2017-18

BOISE ENVIRONMENTAL EDUCATION

CITY-SPONSORED ENVIRONMENTAL EDUCATION PROGRAMS

Explore our wild community, develop a new sense of place, and discover the lessons to be learned from nature.
The City of Boise is dedicated to providing its citizens with opportunities to learn about our unique local environment and ways to live sustainably within it. Boise Environmental Education (BEE) is a multi-agency partnership providing environmental lessons and programs to children and adults. The city departments of Parks & Recreation and Public Works collaborate to bring visitors an assortment of classroom lessons, field trips, regular monthly programs and special events designed to educate, inform, and engage. BEE is made up of the Boise Community Forestry, Boise Urban Garden School, Boise WaterShed, the Jim Hall Foothills Learning Center, Public Works Air Quality Programs, and Zoo Boise.

Each partner offers unique lessons, events, and learning experiences that can be utilized by both the general public and school groups. From the river to the foothills, and the farm to the forest, Boise Environmental Education invites you to explore our wild community, to develop a new sense of place, and to discover the lessons to be learned from nature.

Please contact each center individually to find out about availability for scheduling.
BOISE COMMUNITY FORESTRY

Boise’s Community Forest consists of trees along the streets, in our parks, along the Boise Greenbelt and even in the foothills. This makes for a great natural classroom to experience hands-on science and our natural environment.

Community Forestry is an invaluable resource for tree education. Tree literacy is imperative for the perpetuation of Boise’s community forest and it must start with today’s children. We are excited to assist and compliment your lesson plans in a variety of ways on any tree-related topic, from tree biology to tree identification!

TREES:
- Free
- Year-round
- Debbie Cook • dcook@cityofboise.org
- parks.cityofboise.org/community-forestry

TREE LITERACY
K–12 GRADE / 30–60 MINUTES / YOUR PLACE
Boise Community Forestry has a series of flexible, tree-related educational opportunities that can be tailored to different audiences, interests and needs:

LECTURES - Tree structure, function, and biology; tree identification; tree care; tree pests and more
ACTIVITIES - Crafts, plant personification game, tree identification and more
LITERATURE - Preschool through high school literary sources, both science-based and those just for fun
PROJECTS - Tree tours, tree planting and more

TREE WALKS
K–12 GRADE / 30–60 MINUTES / OUT AND ABOUT
Boise Community Forestry conducts tree walks on your school grounds, in a nearby park or in one of the larger parks in Boise. These walks are conducted when trees are in leaf by one of our local arborists. There are also self-guided tree walks available; contact us for a guide.

WINTER TREE IDENTIFICATION
9–12 GRADE / 30–60 MINUTES / OUT AND ABOUT
During a winter walk, students will learn which characteristics to look for in identifying winter’s leafless trees. Distinguishing features such as bud arrangement, shape and color of buds, shape and color of leaf scars and color and structure of tree bark will be covered by one of our local arborists.

BOISE PUBLIC WORKS

Boise Public Works developed youth and adult environmental education programs starting in 1992. We offer mini-grants of up to $500 to youth leaders, community groups, service organizations, schools, and nonprofits for hands-on environmental projects that empower young people. Our EnviroGuard Sustainability Awards recognize Boise businesses, organizations and individuals who are reducing their environmental footprint. Boise has the distinction of being the longest designated Groundwater Guardian Community by The Groundwater Foundation.

AIR QUALITY
K–12 GRADE & ADULTS / 30–60 MINUTES / YOUR PLACE
Programs can cover the following topics: How air pollution is measured, health and other effects of air pollution, sources of pollution, how to reduce air pollution, acid rain, local issues and atmospheric chemistry.

ENVIRONMENTAL PROGRAMS
K–12 GRADE & ADULTS / 30–60 MINUTES / YOUR PLACE
Staff experts provide classroom and community presentations on subjects such as groundwater protection, water conservation, trash and recycling, waste reduction, composting and geothermal energy.
BOISE URBAN GARDEN SCHOOL
The Boise Urban Garden School (BUGS) program utilizes an organic garden as the foundation for learning. BUGS teaches youth and adults the fundamentals of gardening though science, health and environmental based lesson plans and activities that are aligned with Idaho Content standards, and Boise School District Science Standards. BUGS understands that students who are able to dig in the soil, plant seeds, and watch them grow become engaged learners and excited to eat the fruits of their labor. They will better comprehend the science behind healthy soil, sprouting seeds, photosynthesis and more!

SCHEDULING
We welcome field trip and outreach lesson requests for groups of 10 to 50 people from school teachers, after school programs and other organizations. Reservations must be made two weeks in advance and fees are due prior to or on the day of the lesson. To schedule a lesson, please submit a request form via our website and feel free to call for availability.

EVENTS

FALL COMPOSTING PRESENTATION FREE!
ADULTS
Join us for an evening presentation that covers how to reduce waste and improve your garden’s soil through home composting. We present this in conjunction with the University of Idaho and one of their Master Composters.

