



Teacher/Chaperone Planning Packet

Please read this packet
carefully as some of the
content has changed

Tillamook State Forest **SELF GUIDED**

Tillamook Forest Center

45500 Wilson River Highway
Tillamook, OR 97141

(503) 815-6800 Phone
(866) 930-4646 Toll-free
(503) 842-2663 Fax
www.tillamookforestcenter.org



Welcome to the Forest

Dear Teacher/Group Leader:

Thank you for scheduling a self-guided field trip to the Tillamook Forest Center. We look forward to seeing you and your students! Our facility and surrounding forest offer unique opportunities to develop a deeper connection with Oregon's forests through exploration and discovery.

Field Trip Preparation

In this packet you will find some preparation materials to assist you in planning your trip and help prepare your students and chaperones for their experience. Enclosed, you will find:

- Exhibit guide: A time management tool and description of exhibits
- Example schedules
- Tillamook Forest Center site maps
- A teacher preparation checklist
- A parent letter
- Chaperone Guide/Student Conduct & Safety guideline

Please send us a copy of your self-guided agenda at least one week prior to your trip. Prepare your students and adult chaperones with your day's schedule, and review the student conduct and safety form with your class. **We do require one adult for every three to four students.** The Center is open to the public and hosts other guided school groups. To ease congestion at the Center, consider dividing your class into smaller groups of equal size, with an adult chaperone assigned to each sub-group. Smaller groups can rotate through the different exhibits at different times and maximize a quality experience for all. Regardless of weather, **we strongly encourage groups to spend a maximum of 30-45 minutes in the hall**, and the majority of their time outside in the forest. That's where the magic is!

When you arrive, drop students off at the bus shelter. The bus driver can pull ahead and park in the motor home parking area. **Lunch locations** are available on a first-come, first-served basis. These locations include: bus shelter (seats 70), picnic tables (seats 36), under the bridge (seats 24), on the bridge (seats 24), or on your school bus. In case of inclement weather, we will do our best to accommodate your group, but space indoors cannot be guaranteed. Storage containers or backpacks are recommended for re-packing lunches at the end of the day. **Please bring a garbage bag** and be prepared to pack out all waste and recyclables associated with lunches. For health, safety and business reasons, we ask that you check in with the Center staff to confirm your lunch site location and collect information or self-guided resources for the day.

The Tillamook State Forest can be colder and rainier than surrounding areas. Please make sure that students are prepared with raincoats, closed-toed shoes, long pants and warm clothing. Enclosed in your packet is a parent / guardian letter that you can copy and send home with your students. Be alert to road conditions and road closures in the forest on the day of your trip. In cases where conditions are judged to be unsafe due to high winds or other factors such as power outages, we will contact you as early as possible.

In case of emergency

The Tillamook Forest Center is located in a remote area. The Center is equipped with phone service, but **cell phone service is not available**. Bring a phone list of your students' parents or guardians in case of medical emergency. Teachers and other accompanying adults are responsible for the general health and safety of their students at the Center. Teachers, adults and the bus driver should remain with the groups of students at all times. Notify uniformed staff at the front desk about lost property or an incident requiring first aid. The front desk is also an ideal meeting place for students and chaperones in case of separation. If the building needs to be evacuated, a meeting site is indicated on the site map. All Center employees carry two-way radios at all times.

If you have any questions about your field trip, please don't hesitate to call our staff at (503) 815-6800.

Sincerely,

A handwritten signature in cursive script that reads "Chris Friend".

Chris Friend
Program Coordinator

Teacher Preparation Checklist

One month prior to field trip day

- ☐ Visit the Tillamook Forest Center prior to your visit if possible
- ☐ Review the Exhibit Guide, example schedules, trail guides and site maps to plan your education experience
- ☐ Secure adult helpers (**recommend 1 for every 3-4 students**)
- ☐ Plan/create schedule for the day including indoor and outdoor activities and send a copy to the Tillamook Forest Center staff
- ☐ Arrange for transportation

One week prior to field trip day

- ☐ Review the *Chaperone Guide/Student Conduct & Safety* Guidelines
- ☐ Contact the bus barn/transportation organizer and confirm reservation date, time and directions
- ☐ **Send a copy of your self-guided agenda to the TFC staff**
- ☐ Remind students to come prepared for weather
 1. Wear closed-toed shoes that are easy to walk in and long pants if traveling on the trails
 2. Bring warm clothes, a rain coat, hat, water, clipboard and pencil
 3. Optional: camera
- ☐ Make copies of:
 1. The site map and Exhibit Hall map for adult helpers
 2. *Chaperone Guide/Student Conduct & Safety* guidelines
 3. The *Parent* Letter and send home with each child if applicable
 4. Your schedule for adult helpers
 5. Activity sheets for adult chaperone guides and students
- ☐ If you decide to allow students to visit the gift shop, please notify parents that \$5 in spending money will provide students with a wealth of choices. On the day of your visit please notify the staff if students are allowed in the gift shop. Please communicate to parents that only small groups (1 adult and 5 students) are allowed in the gift shop at one time and to rotate groups to avoid congestion in and around the gift shop area

Field trip day

- ☐ Divide the class into manageable group sizes to rotate through the Center
- ☐ Review your schedule and activities with adult helpers
- ☐ Hand out the site map and student conduct information to adult volunteers
- ☐ Review the student conduct and safety form with your students
- ☐ Bring lunches, pencils, paper and clipboards
- ☐ Bring a garbage bag to pack out lunch leftovers
- ☐ Have a list of student emergency contact phone numbers
- ☐ Bring a first aid kit
- ☐ Receive and complete an evaluation from a Tillamook Forest Center staff member

Parent Letter

Dear Parents and Guardians,

In the next few weeks your child's class will be coming to the Tillamook Forest Center for an educational field trip. We are looking forward to seeing the students and would like their trip to be an enjoyable one. The weather in the Tillamook State Forest is often colder and rainier than surrounding areas. The field trip will **not** be cancelled due to rain, so please make sure your child is dressed appropriately.

