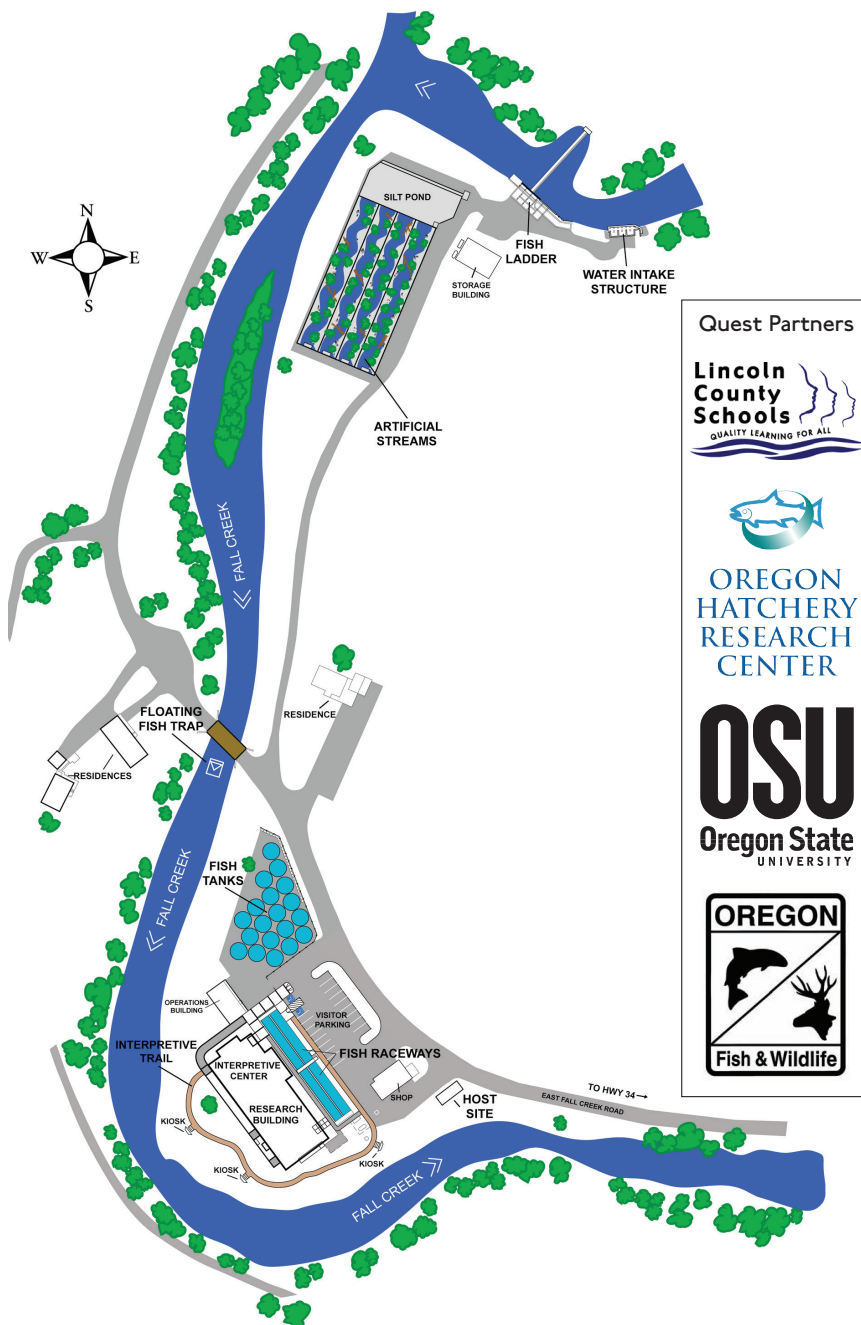


Oregon Hatchery Research Quest

Use this map to help you solve the following Quest!



Oregon Hatchery Research Quest

Established: 2008 by the eighth-grade class at Crestview Heights School, with help from their teachers, Terri Hanshumaker and Spencer Johnson, and OHRC education director Joseph O'Neil

Box Monitor: Joseph O'Neil

Driving directions:

From Hwy 101 in Waldport, drive east on Hwy 34 for 26.5 miles and turn left (north) onto East Fall Creek Road. Drive 2½ miles on Fall Creek Road to reach the



Oregon Hatchery Research Center. The main parking lot is in front of the large research/office building. While the Quest takes place entirely outdoors, there is an indoor Interpretive Center that you will likely want to see during your visit.

Follow the directions and collect the letter clues to fill the numbered squares on page 139. This Quest takes approximately 40 minutes to complete and travels over level terrain.



The goal of the Oregon Hatchery Research Center is to answer scientific questions related to fish recovery and hatchery programs, including the differences between wild and hatchery fish, and how to better manage those differences.

Start your Quest at the Interpretive Center. Find your position on the map, and notice the creek that runs next to the center. Take the second letter of its name and write it in square number 12.