BUGS BARN DAYS FREE!
1ST SATURDAYS / JANUARY – MARCH
Garden themed programming for families and adults offered during the winter season when our colorful world turns monochromatic and our gardens are sleeping.

JUST ADD WATER
TEACHERS
BUGS in partnership with the University of Idaho Extension Office offers this very popular annual Teacher Workshop.

BUGS PLANT SALE
1ST SATURDAY AND SUNDAY IN MAY 2018
Join us for our annual plant sale to benefit the BUGS education programs. Garden vegetables, edible and pollinator friendly plants will be available for purchase.

SERVICE & VOLUNTEERS

TEENS IN THE GARDEN (TIG)
SUMMER SERVICE OPPORTUNITIES
High School Teachers!!! The Boise Urban Garden School will be cultivating our second crop of summer service teens and we’d like you to share this opportunity with your students! The BUGS Teens in the Garden summer service program will help support our partnership with three school based community center gardens at Grace Jordan, Morley Nelson and Whitney elementary schools and in the BUGS education garden. This eight-week service program is for incoming 9-12th grade students. Call 208-376-3006 for more information.

VOLUNTEER OPPORTUNITIES FOR THE PUBLIC
Visit the City of Boise’s volunteer pages. parks.cityofboise.org/vo-learn-teer

COST: $30/class/hour. Prices increase with the length of the lesson. Class size = 10 to 30 students.

DAYS: Tuesday afternoons, Wednesday and Thursday mornings & afternoons, Friday mornings.

Times: 10 AM or 1 PM

CONTACT: 208-376-3006
(TDD/TTY 800-377-3529)

BUGS@cityofboise.org

FACILITY ADDRESS:
2995 N. Five Mile
(in Comba Park) at Ustick Rd.
EDUCATION

FIELD TRIP LESSONS

K-6 GRADE (SEPTEMBER, OCTOBER & APRIL THROUGH MAY):

INSECTS AND POLLINATORS
K-1 GRADE / 60 MINUTES
Insects and pollinators are very important to gardens and people. Students will learn how and why pollinators turn flowers into food. Activities may include comparing the structure of insects and bugs, going on a garden bug hunt, and playing a game that models pollination.

SEEDS
K-2 GRADE / 60-90 MINUTES
What's inside a seed? Students will dissect and learn about seed “anatomy” and why they come in so many different sizes and shapes (seed transport and dispersal). Students may set up a germination experiment to take back to school that will demonstrate what seeds need to grow.

PLANT GROWTH AND PARTS
K-2 GRADE / 60-90 MINUTES
Students will learn about plant structure and function, lifecycles and what most plants need to grow. Scavenger hunts and other activities will inspire students to become “plant detectives” as they hunt for and find the garden’s diverse botanical residents. They’ll discover that some plants are sprouting, flowering, fruiting or going to seed and we commonly eat a variety of plant parts for breakfast, lunch and dinner.

OUTREACH LESSONS

K-6 GRADE (NOVEMBER THROUGH FEBRUARY):

ALIVE & GREEN
K-1 GRADE / 60 MINUTES
This lesson is designed to introduce students to plants as living organisms, as well as teach about their structures and functions. This lesson will use multiple activities to familiarize students with the basic structures that can be found in most vascular plant life (roots, stem, leaves, and flower). Students will also learn what is necessary for plants to live (light, air, water, and soil).

HOW PLANTS GROW
2-3 GRADE / 60 MINUTES
In this lesson students will learn what the minimum requirements are for plant growth. Through a costume dress-up activity students will then learn about the basic parts of a plant and what each part does to help it function and produce seeds. Students will also get to build a simple experiment and grow their own plant from seed.

SOIL, COMPOST & CRITTERS
3-5 GRADE / 90 MINUTES
A successful garden begins with healthy soil. Students will become “soil scientists”, learning about how healthy soil supports plant growth. Activities may have students investigating soil composition, nutrient cycles, decomposers (red worms & others), and the process of recycling waste into compost for the garden.

THE GARDEN ECOSYSTEM
5-6 GRADE / 90 MINUTES
When we practice organic gardening we are taking the health of the whole garden ecosystem into account. Students will investigate what it means to garden organically and how the introduction of chemicals into our gardens can impact the whole ecosystem that supports our garden’s growth and health.

OUTREACH ACTIVITIES FOR THE PUBLIC
(Based on staff availability)
Dive into water protection and conservation at the Boise WaterShed Environmental Education Center! Boise WaterShed is located at the West Boise Water Renewal Facility, adjacent to the Boise River, ponds and nearby Hyatt Wetlands. The interactive exhibit hall contains high-tech exhibits that educate and entertain. The 2-acre outdoor River Campus simulates a journey through our watershed from the headwaters to the Snake River using public art and a simulated Boise River in a park-like setting.

FREE tours and lessons are aligned to Idaho Content Standards and engage groups in hands-on activities, demonstrations, science experiments, art and outdoor education.