Below is a checklist of recommended gear for the field trip:

- Rain coat or poncho
- Warm clothing
- Long pants
- Sturdy, waterproof hiking or walking shoes
- **Sack lunch** and a **drink**.

Please note: Avoid clothing that exposes skin to insects and prickly or toxic plants. Avoid wearing fragrances that may attract insects. Most likely your child will be eating outdoors which increases insect interest and contact, or in close quarters on a bus which raises the risk of contamination for those with severe food allergies.

See your student soon!
Tillamook Forest Center Staff

Parent Letter (Spanish)

Queridos padres o guardianes,

En las próximas pocas semanas la clase de su niño vendrá al Bosque Estatal de Tillamook para un viaje educativo. Tenemos ganas de ver a los estudiantes y nos gustaría que su viaje sea agradable. El tiempo en el Bosque Estatal de Tillamook es a menudo muy frío con más lluvia que las áreas circundantes. El viaje **no** será cancelado por la lluvia, por favor asegúrese que su niño esté vestido apropiadamente.

Abajo esta una lista de lo que necesitara su hijo/a para el viaje:

- Abrigo de lluvia o poncho
- Ropa caliente
- Pantalones largos
- Zapatos o botas cómodas e impermeables
- **Por favor de preparar un almuerzo con una bebida para su hijo/a.**

Por favor note: Evite vestir lo que expone la piel a insectos y plantas espinosas o tóxicas. Evite llevar puestas fragancias que pueden atraer a insectos. Probablemente su niño comerá al aire libre, que aumenta el interés de insectos, o en cuartos cercanos o en el autobús.

¡Nos veremos pronto!
Tillamook Forest Center Staff

Chaperone Guide/Student Conduct & Safety

Dear chaperone guides,

Thank you for volunteering to serve as a chaperone guide for a Tillamook Forest Center field trip. Your participation is greatly appreciated and will ensure a safe and enjoyable experience for all visitors. **As a chaperone guide, your job is to keep students safe, making sure they follow the guidelines, and encouraging them to learn and have fun.**

Because you are supervising students, the only children allowed to participate during the field trip are those enrolled in the class. If you wish to bring a child who is not enrolled in the field trip class, we hope you will consider bringing them on a separate visit with your family and friends.

Guidelines to make your day at the Tillamook Forest Center successful!














-  Stay with the students that have been assigned to you – regardless of their age and independence
 -  Help your students learn and explore
 -  Respect the center grounds. Please do not allow littering, writing on walls, climbing on exhibits or anything else that may damage property
 -  Please be prepared to be outside most of the day
 -  Help ensure students behave appropriately and are respectful
 -  Remind students to respect other visitors. You will be sharing the center with many other people. Please take turns enjoying the exhibits, keep voices low and walk rather than run
 -  Please review the exhibit and site maps prior to your arrival
-



Exhibit Hall/Gift Shop

-  Please enjoy the exhibit materials at the location they are found and tidy the area when finished
-  The movie is 15 minutes long, starts on the hour and half-hour
(maximum occupancy is 69)
-  If the teacher decides to allow students in the gift shop, group sizes are limited to one adult and five students at a time



Trails

-  Show respect for the wildlife and natural surroundings. Please remind students to not pick flowers or harass the wildlife
-  Please leave sticks and stones on the ground
-  Please keep feet on the ground & stay on the trails




Fire Lookout Tower

-  Please rotate through in small groups
(maximum occupancy is 27)
-  Please do not drop anything from the tower

Food and Beverages

-  Lunch can be enjoyed either in the community room, at the covered bus shelter, or at the outside picnic tables
(Please remember that food and drinks are not allowed in the exhibit hall)
-  Please pack-it-in and pack-it-out, taking all lunch waste back to school

In Case of Emergency

-  Contact any uniformed employee for assistance
-  Meet at the bus stop during an alarm/evacuation
-  Cell phone service is not available throughout the forest or at the Tillamook Forest Center. The center is equipped with phone service in case of emergency. A payphone is available for your use.

have fun learning about the forest!

