

Fossils and Geology

Program Information

The rocks and fossils at Hancock tell a fascinating story about the plants and animals that used to inhabit Central Oregon. During the week at Hancock, learn how to decipher the clues of Oregon's geologic past. Discover ancient Oregon through fossils located in the area. Visit the John Day Fossil Beds National Monument. Discover how minerals make up rock, how fossils are made, how rock is eroded into canyons, and what stories are locked inside the hills.

In addition to exploring canyons, caves, and rim-rocks, there will be many other activities that make spending a week at Hancock exciting. Polish thundereggs, learn about the unique plant and animal ecology of this semi-arid land, learn the difference between paleontology and archaeology, swim in the shallows of the John Day River, and gaze through the telescope at the starry skies. Prepare yourself for a week of investigation and fun!

Course Syllabus

OBJECTIVES: Academic and outdoor training goals

- ◆ To realize the importance of careful scientific study of fossil locales and archaeological sites
- ◆ To gain an understanding of the process that field paleontologists use
- ◆ To gain a better understanding of Oregon thousands to millions of years ago
- ◆ To increase the student's ability to observe and understand the natural world

ACTIVITIES: Hands on learning in the field

- ◆ Explore and investigate several Central Oregon geologic formations and fossil locales
- ◆ Learn about the function of bone shapes in present day animals, and compare them to those in the fossil record
- ◆ Practice paleontological field techniques
- ◆ Polish thundereggs and practice safety in the lapidary shop
- ◆ Find and identify leaf fossils

SCIENTIFIC CONCEPTS: Scientific Principles to be introduced

- ◆ Processes of fossilization
- ◆ Past climates, how to determine and describe temperature and moisture changes through the fossil record
- ◆ Plant adaptations through time
- ◆ Human uses of stone
- ◆ Oregon's geologic history: concepts of stratigraphy, formations, and rock classification

SAMPLE DAILY SCHEDULE* **Fossils & Geology**

6:30 a.m.	Optional morning walk
7:00 a.m.	General camp wake-up
7:30 a.m.	Breakfast
9:00 a.m.	Field activities (Lunch included)
1:00 p.m.	Rest & relaxation
2:00 p.m.	Swimming
3:15 p.m.	Snack
3:30 p.m.	Interest groups
5:00 p.m.	Recreation and free time
6:00 p.m.	Dinner
7:15 p.m.	Evening activity
8:30 p.m.	Campfire
9:15 p.m.	Return to cabins, prepare for bed
9:30 p.m.	Lights out/ optional observational astronomy

***ALL SCHEDULES ARE SUBJECT TO CHANGE**

Programs that are partly or entirely field-based will follow a unique schedule each day, depending on the activities planned. Drive times between field sites and campgrounds will include stops for short hikes and games, meals, and bathroom breaks.

TECHNOLOGY AND COMMUNICATION

Cell phones are not allowed on any OMSI Science Camp program. Cell phones are too easily lost or damaged. Campers have an excellent support system at camp including their fellow campers, the counselors, the instructional staff, and the lead staff. We will ensure that any necessary communication between parents/guardians and campers can take place through the main phone at each site. Instructional staff carry cell phones during transportation and on off-site programs for emergency purposes only. An important part of the camp experience is for each camper to gain independence, develop greater resilience, and enjoy the unique opportunities offered by OMSI Science Camps without technological distractions. We are grateful for the trust parents and guardians put in our staff to care for each camper, and we appreciate the time taken in discussing this important issue with your camper before his or her program begins.

Digital cameras are allowed, but remember that, at camp, things can easily be lost or damaged. We recommend single use cameras or film cameras. Please keep in mind cell phones with cameras will not be allowed.

For the safety of your child and OMSI Science Camps staff, we strongly discourage our staff from having contact with your child after camp since we cannot supervise it. Making new friends is one of many positive outcomes of OMSI Science Camps programs, and campers who want to stay in touch with each other may exchange phone numbers, addresses, or e-mails. Please understand that any communication between your child and another camper or a staff member after the camp session is over is the responsibility of the camper's parent or guardian to oversee.

If your child would like to contact a staff member, then email a letter to: hancock@omsi.edu.

Equipment List

- SLEEPING GEAR: _____ sleeping bag
_____ pillow with pillowcase (optional)
_____ sheet (optional)
_____ pajamas
- FIELD EQUIPMENT: _____ 2 water bottles (1 quart/liter each)
_____ flashlight or headlamp
_____ bound notebook, pencils, and pens
_____ daypack with straps
_____ sack lunch for the first day
- CLOTHING: _____ boots (sturdy, comfortable, well-fitting and broken in)
_____ boot socks (3 pair minimum, 1 slick pair for blister protection)
_____ 3 pairs long pants (1 jeans and 2 lightweight, light-colored)
_____ 1 or 2 pairs of shorts
_____ 3 shirts, 1 long-sleeved, 2 short-sleeved
_____ adequate underwear
_____ jacket
_____ warm layers
_____ rain gear (jacket w/hood & pants, or poncho)
_____ bandannas or handkerchiefs
_____ broad-brimmed or billed hat for sun protection
_____ swimsuit
_____ tennis shoes or sport sandals for camp
- PERSONAL GEAR: _____ sunglasses
_____ toiletries: soap and container, toothbrush/toothpaste, comb/brush
_____ wash cloth and towel
_____ sunscreen (SPF 15 or SPF 30)
_____ lip balm with sunscreen
_____ personal hygiene items

ALL CLOTHES AND EQUIPMENT SHOULD BE MARKED WITH THE PARTICIPANT'S FULL NAME. OMSI IS NOT RESPONSIBLE FOR LOST ITEMS.

PLEASE DO NOT BRING SNACKS OR CANDY

(rodents enjoy searching cabins for food).

**NO ELECTRICAL EQUIPMENT SHOULD BE BROUGHT
(CELL PHONES, CD PLAYERS, RADIOS, BLOW DRYERS, COMPUTER GAMES, ETC.)**