MUSEUM T NATURAL AND CULTURAL HISTORY

UO Campus Scavenger Hunt Clues and Walking Directions and Background Information

Welcome to the University of Oregon Campus! There are so many fun things to see and learn just by walking around campus. This scavenger hunt will take you around campus and challenge you to find some hallmarks of the University and some hidden gems. Each stop focuses on a significant item in the area, give your students the clue and see if they can find the item! Then, use the discussion questions and background information to learn more about the item and the area.

This is the complete teacher's guide to the scavenger hunt. It includes maps of the entire path between the mentioned stops, clues for finding the significant items at each stop, the answers for each clue, discussion questions about each significant item, and background information on each item. The intention of this guide is to allow you to plan your own experience depending on the grade level of your group, how long you have for the activity, and how involved you want your students to be. Some suggestions to tailor this activity to your needs are:

- Selecting which stops your students would be most interested in
- Selecting only certain discussion questions to address at each stop
- Choosing to use either use some of the discussion questions or share some background information.

At the bottom of this document is a copy of just the clues and the directions that can be used if you do not need the background information, and copies of just the clues, if you would like your students to check off the clues they answer.

The entire scavenger hunt takes roughly 120 minutes. If you are doing this as an activity while you wait for your program at the museum, make sure you adapt the amount of stops you make so that you have enough time to arrive back at the museum at your program start time. The campus maps linked below show each stop on this hunt.

<u>Map with all Stops</u>: This map shows the location on campus of each stop. It shows the location of the items that you cannot find on Google Maps. (I Will add in all the numbers at the very end just in case we cut any more stops)

Interactive Campus Map: Shows names of the buildings that cannot be seen on the map with all the stops

<u>Campus Google Maps</u>: Use the names of the buildings or areas each stop is located in from the "Map with All Stops" to estimate the time it would take to walk from one place to the other if you are not following our direct path.

The times in blue next to the location of each stop are the recommended time to spend at each stop. The "Walking Times" in between each stop are how long it should take to walk from one stop to the next, in the order the stops are listed here.

STOP 1: MUSEUM COURTYARD (Visit Time: 10 minutes)

CLUE: Find the Willamette Valley's visitor from outer space.



ANSWER: Replica of Willamette Meteorite, also called "Tamahnawus"

Students may touch the replica meteorite (no climbing please)

Discussion Questions: (Answers can be found on the informational sign, or in the background information below)

- This meteorite crashed into earth thousands of years ago. However, scientists believe it did not land originally in Oregon. How could the meteorite have been transported to the region? (*hint: it was not moved by people*)
- What do you think the weather was like during the Ice Age?
- What do you think would have happened to all the ice and snow when the climate warmed?
- What changes might the Missoula Floods (or large floods at the end of the ice age) have caused to the earth?

Optional Background Information For Discussion:

Toward the end of the last Ice Age, 20,000 – 15,000 years ago, glacial ice dammed the Clark Fork River in the Northern Rockies, in the region that is now Montana. It created glacial Lake Missoula, some 2,000 feet deep and 200 miles long. When the ice dam broke due to the warming climate, a 2,000-foot wall of water surged across Idaho, through eastern Washington, along the Columbia Gorge, and into the Willamette Valley! There is evidence that this process happened as many as 40 times over the course of 5,000 years. The Willamette Meteorite is believed to have traveled to the Willamette Valley on a glacier or with floodwaters during the Ice Age.

The meteorite was important to the Clackamas tribe for thousands of years before European Americans settled in Oregon. Members of the tribe would drink the water out of the weathered holes in it as medicine, and once a year they would hold ceremonies to wash and spiritually clean the meteorite.

In 1902, a farmer named Ellis Hughes stumbled across the meteorite in the field next to his land near West Linn. He secretly moved the meteorite to his property. When the Oregon Iron and Steel Company, learned the meteorite had been taken from their land, they filed a lawsuit to recover it.

The Oregon Iron and Steel Company was eventually awarded the meteorite and placed it on exhibit at the 1905 Lewis and Clark World's Fair in Portland, Oregon. In 1906, a philanthropist from New York, Mrs. William Dodge, purchased the meteorite from Oregon Iron and Steel for \$21,600 (\$790,008 today). She donated it to the American Museum of Natural History (AMNH) in New York, where it is still on display.