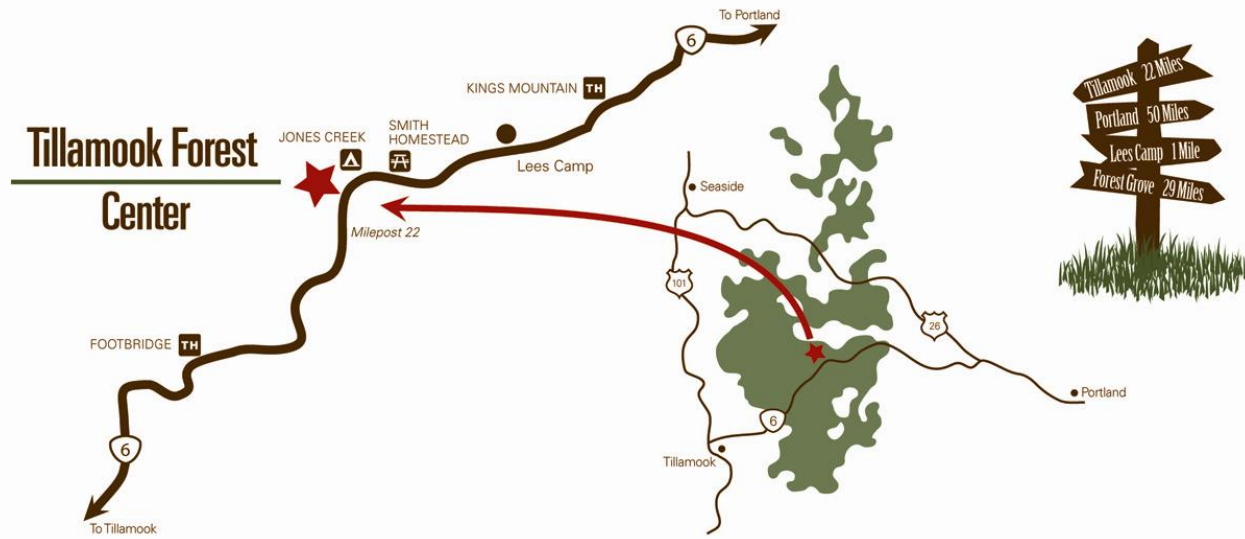
Student Conduct and Safety Tips (Spanish)

- Sea por favor respetuoso a esos visitantes. Hable suavemente.
- NO SE PERMITE NINGUN ALIMENTO O BEBIDA EN LA GALERIA. Si el alimento o la bebida se compra del carro de alimento necesita ser consumido afuera. Las áreas al aire libre para comer incluyen el puente, el cobertizo cubierto y el área de la comida campestre.
- Por favor, si trae basura con usted llévesela cuando se valla.
- *Les pedimos que los estudiantes hagan sus visitas a la tienda algún otro día. Los maestros y chaperones sean bienvenidos a la tienda durante la hora del almuerzo.*
- Recuerde por favor la seguridad y el respeto. Por favor no jugar o llevarse pesado con los demás. Recuerde también permanecer en las veredas y no lance los artículos en el río o la charca en frente del centro.
- El teatro de la película tiene una ocupación máxima de 64 personas. No se permite reservar el teatro y la ocupación máxima no es flexible.

Torre de observación

- La torre de observación tiene una ocupación máxima de 27 personas. Los grupos grandes necesitarán que subir en grupos más pequeños, y los estudiantes necesitan ser acompañados por un adulto supervisor.
- Sea por favor respetuoso a esos visitantes abajo. No tire materiales hacia abajo.

Directions



Driving Directions

Your program will take place at the **Tillamook Forest Center**. Please provide a copy of the directions to your bus company when making your transportation arrangements. We have found that it is best to have a bus dedicated to your field trip visit for the entire day.

From Portland

Approximate driving time: 60 minutes

Travel west from Portland on the Sunset Highway (US 26) toward the Oregon Coast. Take Exit 53 marked "Highway 6 | Tillamook" This is a left-side exit. Continue 29 miles west on Highway 6. The **Tillamook Forest Center** and the **Smith Homestead Day-Use Area** are both located between mileposts 22 and 23. The center is about one quarter mile west of the Smith Homestead.

From Tillamook

Approximate driving time: 25 minutes.

Travel east from Tillamook on Highway 6. The **Tillamook Forest Center** and the **Smith Homestead Day-Use Area** are both located between mileposts 22 and 23.

For student safety, please use the curb closest to the building to unload and load at the bus shelter. After unloading the bus driver can park in the large pull-through parking slots. We ask bus drivers return to the bus loading area at the end of the day. Gates open at 8:00 a.m. and the Center opens at 10:00 a.m.

Exhibit Guide

Thank you for your interest in the Tillamook Forest Center! Our self-guided materials help classes make the most of their field trip and help students engage with the exhibits and the forest. Use this Exhibit Guide, in coordination with the site map and example schedules, to create your own agenda for a more focused experience.

Please note the approximate lengths of time in which you and your students can expect to spend at each of the Center's exhibit areas. Chaperoned groups should divide large groups and begin their tours in separate sections of the Center to prevent congestion. Please encourage your students to explore and discover the forest at a slow pace, and the exhibit hall in a safe and respectful manner. Contact our Education Programming staff at [503-815-6800](tel:503-815-6800) for questions or suggestions.

Time Management

For the best self-guided experience:

