

# Osborn 4<sup>th</sup> Grade Field Days at BBR—Fall 2009

## Field Day 1—Sense of Place—September 22 & 24

**9:00 – 9:40 or 12:00 – 12:40**—Whole class—Inside

- Calculate map scale on several WA maps—25 minutes
- Review use of digital cameras—15 minutes

**9:45 – 10:25 or 12:45 – 1:25**—Outside in groups of 4-5—40 minutes

- Calculate map scale and fill in landmarks on BBR sector maps
- Collect leaf samples from tagged trees & shrubs
- Photograph trees & shrubs
  - Whole tree or shrub
  - Branch showing leaf orientation (alternate or opposite)

**10:25 – 11:15 or 1:25 – 2:15**—Inside—40 minutes

- Classify collected leaves from trees and shrubs using
  - Laminated leaf samples
  - Field guides
  - Photographs (uploaded to laptop computers)

***Note to Teachers:** Please teach your students about leaf characteristics after field day 1 and before coming to BBR for field day 2. This is important pre-learning for the lessons on dichotomous keys.*

## Field Day 2—Getting to Know Your Watershed—September 29 & October 1

*Mr. Lawless (AM) & Mr. Hassinger (PM)—Tuesday  
Mr. Camp (AM) & Mrs. Davies (PM)—Thursday*

**9:00 – 9:30 or 12:00 – 12:30**—Whole class inside the Barn

- Use leaf characteristics to create a dichotomous key for trees & shrubs—30 minutes

**9:30 – 10:10 or 12:30 – 1:10**

Session A—Watch pH demonstrations and learn about the pH scale—in the Barn—20 minutes

Session B—Use a watershed model to understand non-point source pollution—on the Barn deck (with Wild Fish Conservancy staff)—20 minutes

**10:15 – 11:15 or 1:00 – 2:15**—in BBR sector 5 near the Wenatchee River

Session A—River & salmon observations (WFC)—25 minutes

Session B—Water Quality Testing—25 minutes

- dissolved oxygen
- pH
- temperature
- turbidity

### **Field Day 3—What's Out There? Part I—October 6-8**

**9:00 – 9:20 or 12:00 – 12:20**—Get socks & boots on and walk to Waterfront Park

**9:20 – 10:30 or 12:20 – 1:30**

Session A—Macroinvertebrates in the Wenatchee River—35 minutes

- Wade into a shallow area near the middle of the river in boots
- Use kick nets to uncover insects in the gravelly substrate
- Use forceps to place animals in observation trays

Session B—Document discoveries with a digital camera in a scavenger hunt—35 minutes

- Plants, algae, and fungi
- Animal remains (e.g. scat, tracks, bones, feathers, nests)
- Insects
- Other animals (e.g. mammals, birds, fish, spiders)

**10:40 – 11:15 or 1:40 – 2:15**—Study live macroinvertebrates in the Barn—35 minutes

- Observe macroinvertebrate characteristics under flex-cam
- Use interactive (Internet) dichotomous key to classify macroinvertebrates
  - stoneflies & mayflies
  - caddisflies
  - other

## **Field Day 4—Using Tools of the Poet and Scientist to Investigate and Describe the Natural World—October 13 & 15**

Session A—Inside—60 minutes

Observe and record some physical & behavioral characteristics of *eight live vertebrates and invertebrates*

- Hissing cockroach—arthropod (insect)
- Goldfish—fish
- Guinea pig—mammal
- Leopard gecko—reptile (lizard)
- Rose-haired tarantula—arthropod (spider)
- Fire-bellied toad—amphibian (frog)
- Red-eared slider—reptile (turtle)
- Giant millipede—arthropod (millipede)

Session B—Inside—60 minutes

- Use stereoscopes and photo ID cards to classify *live macroinvertebrates*—30 minutes
  - caddisflies (two kinds)
  - stoneflies & mayflies
  - worms & minnows
  - craneflies & midges
- Write *haiku* about experiences with living organisms at BBR—30 minutes

## **Field Day 5—What's Out There? Part II—October 21 & 22—on Blackbird Island**

Session A—Observe *salmon spawning* on the Wenatchee River—35 minutes

- Survey river habitat
- Use binoculars to observe fish & bird behavior
- Record observations and impressions in journal pages

Session B—Learn about native, riparian, broadleaf *trees & shrubs* in Waterfront Park—35 minutes

- Use a dichotomous key to identify several species of tree/shrub
- Use leaf characteristics vocabulary to describe and draw a leaf

Session C—Introduction to using *telemetry* to monitor fish populations—35 minutes

[Field Days 4 & 5 transposed this year due to unseasonably cold & rainy weather]