In recent years, the descendants of the Clackamas tribe, now part of the Confederated Tribes of the Grand Ronde, have tried to regain ownership of the meteorite. In 2000, AMNH and the Confederated Tribes of the Grand Ronde agreed that the meteorite will remain at the museum but will be available to tribal members for an annual ceremony. For more information on the Willamette Meteorite, visit <u>www.amnh.org/rose/meteorite_agreement.html</u>.

WALKING TIME TO STOP 2 (from the museum): 2 minutes

- Exit the courtyard to the north (toward 15th Ave)
- Turn west (left) and walk up 15th Ave toward Agate St and Hayward Field
- Cross the street towards Hayward Field at the Agate St and 15th Ave intersection. Hayward Field is on the left-hand side.

STOP 2: HAYWARD FIELD GATES (Visit Time <5 min)

CLUE: Find the gates to a stadium that has been hosting the U.S. Track and Field Olympic Trials since 1972.

ANSWER: Hayward Field Gates

Optional Background Information For Discussion:

Hayward Field has been the home of UO's track and field team since 1921! It was renovated to look the way it does today in 2018. The stadium hosted the Word Athletics Championships in 2022, which was the very first time the event had been

staged in the US. Twenty world records have been set/broken at Hayward Field. The venue has had the most "World's Greatest Athlete" titles, which is bestowed upon competitors in the decathlon. A total of 156 countries have sent competitors to Hayward Field.

WALKING TIME TO STOP 3 (from Hayward Field): 7-9 minutes

- Continue walking along 15th Avenue heading west (towards University St).
- The Rec Center fountain will be on your left.

STOP 3: REC CENTER FOUNTAIN (5 minutes)

CLUE: Find the fountain made out of one of the most common rock type in Oregon.

ANSWER: The Basalt Fountain

Discussion Questions:

- Why do you think there are so many volcanoes in Oregon?
- Can you name some common igneous rocks?
- Bonus Question: Do you know what type of basalt this is?

Optional Background Information for Discussion:

Basalt is a common igneous (volcanic) rock formed from the rapid cooling of lava that contains feldspar, pyroxene, olivine, quartz and mica. Basalt can form columns due to stress as the lava cools. The lava contracts as it cools, forming cracks. Once the crack develops it continues to grow. The growth is perpendicular to the surface of the flow. Most columns are straight with parallel sides and diameters from a few centimeters to three meters. Some columns are curved and vary in width. Columns can reach heights of 30 meters. Columnar





basalt is found all over Oregon and the rest of the world! It has also been spotted on other planets, such as Mars!

Oregon is known for its many volcanoes and exciting geologic history. Oregon volcanoes come from the subduction zone off the coast. A subduction zone is what happens when one tectonic plate (usually an ocean plate) slides underneath another tectonic plate. When the subducting plate is an Ocean plate, it is full of water. When the water reaches the magma in the mantle, it mixes together to create very explosive magma, which is how the cascade volcanoes formed.

WALKING TIME TO STOP 4 (from Rec Center): 1 minute

• Cross the street at the stop sign next to the statue (Onyx Street). The sculptures are in front of Straub Hall.

STOP 4: STRAUB QUAD SCULPTURES (<5 Minutes)

CLUE: Find a bronze statue of a depiction of a moon goddess.

ANSWER: Luna, a statue by Ellen Tykeson. Her work has been commissioned for public sites in Oregon and Southern California. She also has been selected for inclusion in the National Sculpture Society's annual show.



Optional Background Information for Discussion:

Luna is a sculpture of mythology's ancient moon goddess. She rules the night and the world of dreams. In mythology, she is linked with intuition and emotions. Ellen Tykeson is a native Oregonian and received her Masters of Fine Art from the University of Oregon. Her work can be found across the state and in Eugene. Recently, she created the metal panels that make up many of the bus stops in West Eugene.

