was in our area formed this Finger Lake. After the glacier receded, the Genesee River ran through here and dumped its till in the lake that was there. The river eroded the side of the river collecting till. The last glacier also made a moraine. The moraine helped create the lake. But that moraine made the river flow into the lake. There is also salt in this area. But that's another story.

So, what rock will you find?

Water Everywhere

*Water there and water here
But none of it to drink
Just tune your ears to the
Sound of water
Clear and present*

Glaciers

By Tallulah

If you find a rock that is mixed with till and sediment, it may be a rock carried here by a glacier. A glacier could also make a round rock like a sphere. These rocks came from the most recent glacier 27,000 years ago. The glacier was called the Wisconsin Glacier. It's true! Glaciers push on things and pick up things and drop things.

Glaciers are so humungous. They change the land and dig out kettle lakes. That's how strong they are. For example, at Mendon Ponds Park there is a kettle lake called Devil's Bathtub. Because glaciers are such huge sheets of ice, when glaciers reach a warm point they start to melt and make streams and rivers that are full of melted water. When glaciers melt they can change the paths of rivers. For example, the Genesee River used to flow into Irondequoit Bay. The glacier dumped piles of sediment at Mendon Ponds Park. The big hills are called moraines. They are made of huge piles of till. Other moraines in our area are Cobbs Hill and Pinnacle Hill. The moraines at Mendon Ponds Park forced the river to take another way. Now the mouth of the Genesee River is Lake Ontario.

So what rock will you find?



Waterfall

*Crystal clear waterfall
Shins in the sun
Drops and drops
Winding over rocks
Falling and shining
Mist sprinkles on me
As it twirls down
I feel surrounded*

Mendon Ponds

By Pahz

If you find a rock in Mendon Ponds you could find a huge rock, a small rock, a short rock, or a tall rock. The reason you can find so many rocks is because there used to be a 2 mile tall sheet of ice covering the area (a glacier). That's taller than the tallest skyscraper! The glacier dug out the ground and dropped sediment (soil and rocks) to form hills. The water melted and fell into the ditches making the ponds, which are kettle lakes. A kettle lake is a lake with moraines (hills of dirt and rocks) around it to make the lake look like a kettle. A kettle lake looks like a bowl.

There are three types of rock you would find. They are metamorphic, igneous and sedimentary. A sedimentary rock is a rock that had a bunch of rocks piling on one another forming one rock. You can find fossils in sedimentary rocks. Igneous rocks were formed down in the middle of the earth and got out by a volcano exploding and pushing it out. If you find an igneous rock around here it was probably moved here by a glacier years ago. Metamorphic rocks are rocks that have changed from sedimentary or igneous rocks if there is heat, time, and pressure. You are most likely going to find a sedimentary rock in Mendon Ponds because that's the main rock in this area.

If you're wondering how I know there was a glacier in this area, well, I'll tell you. You'll find moraines left by the dirt and rock in the glacier. You'll also find a bunch of rocks that are different left by the rocks that the glacier carried. You'll see sandy soil called till that the glacier left. You'll also see kettle lakes with moraines around them. The hills are like roller coasters. They go up and down then up and down. Ha, there's my proof!

Mendon Ponds is roughly about 27,000 years old. That's when the last glacier happened. I hope you learned a lot about Mendon Ponds.

So, what rock will you find?



Water Fall Down Down

Powerfall

Shiny

Water pouring down off a ginormous cliff

Crashing

Into the deep depths below

Forming a plunge pool

Moraines and Kettle Lakes

By Jesse

If you find a rock in a kettle lake or moraine, it's probably a glacial erratic. Glacial erratics in our area are metamorphic or igneous rocks. These rocks were not formed in our area. How did they get here? They got here from the last glacier that covered our area about 27,000 years ago. A glacier is a gigantic sheet of ice that can be one mile high.

What other evidence do scientists have that a glacier was here? Cobbs Hill, Pinnacle Hill, and the hills at Mendon Ponds Park were created by the glacier. Over thousands of years the glacier dropped huge amounts of till as it melted and slid across the earth. The till formed moraines. Moraines are long piles of till left behind from the edges of the glaciers. If you go to Mendon Ponds Park and you go by the big body of water, which is named Devil's Bathtub, it is called a kettle lake. Kettle lakes are another piece of evidence that a glacier was here 20,000 years ago. A kettle lake is a very deep hole shaped like a bowl. It is formed by the glacier building up the land around the hole. Over many years the hole fills up from rain.

