Participants will delve into the deep history of Oregon, searching for ancient fossils beneath the surface, buried in rock. We will be learning about state-of-the-art paleontological techniques from professional paleontologists while participating in the Paleontology Research Team. Take a trip to Hancock Field Station in the heart of the John Day Fossil Beds National Monument on a hunt for fossils and evidence of prehistoric life. Continue on around the expanse of Eastern Oregon on a 2-week expedition in search of new fossil discoveries! Working with the researchers, be prepared for real digging and working with scientists in the field. Other highlights will include swimming in the cool waters of the John Day River and enjoying fun and entertaining campfires at night.

Participants will gain an understanding of the regional geology as well as fossil animals, plants and soils of Oregon. Students will be involved in field excavation, laboratory preparation and analysis, preparing fossils for study, and the basics of field geology including stratigraphy and mapping. The team will work in concert with professional paleontologists while also enjoying all the best central Oregon has to offer including rivers, canyons, and cliffs. Participants will work as a team to develop exhibits that will be used at Hancock Field Station for teaching materials after the program ends.

Course Syllabus

OBJECTIVES: Academic and outdoors training goals
♦ To gain an understanding of field paleontology and Oregon geology
♦ To realize the importance of careful scientific study of fossil locals and field techniques
♦ To gain an understanding of the process that field paleontologists use today
♦ To determine changes in paleo-climates using information from fossilized leaves and mammals

ACTIVITIES: Hands on learning in the field
♦ Assist the Bureau of Land Management and National Park Service in on-going vertebrate paleontology research projects in several different locations
♦ Explore and investigate several geologic formations and fossil locales
♦ Identify minerals, gain familiarity of crystal structure, and in-field identification techniques
♦ Collect and identify leaf fossils
♦ Learn about the functional morphology of present day omnivores, carnivores, herbivores and compare to those in the fossil record
♦ Investigate fluvial geomorphology including river dynamics, erosion, and depositional environments

SCIENTIFIC CONCEPTS: Scientific Principles to be introduced
♦ Oregon’s geologic history -- concepts of stratigraphy, formations, rock forming processes
♦ Plant adaptations throughout time and their implications for past climate changes
♦ Introduction to anatomy, present day functional anatomy and how that will aid us in understanding extinct animals
♦ Proper use of field notes, aerial photography, data collection, specimen handling, cyclic prospecting, data analysis, and scientific procedure
SAMPLE DAILY SCHEDULE*
Paleontology Research Team

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)
2:00 p.m. Rest hour
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

*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

Please note that this trip includes a camp-out, students should bring a warm sleeping bag and sleeping pad of their own, and a two or more person tent if they have one.

SLEEPING GEAR:  
_____ sleeping bag  
_____ sleeping pad  
_____ tent  
_____ 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  
_____ two or more person tent  
_____ mess kit (plate, bowl, cup, fork, and spoon)  
_____ 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  
_____ warm layers: hat, gloves, scarf, long-underwear etc.  
_____ jacket  
_____ 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  
_____ insect repellent

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  
(rods enjoy searching cabins for food).

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