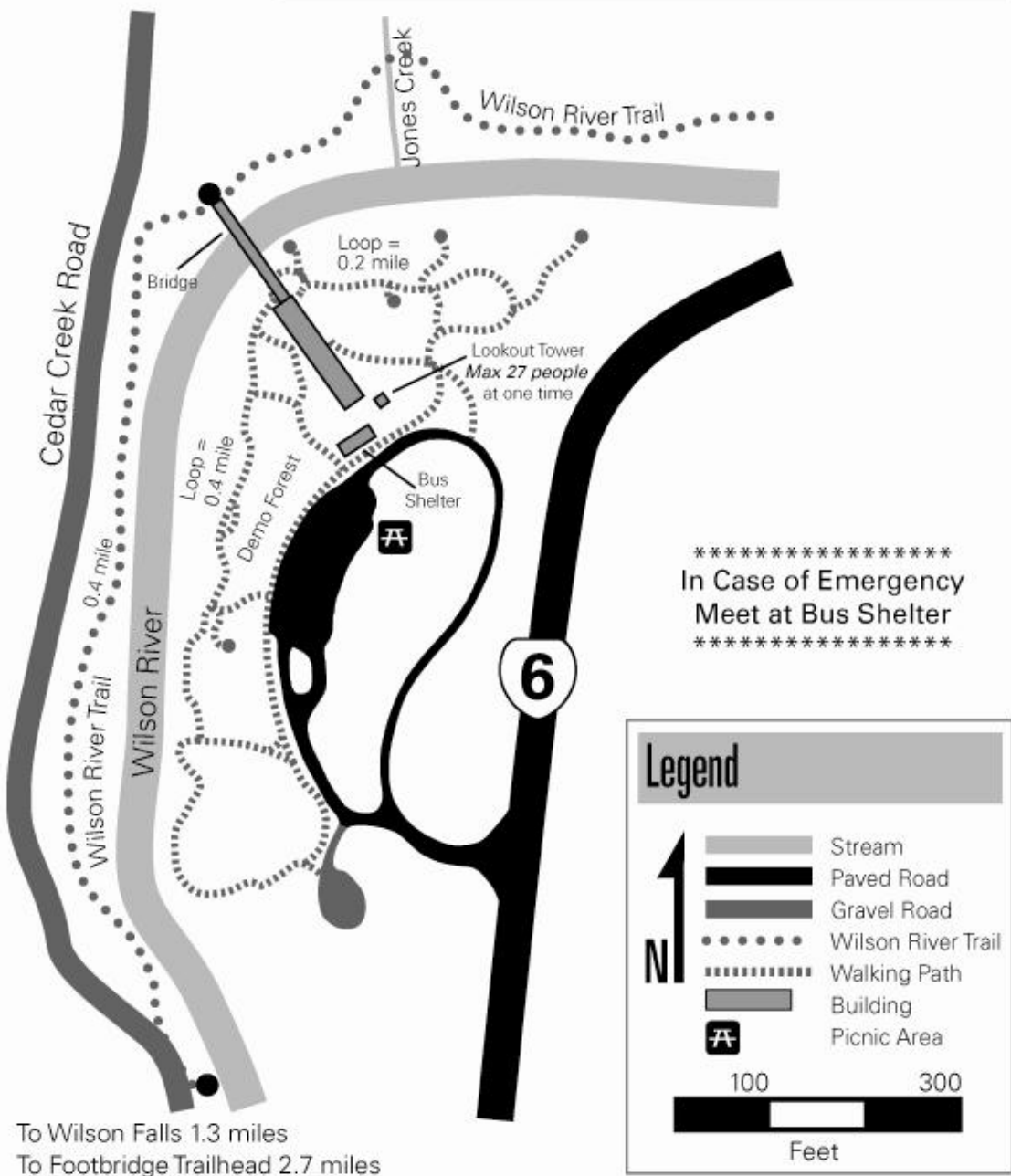
1. Plan a pre-site visit to the Center if possible
2. Use this exhibit guide for information on timing of activities and exhibit contents
3. Make copies of student activity sheets before arrival to the Center (see website)
4. Prepare your schedule with rotations and inform your chaperones of their duties
5. Prepare students to be outside and or inside
6. Break students into teams and match them up with an adult **suggest 1 adult per 5*
7. Decide on stations and prioritize the things you want the students to see and do

Self-guided Materials

You can create your own worksheets using example questions from this guide. Self-guided activity sheets are also on the web at <http://tillamookforestcenter.org>. Worksheets are also available on site.

Tillamook Forest Center

Site Map



Outside Stations/Exhibits

Fire Lookout Tower

Activity Pace: 10 minutes for all age levels

(Maximum occupancy: 27)

Purpose: Fire lookout towers played a key role as a fire detection tool on the Tillamook State Forest. There were 16 fire towers scattered throughout this forest and the nearest town was typically 30 miles away. Most forest visitors don't have the opportunity to hike to the remote areas of Oregon's forests and see a fire tower. The life of a fire lookout is a solitary one, and is a seasonal job that is still performed throughout Oregon today.

What to Expect: The 40' Lookout Tower is modeled after a 1955 Forest Service design. Students will climb 72 steps to the tower cabin, traveling through the different layers of the forest along the way, with their final step among the tree tops. Once inside the cabin, students will be immersed in the life of a lookout. They will see a room with a 360 degree view of the forest and all the comforts of home. Students can manipulate fire detection instruments and flip through journals that detail the life of a lookout.

Exhibit highlights:

1. **Elevated view of forest and Center**
2. **Osborne Fire Finder**
3. **Shortwave Radio**
4. **Insulated stool, cookware, clock, bed and sleeping bag, books**
5. **Map of former Tillamook State Forest lookout towers, lantern**
6. **Stories from the Cloud Girls Journal** (female lookouts)
7. **Layers of the forest and wildlife** (outside the tower)

Example questions / activities for students:

- Find a story about a former lookout and read about their experience.
- Locate a place within or around the lookout tower and describe what the job of a lookout may have felt like.
- Manipulate tools that the lookout might have used if they spotted smoke.
- What steps were used to spot and call in a fire?
- List examples of animals that live and thrive in a forest canopy. Can you spot any?