WALKING TIME TO STOP 5 (from Luna Sculpture): 5-10 minutes

- Walk west from the statues to University St.(towards Gerlinger Hall).
- Cross University St. at the intersection with 15th Ave and University.
- Walk South on University until you reach the first set of stairs into the Cemetery, they will be on your right-hand side.
- Walk south through the cemetery (away from the center of campus) to find Angelina Ruggle's grave marker.

STOP 5: PIONEER CEMETERY (10 Minutes)

CLUE: Find the grave marker for Angelina Ruggles – it's not far. The marker is granite and is very clean. Look at the other markers around it. What other types of rock are used? What has happened to them?

ANSWER: There are three different kinds of rock used as headstones: granite, marble, and sandstone. The marble and sandstone have eroded and grown moss.



Discussion Questions:

- Can you find examples of marble headstones? What has happened to the words and pictures on the stone? (*Look for the headstone of Charles Lowry next to that of Angelina Ruggles*)
- How do the different rock types used to make the headstones feel?
- Why might the granite headstone be preferred to the sandstone headstone?

Optional Background Information for Discussion:

The Independent Order of Odd Fellows established the Pioneer Cemetery in 1873. Founded in England and passed on to the United States, the Odd Fellows is a group that "gives aid to those in need and … pursues projects to benefit mankind."

Early headstones in America were made of slate or sandstone. Marble was the next material to become popular but was too easily eroded by natural forces like wind, rain, and the sun. Granite is the material most used today.

Granite is an igneous (volcanic) rock, formed from molten rock that cools and hardens beneath the Earth's surface. Different colors of granite occur when the mineral makeup of the stone varies. For example, pink granite forms when there is a high concentration of pinkish-colored alkali feldspar. Grey granite is composed of alkali feldspar with an off-white coloring.

The strength of the headstones is determined by the minerals present in the rocks that they're made of. Some minerals are more likely to be weathered away by wind and rain – such as calcite (AKA Limestone). Mineralogy is an important field of study within Earth Sciences because we use minerals every day. Many sunscreens are made of minerals, our technology wouldn't work without rare Earth minerals, and we use minerals to build homes and other buildings. The more we know about minerals, the more sustainable buildings and tech we can design!

WALKING TIME TO STOP 6 (from Pioneer Cemetery): 5-8 minutes

- Turn around and walk north back to the set of stairs used to get into the cemetery and return to University St.
- Continue walking north (away from McArther Court) towards the center of campus.
- When you reach the intersection of University and 13th Ave, turn right on 13th.
- Cross University St. at the University and 13th Ave intersection. (This area gets busy during times between classes. If you feel it is too busy to keep the class together, you can walk south along University back towards the cemetery and cross University at the intersection with 15th Ave.)
- Walk east to the EMU (Erb Memorial Union). The flags are in the circular courtyard outside the building on it's NW side.



ANSWER: The 9 Tribal Flags of Oregon hang in front of the EMU.

Discussion Questions:

- Who do you think these flags represent?
- What do you think it means for a group of people to have a flag?
- What do flags represent to you?
- Do you know all the levels of United States governments? (Federal, State, Tribal, County, City, Local)

Optional Background Information for Discussion:

Indigenous people have inhabited what is now Oregon since time immemorial, since before human memory. Before colonization indigenous people defined themselves in hundreds of different cultures and tribes across the land we now know as Oregon. During colonization Native American people were forcibly removed from their homelands and forced to live together in 9 new groups. There are more tribal groups than these 9 in Oregon, that exist without recognition. These flags represent 9 tribes as they are recognized by the US Federal Government and the rich, diverse and modern cultures they practice.

Federally recognized Native American Indian Tribes within the United States, are Sovereign Dependent Nations. This relationship is complex and fraught with tension since it is hard to be a sovereign country under the power of another one. Each federally recognized tribe is considered its own nation, that the United States federal government has responsibility and power over. In very basic terms this means that each Federally Recognized tribe has its own tribal government, with elected officials that make laws, policy, and economic decisions for tribal citizens. This government also works with United States County, State and Federal governments to manage the United State's role in their affairs, including enforcing treaty agreements, enforcing some US laws on Tribal lands, and working with Non-Native citizens who may live on, work on, or visit official tribal lands. In reality this relationship is much more complex than described here and is very important to understand, as we all live on tribal land and should understand the governments of the nations we coexist with within our own nation.

