

## **Education Activities**

<u>Bosque Ecosystem Monitoring Program</u> Science, Education & Stewardship

## ◆ - in the classroom ◆ - in the field

~ a classroom visit time of 1- 1.5 hours is recommended ~

Due to the nature of BEMP fieldwork, our education team also recommends that those classrooms participating in our <u>monthly monitoring</u> program incorporate our 'in the classroom' programs in the order in which they are listed OR in the manner they best match with your class curriculum.

www.bosqueschool.org/bemp.aspx

- ◆ <u>BEMP Basics</u> an introduction to BEMP and the bigger picture; students learn about ecosystem dynamics, monthly monitoring, equipment and make a map of their UNM field-site
  - ~ focus on: groundwater wells, precipitation gauges, leaf-litter fall
  - ~ appropriate for grades 2-12
- **Bosque Botany Bonanza** discuss the concepts of 'native' and 'exotic' producers, share cuttings of real bosque plants and make a field journal with taping, rubbings & scientific descriptions for future field expeditions
  - ~ limited to: summer, fall and late spring for fresh cuttings
  - ~ focus on: cottonwood, willow, salt cedar, Russian olive, etc.
  - ~ appropriate for grades K-12
- <u>River of Change</u> students learn how the middle Rio Grande watershed has changed over the last 2000 years with this hands-on Bosque Education Guide (BEG) activity
- ~ rio bravo: topography, native plants & animals, historic communities
- ~ rio manso: levees, ditches, jetty jacks, exotic plants & animals, population ↑
- ~ rio nuevo: restoration, management, water resources & citizen science
- ~ appropriate for grades 3-12
- <u>Aquifer Model Madness</u> learn how water moves on planet earth & methods to conserve it, explore a model of the Rio Grande landscape make a mini aquifer to take home
  - ~ focus on: the water web, groundwater/surface water, infiltration & conservation
  - ~ appropriate for grades 3-12
- ◆ <u>Leaf Litter Lab</u> we'll provide the equipment (scales & guides included) and your students will sort BEMP collected litterfall by species and biomass
  - ~ weight measurements are essential for processing BEMP data for input into our UNM database
  - ~ focus on: plant identification, using scales & data sheet entry
  - ~ appropriate for grades 4-12
- Fauna of the Floodplain engage some of our local bosque animal inhabitants with bio-artifacts like skulls, scat and tracks
  - ~ focus on: adaptations, animal classification & diversity
  - ~ appropriate for grades K-12



- **Stormwater Science** students learn how humans impact the health of the Rio Grande through activities that directly tie us to the surrounding arroyos and watershed
  - ~ focus on: changes to our river during storm events
  - ~ appropriate for grades 4-12, possible throughout the school year
- **Dabbling in Data** discuss monthly monitoring collections & graph data from your BEMP field site, note ecological trends and seasonal changes
  - ~ focus on: shallow groundwater table, graphing, comparison of data points
  - ~ appropriate for grades 4-12
- <u>Creepy Crawly Critters</u> students learn about Entomology & phylum Arthropoda (bugs!), explore BEMP pitfall traps and insect classification with hands-on lab activities
  - ~ focus on: local insect identification, data journaling and sorting
  - ~ appropriate for grades 2-12
- ◆ Bosque BEMP Study-trip visit Bosque School in Albuquerque for a BEMP nature hike and discover our bosque up close and personal (limited funding available for bus transportation)
  - ~ focus on: evidence of animals, native/exotic plants, BEMP monitoring
  - ~ students should bring a pencil & packed lunch to picnic along the Rio Grande
  - ~ students should dress appropriately for varying seasonal conditions & hiking
  - ~ all participants receive a take home field journal
  - ~ teacher should pick transportation times between 9:00am-2:00pm, however schedule IS flexible (group limit of 30 students per trip)
  - ~ appropriate for students grades 3-12



# **Education & Outreach Scheduling**

~ please e-mail or call Audrey Kruse to schedule ~

BOSQUE SCHOOL









e-mail: audrey.kruse@bosqueschool.org phone: 505.898.6388 ext. 151

- ♦ scheduling calendar opens Friday, August 7<sup>th</sup> 2015 ♦
- ◆ field trip & classroom activity availability is based on a first come/first serve basis ◆
  - ♦ BEMP has (limited) funding for bus transportation ◆
- ♦ in-class worksheets and Common Core correlations are available upon request ♦

#### **TEACHERS**

Need Continuing Education Credits ??? Consider taking Bio 408/508L

### **Bosque Internship at UNM**

Offered in Fall, Spring & Summer semesters. Connect with the science and environmental education of BEMP in the COLLEGE classroom!