Demonstration Forest & on-site trails

Activity Pace: *K – 2nd grade = 30 minutes* *3rd – 8th grade = 45 minutes*

Purpose: Forest trails allow students a chance to take in the forest air and stretch their legs. Students will get an up-close view of wildlife and plants growing in different forest environments.

What to Expect: The demonstration forest west of the Center displays the Oregon Department of Forestry's unique forest management approach called Structure-based Management. Students will be able to see the various stages of forest management (growth & harvest) that are found across the Tillamook State Forest. This site was hand-planted by school children in 2004 and shows how growing trees survive, thrive, or expire in a changing forest landscape. Several trail signs provide information on stand types, wildlife, plant life, and water quality.

The trail system *east* of the Center contains legacy trees (now nurse logs and stumps) that existed prior to the four major forest fires and provides the best access to the Wilson River. Interpretive signs help students identify and learn more about five different species of native trees. Forest trails on the other side of the river offer more opportunities for extended hikes.

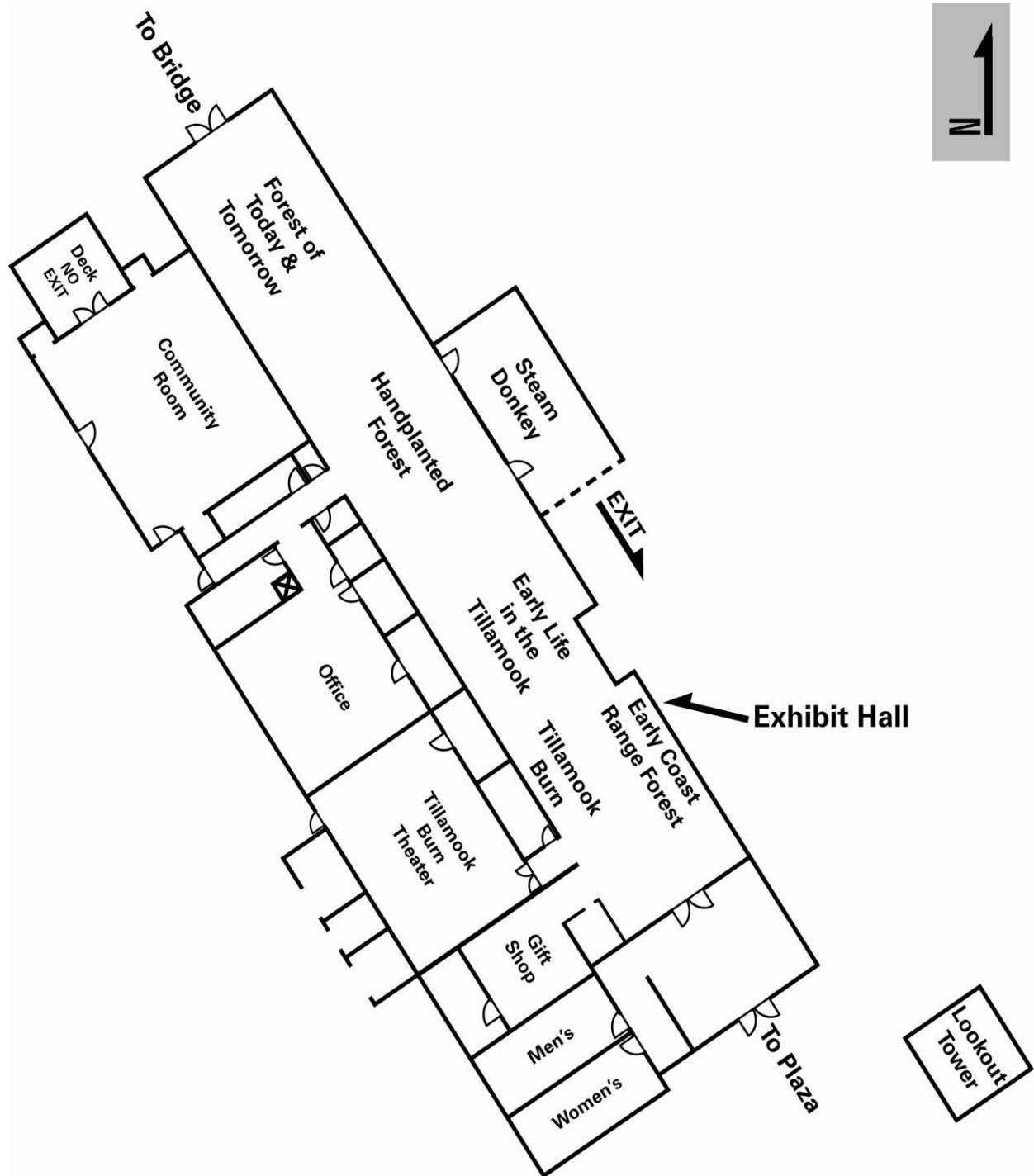
Exhibit highlights:

1. **Flat trails** --2 feet wide, ADA accessible, .2 miles and .4 miles in length
2. **Nurse logs**
3. **View of the Wilson River**
4. **Tree ID signs and information** (Western hemlock, Western redcedar, Red alder, Douglas-fir, Grand fir, Vine maple, Sitka Spruce)
5. **Four managed stands in various stages of growth**

Example questions / activities for students:

- Find an area where you can see 3 layers of the forest. Name or draw a plant or animal living in each layer.
- Draw a profile of a young forest (mostly seedlings) and a forest with older trees.
- In which forest stand would you most likely find a greater diversity of animals?
- Name one common human use for each of the tree species found on the trails.
- Try to find as many different colors of plants as you can.
- Find a place along the trail to sit quietly and observe the forest for 5 minutes.
- Look for wildlife homes and evidence.
- Find a nurse log or stump. Count the number of different plants growing on it.
- Draw a picture of your favorite place in the forest.