The 9 federally recognized tribes in Oregon are: the Burns Paiute Tribe, the, Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians, The Confederated Tribes of Grand Ronde, The Confederated Tribes of Siletz Indians, The Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of Warm Springs, The Cow Creek Band of Umpqua Tribe of Indians, The Coquille Indian Tribe, and The Klamath Tribes.

The University of Oregon exists on stolen tribal land. It is located on Kalapuya Ilihi, the traditional homeland of the Kalapuya people who are now members of the Confederated Tribes of the Grand Ronde.

WALKING TIME TO STOP 7 (from EMU flags): 2 minutes

- Exit the circular courtyard outside the EMU and walk North along University.
- Columbia Hall has 2 entrances on its south side, one to the large lecture hall (it has a big glass window that says "Columbia 100" on it) and one smaller entrance on the side of the building. The smaller

entrance is against the wall with the rock sculpture (it looks like the back spines of a stegosaurus). This is the entrance to the building you want to take.

- Once you enter through the doors, use the staircase to go up to the first floor. Along the hallways are the mineral displays.
- The back exit of the building is at the end of the hallway and also has another staircase. If you choose, you can also venture upstairs to see the optical mineralogy displays (studying minerals through the microscope, it's really cool if you have the time!).

STOP 7: Columbia Hall Mineral Collection (10-15 minutes) CLUE: Find one scientific term used to describe minerals? What does that term mean?

ANSWER: There are multiple different answers for this, each sign has a different definition.



Activity:

There are multiple display cases throughout the building, on the first and second floors. Allow students to browse the cases as time permits.

Optional Background Information for Discussion:

Mineralogy is the study of minerals. Minerals are the building blocks of our earth, they make up all the rocks and ground we stand on and are even contained inside us! For example, the rock granite, used often in construction, is made up of quartz, feldspar, mica, and hornblende, and human bones are made of calcium, and iron is essential for making red blood cells. A mineral is a naturally occurring compound or element with a distinctive chemical composition, crystal form, and physical properties. Meaning, to be a mineral, it must come from the environment naturally, it must have a chemical composition that never changes, and the elements that make up the chemical composition must make a specific pattern that repeats. This means that even ice is a mineral! But only naturally occuring ice - the ice made by your freezer doesn't count because it was technically made by people!

There are many ways that scientists study minerals, but the most common method today is using different types of microscopes. On the second story of this hall, you will find images from a cross-polarized light microscope. This type of microscope lights up the minerals in rainbow colors called "birefringence" which can be used to help identify the mineral. There are many other types of traits that can be found in thin sections such as relief (how well one mineral in a bit of rock stands out compared to the rest of the rock), cleavage and fractures (tiny breaks in the mineral grains), twinning (a stripey pattern sometimes found on minerals), and more.

When looking at a mineral's hand sample (like the specimens in the display case), scientists determine the hardness, crystal habit, luster, cleavage, effervescence (if the mineral fizzes when hydrochloric acid is dropped on it), streak (the color left behind when scratching the mineral on a surface), and magnetic ability. It is difficult to determine a mineral just by looking at it because there are 6000+ different kinds of minerals!

WALKING TIME TO STOP 8 (From Columbia Hall): 1 minute

- Exit Columbia Hall using the exit at the end of the hallway. This will put you between Columbia and Pacific Hall.
- Turn right and walk along the outside of Pacific Hall. Continue down that path to get to the Fountain.

STOP 8: VOLCANOLOGY COURTYARD & FOUNTAIN (5 minutes)

CLUE: Find a fossil that was once a tree. What happened to it?

ANSWER: A large piece of petrified wood sits on the southwest side of the courtyard, just to the left of the stairs used to descend into the area. This wood is petrified.



Discussion Questions and Activity:

Have students stand on the green circles embedded in the courtyard, close their eyes and listen. At each circle location, the fountain sounds different. Students can move to different circles and listen to the fountain.

- Feel the petrified wood. Do you think it is heavy or light?
- What process has changed the wood to stone?
- Can you think of some other things that can become fossilized?
- What are some other ways fossils can form?
- Can you find examples of the basalt rock seen at the columnar basalt fountain?