So, what kind of rock will you find?



Magic Waterfall

*Flowing fast
Bumpy undermining
Crashing falls
Falling down
Rocky shore beneath
me
Magic mist
Touches my face
Makes the world
All around me
Smooth*

Sedimentary Rock

By Trysha

If you find a rock that has a fossil imprinted inside, you have found a sedimentary rock. This kind of rock is formed by bits of bones, rocks, and dirt, which is called sediment. The layers are squashed and packed together in water over a very long, lazy time.

If you find a rock along the glorious Genesee River, it is probably a sedimentary rock. Sedimentary rocks are the most common rocks in this area. Do you want to know why they are the most common? This area used to be covered by a warm sea millions of years ago. There was a lot of water, dirt, and sand. The water pressured the dirt and it turned to rock. When plants and sea creatures died, they also got into the dirt and sand and got pressure. That's why you can find fossils in sedimentary rocks. You might find fossils of trilobites, crinoids, eurypterids, or plants. Over the years, when pieces of sedimentary rock break apart, they form other sedimentary rocks. Some sedimentary rocks were formed from when the glaciers carried sediment here.

You can also find sedimentary rock in the jagged strata along the Genesee River. Strata are layers of rock formed by the river smashing and crashing on it. You can see strata because the river has carved into the land over a long time, millions of years. It's still happening.

So, what rock will you find?

Power

Powerful

Rough

Fast

Water hitting jagged rocks

Smashing

Breaking them

Over time

Making a light

Pit of joy



Igneous Rock

By Griffin

If you find a humungous rock in Fallbrook, near Geneseo, that is darkish and has moss all over it, you have found an igneous rock! It's very rare to find an igneous rock away from a volcano. This rock came from Canada. 27,000 years ago the last glacier pushed the rock that far!

Igneous rocks are formed by the mighty volcanoes that shoot out their lava. The lava goes into the cracks of the earth and cools down and hardens. Millions of years ago, there were many volcanoes, so they made igneous rocks.

There are three main types of rocks - sedimentary, igneous, and metamorphic. Igneous rocks can be pitch black, smooth, white, rough, have black dots, or shine in the sunlight like a glassy light bulb. Granite and other rocks made in the core of the earth are igneous rocks. Some igneous rocks are Obsidian, Syenite, and Rhyoite. Some igneous rocks can turn into metamorphic rocks if there is enough heat, pressure, and time. I would be very surprised if you found an igneous rock fossil. They don't even exist! You only find fossils in sedimentary rocks.

What rock will you find?



Beautiful, Powerful Waterfall

*Water is gushing down
Mist is blowing in my face
I stand on the foot of a
Beautiful, powerful
Waterfall*

Waterfall

*Running to the supreme drop
Falling into the glazing
sparkling water
An eye dropping view
Of opportunity*



Metamorphic Rock

By Trevor

If you find a rock that is tough and has crystals, it's probably a metamorphic rock. Metamorphic rocks are igneous and sedimentary rocks that have changed over time into a new rock. Heat, time, and pressure cause this to happen. Metamorphic rocks are usually harder than sedimentary rocks. Have you heard of a rock called marble? Marble is made from limestone. Limestone is in the earth's ground until heat, time, and pressure change it into marble.

Most rocks in our area and around the world are sedimentary rocks. However, if you find metamorphic rocks in Rochester, they might have come from a glacier. Glaciers were really big blocks of ice. Glaciers can be one mile high. The most recent glacier in our area was about 27,000 years ago. The glacier dropped off igneous and metamorphic rocks that it carried from Canada and other places.

So, what rock will you find?

Among the Falls

*Darkness surrounding me
Raging ripples
Blasting at rocks
Vigorous falls crashing
down
Misty powerful impact
Breathtaking
How strong can it get?*



High Falls, Rochester, NY

By John

If you find a smooth edge rock at High Falls in Rochester it may have gotten ground against the walls of strata. Look around. Over there! See it? It's a towering waterfall. The beautiful scenery is breathtaking, isn't it? When you stand at the bottom of High Falls you have to look up at a 90 degree angle to see the top of the falls.

How old do you think High Falls is? Look at the strata because strata help tell how old a rock is. Strata are the rock layers you see on the gorge walls.

At the bottom of High Falls, you'll see a plunge pool. A plunge pool is formed when water smashes the bottom and gnaws away at the rock. Hey, that's almost the same as how a waterfall is formed. When water hits the plunge pool, it splashes back up and crashes the soft rock. It gnaws the soft rock away. The hard rock on top of soft rock is slower to erode. Over the years, the waterfall moves back because of erosion. Sooner or later there won't be any waterfall. How long do you think it will be before High Falls disappears?