Exhibit Hall Map



Inside Stations / Exhibits

Exhibit Hall Exploration: K – 2nd grade = 30 minutes

3rd – 8th grade = 45 minutes

Section #1

Map of the Tillamook State Forest

Purpose: Four major forest fires burned through the Tillamook State Forest from 1933 to 1951. Collectively known as the Tillamook Burn, these fires defined the life and times of this region and set the stage for the forest you see today. The map serves as an introductory tool for welcoming, orienting and introducing visitors to the story and displaying the size of the fire's destruction.

What to expect: Pass through the front glass entry doors of the Center to find a 5'x 5' topographical map (created from a satellite image) of the Tillamook State Forest. Trace the route taken from your school to the Center or find the highest and lowest elevations in the forest. To get a sense of how big these fires were, push any of the five buttons on the map to illuminate the perimeter of each of the burned areas (1933, 1939, 1945, 1951 and then ALL four fires simultaneously).

Example questions / activities for students:

- What path do you think the early homesteaders used to travel through these mountains?
- Is there a reason why the 1951 fire was smaller than the others?
- Find a river on the map and trace its path. Does it flow into the Pacific ocean?
- Find an area on the map that was burned more than once during the four major fires.
- How many rivers begin (the headwaters are located) in the Tillamook State Forest?
- Can you find any towns in the Tillamook State Forest?

The Early Coast Range Forest

Purpose: The Early Coast Range Forest was drastically altered in the Tillamook Burn. Most of the large trees and older forest structure was lost. Only small pockets of large live trees from that era can be found on the forest today. This section explores the major forces that shaped the landscape and provides a glimpse of what this towering forest was like.

What to expect: Tree models give students a sense of how large the trees were prior to the fires. Hands-on exhibits show a former forest with a rich diversity of plants and animals. Open a drawer from the side of a tree to see its cross-section and history through growth rings. Pull on a pileated woodpecker to reveal a secret door displaying the inner structure of a tree and a bluebird's nest. Pull on a branch and discover a hidden panel displaying layers of soil that supported the giant trees of the Tillamook. Look for tiny creatures in decaying wood at the nurse log exhibit.

Exhibit highlights:

1. **Tree ring pull-out**—Tree life history (fire scars, early wood, late wood, etc)
2. **Magnet match game**— Using habitat clues, match and place plants and animals in their appropriate habitat. (two sets highlight snag use and forest inhabitants)
3. **Soil layer pull-out**—Displays organisms that live in soil and the important components of soil
4. **Rain tubes**—Illustrates the level of rainfall at the Center and different location across Oregon
5. **Forest succession**—Panel with information and pictures showing how a forest changes over time
6. **Nurse log exhibit**— Move a sliding magnifier to view animals and plants living in decayed wood
7. **Roots on the carpet** — Look for roots that seem to extend from a legacy tree stump outside the window

Example questions / activities for students:

- What conditions must be present for a forest to be considered a temperate rain forest?
- Draw a map of Oregon listing the towns on the rain tubes and record the annual rainfall for each of these places.
- Looking at the tree cross-section, what is the difference between early wood and late wood?
- What kinds of plants and animals use dead wood for food or shelter?
- Draw stages of forest succession and then take a walk outside to see it for yourself.
- Make a list (or draw) some of the animals that were found in the early coast range forest.
- Create a list of ingredients for a soil recipe. What are the foundations for soil?

Tillamook Burn

Purpose: One spark in 1933 changed the Tillamook State Forest landscape for decades, while more fires burned across the area every six years. Was it a jinx? The fires left behind hillsides of charred snags (standing dead trees), while untold numbers of plants and wildlife were wiped out. These fires deeply affected Oregonians and brought despair to many communities. The Tillamook Burn exhibit area provides a glimpse of the power of fire and its long-term, residual effects.

What to expect: Feel the roar of fire's fury in our compelling multi-media Tillamook Burn Theater. Listen to the amazing stories of people who survived the fires. See and touch objects recovered from the ashes. Discover signs of life in a burned snag.

Exhibit highlights:

1. **Movie Theater**—Our film, *Legacy of Fire*, is 15 minutes long and provides a nice historical overview of the fires and the forest's history. The movie begins on the HOUR and half-hour daily. The theater seats 64. Suggested viewing ages are 2nd grade and up.
2. **"From the Front Lines"** (audio station)—Stories from those who witnessed the fires first-hand:
 - ◆ Esther Ballard—fire camp cook (1933)
 - ◆ Al Berman—Civilian Conservation Corps firefighter (1933)
 - ◆ Mary Roberts—Oregon Journal reporter (1933)
 - ◆ Clyde Ramsay—firefighter (1939)
3. **Interactive burned snag**—Open a door to expose beetle larvae and their galleries
4. **Early fire-fighting equipment**—Pump, shovel, Pulaski, hose
5. **Fire fighting clothing**—Present day *Nomex* shirts, pants, and helmet for dress up

Example questions / activities for students:

- How many total acres were burned in the forest? What were the social, environmental and economic effects of the fires?
- Compare the fire technology in the 1930s to the technology used today.
- What kinds of tools did the firefighters use during the Tillamook burn era?
- What kinds of clothes do wild land firefighters wear today?
- Where did the firefighters find water to fight fire in the deep forest?
- List one or two ways a fire is good for forests.
- List one or two ways a fire harms forests.