Optional Background Information for Discussion:

Petrified wood, like other kinds of permineralization fossils, forms when minerals fill in the space of the living material. Petrified wood is formed when those minerals are dissolved in water that the wood eventually absorbs. Over time, those minerals form crystals in the wood. This process must occur where the object is protected and not exposed to oxygen, usually under sediment in a lake or a bog. The process takes thousands of years. The most common mineral that makes up petrified wood is quartz! Quartz is one of the most common minerals on Earth's surface.

There are different ways that fossilization occurs. One example is permineralization, or petrification where the remains of a living thing absorbs minerals and turns into rock. Another is carbonization, which occurs when the carbon in the organism being fossilized gets pressed into the rock. It ends up looking like a little stamp of the skeleton or leaves of the organism!

The fountain, called Cascade Charley, was created in 1991 by Alice Wingdall. Cascade Charley can be enjoyed by looking and listening.

WALKING TIME TO STOP 9 (From Cascade Fountain): 1 minute

- Walk down the steps on the northeast side of the courtyard
- Proceed into Cascade Hall

STOP 9: CASCADE HALL ROCK, MINERAL, and METEORITE CASES (10-15 minutes)

CLUE: Find a specimen on display that has the prefix "geo" in its name. Can you think of some other words that begin with "geo?" (Geography, geocaching, geometry) What might "geo" mean in these words?



ANSWER: "Geo" means earth. There are two geodes on display, one is quartz and the other is amethyst. Geode means, "Earth shaped." Geodes are named for their rounded shape and hidden inner characteristics.

Activity:

There are multiple display cases throughout the building. Allow students to browse the cases as time permits.

- First Floor: mineral, meteorite, and volcanology cases
- Second Floor: bread crust bomb, petrography (magnified images of minerals) displays

Optional Background Information for Discussion:

Geodes are round or oblong rocks that have crystal interiors. Scientists don't understand exactly how geodes form, but most experts agree on this theory: geodes form in the open spaces in sedimentary or volcanic (igneous) rocks. Groundwater carrying minerals seeps into the hollow area. The minerals form a tough inner layering and grow into crystals. The volcanic or sedimentary "host" rock surrounding the geode wears away and exposes the geode. Visit <u>earthsciences.uoregon.edu/about-us/displays</u> for more information.

WALKING TIME TO STOP 10: 2 minutes

- From the second floor of Cascade Hall, go out the door across the hall from the bread crust bomb
- Walk across the bridge and down the steps along the fountain
- Cross the courtyard and walk down the same steps used to go into Cascade Hall, but this time turn east (right) and continue onto the paved path and stop at the benches

STOP 10: METASEQUOIA TREE (5 minutes)

CLUE: A deciduous conifer is a tree that produces cones, but also sheds its leaves in the fall. Find an example of a deciduous conifer.

ANSWER: Metasequoia, or dawn redwood, tree.

Discussion Questions:

- Does this look like other trees that lose their leaves?
- Can you name other deciduous trees?
- How was Oregon different at the time the Metasequoia was common?

Optional Background Information for Discussion:

According to fossil evidence, the Metasequoia lived in Oregon about 30 million years ago. Scientists thought it had long been extinct until living Metasequoia trees were discovered in China just 60 years ago. The tree has



since been re-introduced to Oregon. Metasequoias are deciduous conifers; they produce cones and shed their leaves in fall. The Metasequoia is the state fossil of Oregon.

For more information on the Metasequoia, visit: <u>http://oregonstate.edu/dept/ldplants/megl.htm</u>, or <u>http://www.oregonfossilguy.com/state_fossil.php</u>

WALKING TIME TO STOP 11: 5-8 minutes

- From the Metasequoia tree, continue walking east along the sidewalk past the science library (glass and brick building in the middle of the science complex).
- Walk into Willamette Hall using the entrance near to the science library. The doors are underneath the awning in the inner corner of the building. It will be next to the entrance to Klamath Hall.
- Walk through Willamette Hall to the main entrance, which is a large set of double doors in a wall made of windows. Exit through these doors and walk up the path towards 13th Ave.
- When you reach 13th Ave take a left and look up high along the wall for the Marie Curie Bust.
- If you do not want to take the detour through Willamette Hall, you can also head straight for 13th Ave from the Metasequoia tree by walking south along the path between Willamette Hall and Cascade Hall.