So, what rock will you find?

Lower Falls, Rochester, NY

By Ella

If you find a rock at Lower Falls in Rochester, the rock may be big and flat or small and round. If you find a small and round rock you found a rock that has been eroded for years. And if you find a rock that is big and jagged, then you have found a bed rock. If you look around you'll see layers and layers of jagged, eroded, crumbling strata. Strata is created when a river erodes away making all different layers of rock. When the Genesee River used to be at the top of the strata the water kept eating away for millions of years! That's a long time and that is how that strata was created. Next to Lower Falls is a cave. Lower Falls is 100 feet high and 150 feet wide. You can tell how wide a landform is by looking at a topographical map. The tighter the lines the more steep the land is. The more spread apart the lines are the more gradual the land is. Can you believe that?

When you hike down on the trail to get to the falls you see some strata. On that strata you see one thick line of red strata. That line of strata is called Queenston Shale. Queenston Shale represents the Ordovician time period. Some animals that lived during that time period are jawless fish, trilobites, sea scorpions, and crinoids. Lower Falls has been here for 10,000 years. Over that period of time it has eroded over a mile. It is eroding only about 1-2 inches per year today. This is a lot slower than long ago. This is partly because the Mt. Morris Dam has decreased the water volume in the Genesee River. When the water flows over the waterfall and hits the plunge pool it splashes back up and erodes away the soft rock. This is called undermining.

So, what rock did you find?



Running River

*Rushing south to north
Rapidly before your eyes
Flowing between big and little rocks
Water's always moving
Flowing fast
Your eyes will widen as you watch
with greatness
Over bedrocks it bends and twists
On the shore people watch
As beautiful as it gets
Layers of rocks
Misty and wet
Sometimes makes a rainbow
Always running fast
Stories yet untold*

Salt

By Henry

If you find a rock, with a shiny white crystal, you may have found a rock from an ancient sea. What do you think it is? It is a salt crystal. This rock has been here for 248,000,000 years or more. The ancient sea it came from is called a warm sea. When this sea evaporated, the salt didn't evaporate and the salt crystals formed. This crystal went through all this time: Ordovician, Silurian, Devonian, Carboniferous, Permian, Triassic, Jurassic, Cretaceous, Palaeocene, Eocene, Oligocene, Miocene, Pliocene, and Pleistocene. Each time period is about 34,000,000 years.

About 492 million years ago North America was near the equator. This is because of continental drift. Continental drift is the way the continents move. In fact the other continents including North America were one big continent called Pangea.

Salt is found deep underground because layers of soil have covered the salt. You'll find a lot of salt in our area because we one of the warm seas. Now what do you think of your rock? What rock will you find?

Thunderfall

*Splash! Crash!
The water sends its
Fierce battle cry
Endless thunder
Pours down a cliff
Into the dark pool
Mist shoots up again,
Clouding all vision
Then flows through
Its endless glory*



Warm Seas

By Jada



River

*Rushing water
Falls from above
Flows
Never stops
Eating land
Until it's gone
Zigzagging
No leader
No caboose
There's something
That's lovely
River*

If you find a rock that has an impression of an animal or plant in it, you might have found a sedimentary rock with a fossil in it. It must be from the time periods when the warm seas were here! Do you know why there was a warm sea in our area? About 450 million years ago the continents were one big continent. The big continent was called Pangea. If you look at a world map you can see that the shapes of the continents actually fit together.

During this time our area was near the equator. The climate was warm and humid. It was a tropical environment with a variety of plants and animals. There were many warm seas in the area. Jawless fish, trilobites, and coral lived in and near the warm waters. The water was saltwater.

Did you know that you can find fossils in many places in Rochester? If you visit the Museum of the Earth in Ithaca you might take a hike near Taughanock Falls. There might be fossils in the strata along the gorge. If you visit Lower Falls in Rochester you might find fossils in the sedimentary rocks along the Genesee River. If you visit Oramel Hill Road which is south of Letchworth State Park you might find fossils along the Genesee River's banks.

During the warm seas some animals and plants died in the bottom the seas. Layers of sediment would cover the animals and plants over time. The sediment became hard as the seas dried up. The fossil is the impression of the animal or plant that died there long ago. If you go fossil hunting you might find the fossil of that animal or plant.

So, what rock or fossil will you find?