Section #2

Early Life in the Tillamook

Purpose: People have inhabited the Tillamook region for thousands of years. American Indians, explorers and surveyors, homesteaders, and loggers interacted with the forest in different ways. This section remembers the people who shaped the early forest to meet their daily needs and how the forest, in turn, shaped and defined their lives. Their vivid stories weave the colorful fabric of this region's history.

What to expect: Students will see what life was like for the early settlers and vacationers to the Tillamook State Forest. Students will discover how American Indians used the forest plants and trees to make tools; hear the voices of the past; visit a stagecoach station, train station, homestead cabin and logging camp bunkhouse; see how wagon roads, railroads and towns expanded people's presence in the forest.

Exhibit highlights:

American Indian

- | | |
|---|------------------------|
| 1. Cedar & tule mats | 5. Clam-washing basket |
| 2. Cedar tree replica | 6. Fish oil bowl |
| 3. Fishing hooks, lines, trap & net weights | 7. Model canoe |
| 4. Cedar rope | |

Homesteading

- | | |
|---|----------------------------|
| 1. Log cabin replica | 4. Butter churner |
| 2. Wood stove, washboard, luggage, games | 5. Dress up clothes |
| 3. Tools for travel, cooking, hunting, construction, etc. | 6. Telephone (interactive) |

Logging

1. Cross-cut & bucking saws
2. Springboards in tree replica
3. Steam Donkey (actual & model)

Railroad and Road Builders

1. Model train
2. Early route maps in the forest
3. Railroad sign (interactive)
4. Wagon ride (interactive)
5. Train ticket window

Example questions / activities for students:

- How do you think the cedar is collected from the tree? Find something that is made from cedar.
- Who were the first people in this area?
- What are the names of the American Indian tribes living in or around this area?
- What were the names of the first homesteaders to this area?
- Find an example of a tool that was used by the early pioneers and is still used today.

Tree Planters' Tent

Purpose: The Hand Planted Forest recalls the challenges, determination, hard work and many personal stories from the tree planting years of the 1950s, 1960s and early 1970s.

What to expect: Step back in time and imagine what it was like to venture out into the Burn as a tree planter. Planters knew their work would make a difference that would last a lifetime. Find photographs of the planting seasons in the late 1940s. Explore the challenges and innovations resulting from planting the Burn. Listen to or read the stories of visionaries and volunteers who helped reforest the Tillamook.

Exhibit highlights:

1. **Tree planters' tent**—complete with bed, lockers and a stove
2. **Changing Landscape Theater**—audio/visual exhibit
Topics include:
 - ◆ Before the Tillamook Burn
 - ◆ The six-year jinx: fires from 1933-1951
 - ◆ Transportation routes: past & present
 - ◆ In the wake of fire: salvage logging
 - ◆ Results of reforestation
 - ◆ The Tillamook State Forest today
3. **Tree planter tools**—planting bag, shovels and tools, shortwave radio
4. **"Tree Planting Stories"** (audio station)—Stories of people recalling the rehabilitation effort:
 - Governor Tom McCall—dedication speech
 - Governor Earl Snell—fire prevention
 - Viviane Simon-Brown—student tree planter
 - Ed Schroeder—district warden
 - Larry Fick—rehabilitation assistant at Oregon Department of Forestry
 - Governor Charles Sprague—calls Oregonians to action
5. **Memory Board**—hand written memories from Center visitors

Example questions / activities for students:

- Finish the statement, "Don't plant them fast, _____". Explain why this might be important.
- How many trees were planted by hand during the reforestation period?
- How much money could a tree planter earn in 1936 for one month's work?

Forests of Today and Tomorrow

Purpose: The Forest of Today and Tomorrow highlights the current Tillamook State Forest as a result of the reforestation effort. The Oregon Department of Forestry aims to create a more diverse forest to provide Oregonians with social, economic and environmental benefits for today and tomorrow.

What to expect: In this section, students can view fish in their underwater habitat. Discover how the forest affects people's everyday life and product choices. See stages of forest growth and open their corresponding drawers to reveal forest treasures. The Forest Challenge computer game puts you in a forester's boots to consider complex forest challenges and make decisions for the future.

Exhibit highlights:

1. **Stream model**—Features replicas of salmon, eggs, and other river life
2. **Riparian magnet game**—Match and place plants and animals in their proper habitat
3. **Forest Challenge video & audio game**—Questions regarding management, recreation, etc.
4. **Information panels** —Management, recreation and sustainability
5. **Tree Size & You**—Compare your height to that of a Douglas-fir tree
6. **Forest landscape models**—Five different stages of forest growth and development
7. **Forestland ownership panel**—Who owns Oregon's forest land?

Example questions / activities for students:

- Compare yourself to the height and age of a Douglas-fir.
- Find a forest flower (inside the drawer) and describe the forest environment in which it was found.
- Choose one of the forest models, open the wildlife drawer and draw a food chain.
- How many different types of wildlife do you see in the different forests? What habitat component is being provided in each stand type?
- Find something that you use everyday that comes from a forest.
- What is a riparian zone? What animals would you find there?

Additional Information

Sustainable Building Products

The Center uses sustainable elements inside and outside the building.