STOP 11: WILLAMETTE HALL & MADAME CURIE BUST

CLUE: Find the bust/head of the first person to ever win 2 Nobel prizes. Do you recognize who it is?

ANSWER: Marie Curie Bust. It is located on the wall of Willamette Hall high up over the trees.

Discussion Questions:

- Do you know what Marie Curie discovered?
- Can you think of ways Marie Curie's work still impacts us today?
- Why was Marie Curie's work so important?

Optional Background Information for Discussion:

Marie Curie was the first person to win 2 Nobel prizes due to her work with radioactivity where she discovered the elements polonium and radium. She worked with radioactive isotopes, which are special versions of chemical elements that decay over time. Her work led her to creating the term "radioactivity," as well as pioneering the first studies using radioactive isotopes to treat cancer.

During the First World War Curie invented special x-ray machines to help soldiers on the front lines. Unfortunately, her work was very dangerous, and she eventually died of radiation poisoning from it. The elements she worked with were so radioactive that even today, you must wear a protective suit to even look at her cookbook! Today we still use radioactive isotopes in medicine, scientific research, consumer products (like nonstick cookware and photocopiers), power, and in geology! Geologists use radioactive isotope testing to determine exactly how old a rock or fossil is.



WALKING TIME TO STOP 12: 10-15 minutes

- Continue walking east on 13th Ave until you reach the edge of Willamette Hall.
- Cross 13th Ave towards the EMU (the side of the EMU will have a glass wall at sidewalk level with several suites for different on campus programs). Continue south between the EMU and Carson Hall
- Continue walking south until you reach 15th Ave. Then, turn left on 15th.
- Continue walking on 15th Ave until you return to the Museum Courtyard.

STOP 12: MAMMOTHS at the MUSEUM (5 minutes)

CLUE: These giant Ice Age animals once roamed this land, but now have all gone extinct. What two are found in the courtyard?

ANSWER: Columbian Mammoths (mother and baby)



Optional Background Information for Discussion:

Columbian mammoths lived throughout Oregon between 2.5 million and 13,000 years ago. For several thousand years, mammoths coexisted with the First Americans – the ancestors of modern Oregon Tribal members – who hunted them for food and used their bones and tusks for tools. The mother and baby Columbian mammoth sculptures are fiberglass replicas created by paleo-artist Gary Staab.



UO Campus Scavenger Hunt Clues/Answers and Walking Directions ONLY

STOP 1: MUSEUM COURTYARD (Visit Time: 10 minutes)

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ANSWER: Replica of Willamette Meteorite, also called "Tamahnawus"



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CLUE: Find the gates to a stadium that has been hosting the U.S. Track and Field Olympic Trials since 1972.

ANSWER: Hayward Field Gates

WALKING TIME TO STOP 3 (from Hayward Field): 7-9 minutes

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STOP 3: REC CENTER FOUNTAIN (5 minutes)

CLUE: Find the fountain made out of one of the most common rock type in Oregon.



ANSWER: The Basalt Fountain

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• Cross the street at the stop sign next to the statue (Onyx Street). The sculptures are in front of Straub Hall.

STOP 4: STRAUB QUAD SCULPTURES (<5 Minutes)

CLUE: Find a bronze statue of a depiction of a moon goddess.

ANSWER: Luna, a statue by Ellen Tykeson. Her work has been commissioned for public sites in Oregon and Southern California. She also has been selected for inclusion in the National Sculpture Society's annual show

WALKING TIME TO STOP 5 (from Luna Sculpture): 5-10 minutes

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- Walk South on University until you reach the first set of stairs into the Cemetery, they will be on your right-hand side.
- Walk south through the cemetery (away from the center of campus) to find Angelina Ruggle's grave marker.

STOP 5: PIONEER CEMETERY (10 Minutes)

CLUE: Find the grave marker for Angelina Ruggles – it's not far. The marker is granite and is very clean. Look at the other markers around it. What other types of rock are used? What has happened to them?