From the parking lot, hang a right eastward and follow the road from whence you came. Walk down the road until you come to a tree that splits into two trees. It is on the creek's side, about ¼ mile down the road.

An old homestead used to sit here on the left. It was built around 1918. Some of the people who were born there are still alive today. To the edge of the clearing there are two apple trees that were planted by the people who used to live there. There are also walnut trees and a garden area across the creek. The early settlers would wade across the creek to tend to the garden on the other side of the creek.



Walking back to the OHRC buildings from the homestead site.

At the Homestead site sign, take the first letter of the first word on the sign and place that letter in square number 4.

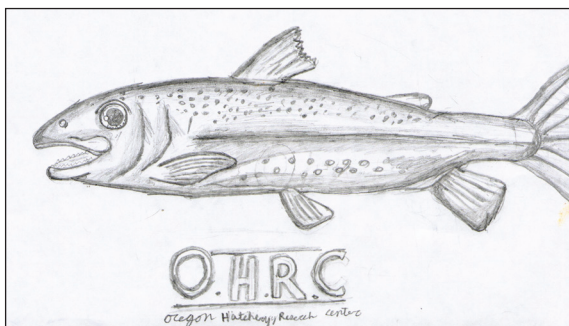
Now turn around and walk northwest on East Fall Creek Road, back toward the Interpretive Center. You will see red alder trees with moss on them all around you. Moss typically grows on the north side of the trees. On the hillside to your right, there are many blackberry bushes and wildflowers in the spring. In the creek to your left, there are also sword ferns and rocks. You are currently walking in the same direction as anadromous fish swim when they are ready to spawn. As you are walking toward the host site,

Did You Know?

“Anadromous” means to run upward, to swim upstream from the sea to spawn.

on the left side (southwest) of the road there is a big Douglas-fir tree with two big, orange “2’s” on it; this is a mile marker for the log truck drivers.

By the host site building, you will see a small wooden sign. Take the second letter of the first word. This letter is your clue that goes into square number 1.



Turn left outside the Research Building and go southwest, along the Interpretive Trail. The trail runs beside Fall Creek. The interpretive trail's purpose is to educate people about the environment. Things to notice: The licorice ferns growing on the trees, and four bat boxes along the trail. Stop and read the information in the kiosks for information about the wildlife in the area.

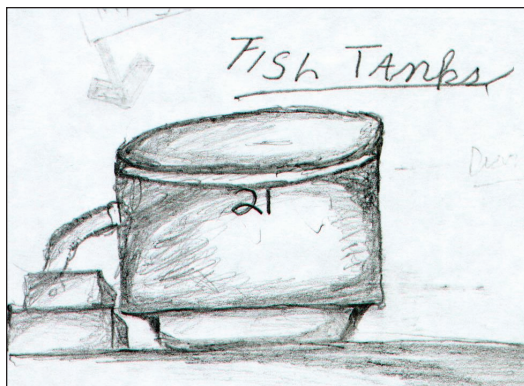
As you walk along, you will notice that there are numbers along the left side of the trail by the plants. If you go inside the interpretive center, there are brochures on the west wall under the exit sign. These brochures tell you about the trees and plants of the area.

As you pass the number 4, you will notice a small shelter to the left that has a sign underneath. Take a minute to read the sign. Now, look up and find the next clue. It is the letter that belongs in square 5.

Continue along the pathway between the two buildings to the front of the Interpretive Center. Here you will see four different fish raceways. Why are there four raceways? As you continue your Quest, you will discover the reason for this. The researchers at the hatchery use the raceways to combine different genes of different fish of the same species.

Look at the sign on the front of the fish food machine. The second-to-last letter of the second word is your clue. Place this letter in square 2.

Walk from the raceway to the green metal fence (north) surrounding the fish tanks. There are four groups of four tanks each. These four groups correspond with the four different raceways you just saw and the four artificial streams we will soon see ahead. The hatchery staff take one set of fish out of the artificial streams, place them in one set of tanks, and then place them in one raceway. This allows researchers to experiment on more than one group of fish at a time.



Follow the fence east until you get to the sign that has information on the tanks. Look at the title of the sign. Take the last letter of the second word and put it in the 10th square.

After reading the fish tank sign, turn right, to the north, and walk along the gravel road. You will soon come to a bridge that crosses Fall Creek. *Do not cross the bridge!* In

the creek you will see a big metal fish trap, floating in the water. The trap catches juvenile fish that swim downstream. The fish are identified by species and then released.

Looking low on the bridge on the upstream side, you will surely find a clue to put in squares 6 and 7.

Without crossing the bridge, walk down a gravel road (northeast) and see all the beautiful scenery. To the left, you can see where salmon spawn in the creek, marked by hatchery staff with orange rocks. The fish that spawn in Fall Creek are: cutthroat trout, steelhead, coho, and Chinook salmon. Wildlife is abundant in this area, including black bears and black-tailed deer.