Architect: The Miller/Hull Partnership, LLP (Seattle, WA)

Interpretive Designer: Aldrich Pears Associates (Vancouver, BC)

Landscape Architect: Walker Macy (Portland, OR)

Contractor: Precision Construction Co. (Portland, OR)

Building size=13,500 square feet (modeled after a historic saw mills found on the Tillamook State Forest long ago)

Responsible water management

The design of the site helps insure there will be no increase in the rate or quantity of storm water runoff from the site, causing no negative impacts to water quality in the Wilson River.

Pond

- Holds 65,000 gallons; rainfall from the roof is collected in the pond.
- Pond water is used to cool the building, flush toilets, and supply the fire sprinkler system
- The pond is also potential wildlife habitat and a beautiful place to relax.

Using rain water to flush toilets saves about 100,000 gallons of drinkable water every year.

Wood Pellets

- Wood pellet silo (on west side of the building) holds 13 tons. Wood pellets are transported to the Center 3 times per year.
- Wood pellets [made from 100% Douglas-fir wood waste by a company in Oregon: West OR Wood Products, Columbia City, OR.

It is estimated the Center will use approximately 36 tons of pellets per year to heat the building. Ash generated by burning 3 silos' worth of wood pellets is approximately 50 gallons.

Carpet

- Made by a company [Interface, Inc.] that took a stand with their own company operations as well as the products they produce to be completely sustainable by 2020.
- Made up of recycled nylon and environmentally sensitive dyes; individual tiles can be replaced after wear and tear (reduces the need to pull out the entire carpet), and company guarantees it will recycle used tiles.
- All Interface products meet requirements of indoor air quality criteria put forth by the Carpet and Rug Institute "Green Label Plus" [establishes a maximum concentration level for a number of "chemicals of concern"], which fulfills CHPS requirements as well.

www.interfacesustainability.com

Linoleum Flooring

- Called Forbo marmoleum [a composite of linseed oil from flax, wood dust, pine rosins, natural pigments, with a woven jute backing], this product can be composted at the end of its life. It is used for non-carpeted resilient flooring in our classroom, bathrooms, and other non-gallery spaces. www.themarmoleumstore.com

Wood Products

- Trees harvested on the site now serve as benches and picnic tables on site.
- All of the building framing materials (2x4's – 2x12's) were grown, harvested and milled less than 30 miles from the Center.
- Parallam is made of pieces of scraps from dimensional wood production that are chopped and tumbled with adhesives, then formed under high pressure into beams.
- Other products used in the Gallery include Oriented Strand Board (OSB), which looks like "disoriented" strand board because the smaller chips appear to not be oriented in the same direction as the larger pieces in the Parallam product
- Microllam [laminated veneer lumber or LVL]; plywood with many high-quality veneer layers and hardwood outer layers that can be stained, painted or given a clear finish.

Energy efficiency

- The building has been designed to be 30% more energy efficient than code with a goal of using "fossil fuel free" energy throughout.
- The center is one of the only facilities of its size and type in North America heated by wood pellets. Pellets are made from material that was once considered waste in the wood production process.
- There are three boilers [made in Denmark by H S Tarm] that burn wood pellets
- Natural daylight is used to meet 50% of the building's average lighting needs for day lit spaces. Natural ventilation is used, including 100% outside air wherever possible in the building.
- Energy-efficient fluorescent lamps turn on and off when people enter/exit rooms to conserve energy.

Example questions / activities for students:

The answers to these questions can be found on the information signs on the walls inside the building. Ask a staff person for their location.

- What is the definition of sustainability?
- How are the wood beams sustainable?
- How is the water in the pond used?
- Where does the water from the pond come from? How is it collected?
- What are the ingredients of the carpet? What are the ingredients for the linoleum?
- What's in the walls?

Example Schedule

Based on class size of 30 students— 4 groups

Self-guided experience

10:00		Arrive at Tillamook Forest Center & bathroom break	
10:10-10:20		Welcome from Tillamook Forest Center staff Divide students into groups with adults	
TEACHER: Adult leaders should each have a copy of your schedule, student rules, maps of hall & Center Students should have: water bottle, lunch, backpack, clipboards & pencils and materials to work on while learning at the Center.			
10:30-10:45 MOVIE OPTION: <i>LEGACY OF FIRE</i> (all students together)			
Group	10:45-11:45	Leaders (students)	Activity suggestions
1	Hike on Wilson River Trail or explore on-site trails / signs	(insert adult leader’s name)	<i>Outside</i> Scavenger hunt sheets, nature journaling, plant identification
2	Hike on Wilson River Trail or explore on-site trails / signs		
3	Fire Lookout Tower / Exhibit Hall		<i>Inside exhibit hall</i> Worksheets or scavenger hunts *create your own or use TFC
4	Exhibit Hall / Fire Lookout Tower		
11:45-12:15 LUNCH <i>*on bus / outside at picnic tables / under TFC bridge / bus stop</i>			
Group	12:15-1:20	Leaders	Activity suggestions
1	Fire Lookout Tower / Exhibit Hall		<i>Outside</i> Worksheets or scavenger hunts *create your own or use TFC
2	Exhibit Hall / Fire Lookout Tower		
3	Hike on Wilson River Trail or explore on-site trails / signs		<i>Inside exhibit hall</i> Scavenger hunt sheets, nature journaling, plant identification
4	Hike on Wilson River Trail or explore on-site trails / signs		
1:20-1:25 Board bus and depart			