ANSWER: There are three different kinds of rock used as headstones: granite, marble, and sandstone. The marble and sandstone have eroded and grown moss.

WALKING TIME TO STOP 6 (from Pioneer Cemetery): 5-8 minutes

- Turn around and walk north back to the set of stairs used to get into the cemetery and return to University St.
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- Walk east to the EMU (Erb Memorial Union). The flags are in the circular courtyard outside the building on it's NW side.

STOP 6: EMU Tribal Flags (5 minutes) CLUE: Find 9 flags you may not recognize.

ANSWER: The 9 Tribal Flags of Oregon hang in front of the EMU.

WALKING TIME TO STOP 7 (from EMU flags): 2 minutes

• Exit the circular courtyard outside the EMU and walk North along University.







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WALKING TIME TO STOP 8 (From Columbia Hall): 1 minute

- Exit Columbia Hall using the exit at the end of the hallway. This will put you between Columbia and Pacific Hall.
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STOP 8: VOLCANOLOGY COURTYARD & FOUNTAIN (5 minutes) CLUE: Find a fossil that was once a tree. What happened to it?

ANSWER: A large piece of petrified wood sits on the southwest side of the courtyard, just to the left of the stairs used to descend into the area. This wood is petrified.



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- Walk into Willamette Hall using the entrance near to the science library. The doors are underneath the awning in the inner corner of the building. It will be next to the entrance to Klamath Hall.
- Walk through Willamette Hall to the main entrance, which is a large set of double doors in a wall made of windows. Exit through these doors and walk up the path towards 13th Ave.
- When you reach 13th Ave take a left and look up high along the wall for the Marie Curie Bust.
- If you do not want to take the detour through Willamette Hall, you can also head straight for 13th Ave from the Metasequoia tree by walking south along the path between Willamette Hall and Cascade Hall.

STOP 11: WILLAMETTE HALL & MADAME CURIE BUST

CLUE: Find the bust/head of the first person to ever win 2 Nobel prizes. Do you recognize who it is?

ANSWER: Marie Curie Bust. It is located on the wall of Willamette Hall high up over the trees.

WALKING TIME TO STOP 12: 10-15 minutes

- Continue walking east on 13th Ave until you reach the edge of Willamette Hall.
- Cross 13th Ave towards the EMU (the side of the EMU will have a glass wall at sidewalk level with several suites for different on campus programs). Continue south between the EMU and Carson Hall
- Continue walking south until you reach 15th Ave. Then, turn left on 15th.
- Continue walking on 15th Ave until you return to the Museum Courtyard.





STOP 12: MAMMOTHS at the MUSEUM (5 minutes)

CLUE: These giant Ice Age animals once roamed this land, but now have all gone extinct. What two are found in the courtyard?

ANSWER: Columbian Mammoths (mother and baby)





<u>CLUE 1</u>: Find the Willamette Valley's visitor from outer space.

<u>CLUE 2:</u> Find the gates to a stadium that has been hosting the U.S. Track and Field Olympic Trials since 1972

<u>CLUE 3:</u> Find the fountain made out of one of the most common rock type in Oregon.

<u>CLUE 4</u>: Find a bronze statue of a depiction of a moon goddess.

<u>CLUE 5:</u> Find the grave marker for Angelina Ruggles – it's not far. The marker is granite and is very clean. Look at the other markers around it. What other types of rock are used? What has happened to them?

<u>CLUE 6:</u> Find 9 flags you may not recognize.

<u>CLUE 7:</u> Find one scientific term used to describe minerals? What does that term mean?

<u>CLUE 8:</u> Find a fossil that was once a tree. What happened to it?

<u>CLUE 9:</u> Find a specimen on display that has the prefix "geo" in its name. Can you think of some other words that begin with "geo?" (Geography, geocaching, geometry) What might "geo" mean in these words?

<u>CLUE 10:</u> A deciduous conifer is a tree that produces cones, but also sheds its leaves in the fall. Find an example of a deciduous conifer.

<u>CLUE 11</u>: Find the bust/head of the first person to ever win 2 Nobel prizes. Do you recognize who it is?

<u>CLUE 12</u>: These giant Ice Age animals once roamed this land, but now have all gone extinct. What two are found in the courtyard?