A “Notice” sign on the vehicle swing gate contains information divine. What is the first letter of the second word on the sign? It is this letter that is your clue to place in square 11.

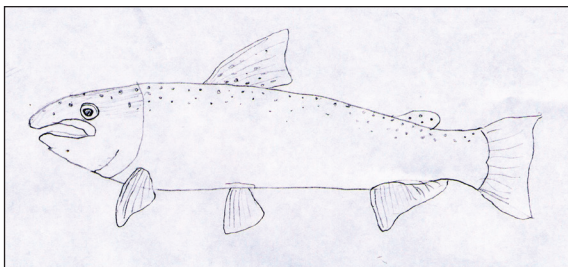
Look north and you will see the only place in the world where there are four artificial streams side by side. Notice the four cameras watching each stream. This helps researchers to study each stream without human presence.

The four flags around you indicate the four indigenous species being studied here: Chinook, steelhead, coho, and cutthroat. The water from the silt pond flows through these streams.

Did You Know?

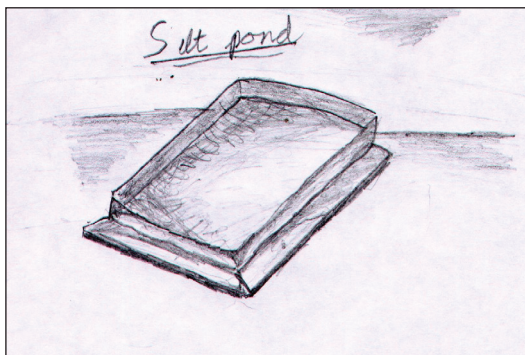
The term “indigenous” means being produced, growing, living, or occurring naturally in a particular region or environment.

Each stream has a letter.
The southeastern-most
stream is labeled with the
same letter that you need
to place in square 3.



Just past the artificial
stream lies the silt pond.
The silt pond works as
a natural filter for the
artificial streams. The water is 8 feet deep in the center and shallower at the sides.
Incoming water displaces the old water.

Now, go north to the end of the pond. Turn west and follow along the side. A final
turn to the left will lead you
to a cement block. It holds
the clue that belongs in
square 8.



Now follow the creek up-
stream toward the sound of
rushing water. The fish ladder
is where researchers take
genetic samples from the fish
that return to the hatchery.
The hatchery staff trap the
fish and allow only the wild
fish to proceed upstream. This is the only fish ladder in Oregon that is lamprey
friendly. Lampreys are an anadromous type of fish that look like an eel.

Special things to look at: waterfall, rocks, water running under the metal grates of
the fish ladder.

Look for the sign that describes the purpose of the fish ladder. Find the third letter
of the seventh word for the clue that fits in square 13.

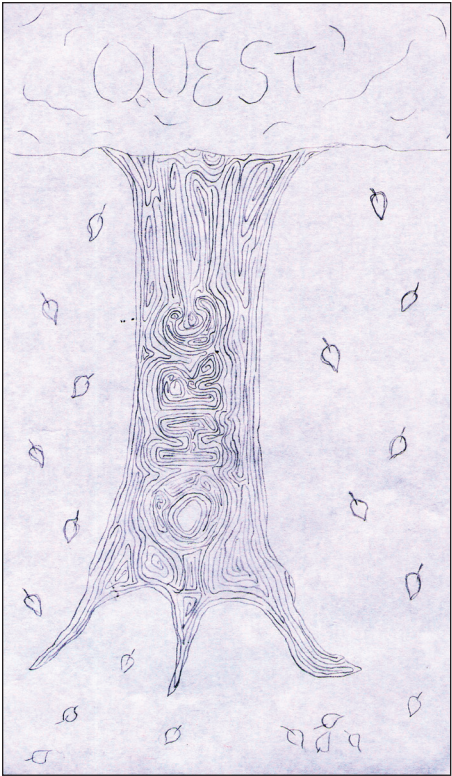
Walk from the fish ladder east to the big yellow crane. Look north at the waterfall
on the other side of the fish ladder.

The water-intake structure is screened to prevent unwanted fish and debris from
coming in. The intake structure takes in 20 cubic feet of water per second. This is
the maximum legal amount of water the Research Center is allowed to use. There
are 8 miles of pipe that run underground between the water-intake structure and

the Research Center. The pipes carry all the water that is used for the streams, tanks, raceways, and the research facility.

The large crane you see is for lifting the grate on the water-intake structure, in case it ever needs cleaning. The last letter of the crane's color is your clue for square 9.

Now turn and head back toward the Research Center. When you get to the artificial streams, find Penny's grave on your left. From here, use the clues you have collected to guide you to the location of the Quest Box!



1	2	3	4	5	6	7	8	9

10	11	12	13

Stamp page 208 of this book to record your find!