Outreach programs for the cities of Boise, Garden City, Meridian and Eagle are also offered at no charge. Reservations for groups of ten or more must be made at least two weeks in advance.

TOURS

**EXHIBIT HALL TOUR**
PRE-K — ADULT / 30–60 MINUTES / BWS
Tailored to every grade level. Students will be introduced to the term “watershed” using the Boise River watershed wall map then explore touch-screen exhibits about water in the interactive exhibit hall to learn how to protect and conserve our precious water resources. An optional scavenger hunt may be included.

**WASTEWATER TREATMENT PLANT TOUR**
4 GRADE — ADULT / 60 MINUTES / BWS
During this popular outdoor walking tour, students will see and smell the step-by-step process of wastewater treatment and learn how to help protect our water quality. Sustainable processes from the microorganisms to the methane and biosolids farm will be presented. Come see why we’re #1 in treating #2! Closed-toe shoes required.

**NEW! PUBLIC ART EXPERIENCE**
4-12 GRADE / 60 MINUTES / BWS
Did you know the Boise WaterShed has the largest collection of public art in the state of Idaho? Experience an in-depth tour of the indoor and outdoor art works. Hear how the concepts were developed and why artists chose the subject and materials for their work. Then explore your creative side with an art project inspired by one of the works. Choose from paper mosaics, beaver dam scratch art, or watercolor aquatic habitats.

**NEW! RIVER CAMPUS TOUR**
PRE-K — ADULT / 30–90 MINUTES / BWS / MAR–OCT
Be one of the first to experience the River Campus! This walkable interactive tour on two acres in front of the education center tells the story of our watershed through integrated public art, water, and landscaping. See water cascading from the headwaters, where it flows into Lucky Peak Reservoir. Visitors can manage the water flowing from Lucky Peak Dam and stroll past the City of Trees. Follow the flow of the river, past artistic wildlife, agricultural areas and wetlands. Visitors will have a better understanding of the Boise River watershed, seeing how our actions upstream can affect the ecosystem and others downstream.

Pre-K–6th grades may want to visit the River Campus interactive trail. Utilizing the concepts of nature play, the trail will engage students to play, construct, and create art to learn about the ecosystem. Tour content and length can be adjusted for all grade levels.

**COST:** Free
**AVAILABILITY:** Year-round, Monday–Friday 9:30 AM–4:30 PM
**CONTACT:** (208) 608-7300, BW@cityofboise.org
**FACILITY ADDRESS:**
West Boise Water Renewal Facility
11818 West Joplin Rd, Boise
BEE.cityofboise.org
**FISHING FOR FUN**  
PRE-K & K / 60 MINUTES / YOUR PLACE OR OURS  
Based upon Project WILD for Early Learners curriculum, students will discover who lives in Idaho rivers! Students will learn the parts of a fish while making a fish craft, hear a story about salmon, and become salmon in an interactive game as they use their noses to find their way home.

**WATER DANCE**  
PRE-K & K / 60 MINUTES / YOUR PLACE OR OURS  
Students will learn how water moves around the Earth through a felt board activity and interactive game, where students travel the water cycle. They’ll make water cycle bracelets and dance to “The Water Cycle Boogie!” Finally, we’ll end with a story and activity about why saving water is so important.

**GET IN TOUCH WITH NATURE**  
PRE-K — 3 GRADE / 60–90 MINUTES / BWS / MAR–OCT  
Walking a half-mile to the Boise River from the center, students will use their senses and participate in hands-on activities to learn about local wildlife in the riparian zone. Students will look for signs of wildlife using binoculars, create a sound map, and explore natural objects in mystery bags.

**WONDERFUL WATER CYCLE**  
K–3 GRADE / 60 MINUTES / YOUR PLACE OR OURS  
Discover how water moves around the world as we cook up the water cycle and introduce terminology. Students will play a game called The Incredible Journey to simulate a water drop traveling to oceans, lakes, clouds, and more. At the conclusion, students will dance to “The Water Cycle Boogie.”

**WATER CONSERVATION: EVERY DROP COUNTS**  
K–6 GRADE / 60 MINUTES / YOUR PLACE OR OURS  
This lesson will be modified for your grade level. Beginning with an activity that demonstrates how little fresh water is on the blue planet, students will understand how precious water is. Students will learn how water is used in homes, schools and communities, as well as how to save water during daily activities such as taking a shower or brushing teeth.

**WEATHER SCIENCE**  
2–6 GRADE / 60 MINUTES / YOUR PLACE OR OURS  
Get to know weather and seasonal changes in Idaho! Students will learn about air and water molecules through several experiments, including the can crusher. Second and third graders will learn about seasonal changes in weather, be a meteorologist for the day and play a weather game to share their knowledge. Fourth through sixth graders will learn the difference between weather and climate and will go outside to make cloud and weather observations.

**EXPLORE YOUR WATERSHED**  
3–6 GRADE / 60 MINUTES / YOUR PLACE OR OURS  
Students will discover that we all live in a watershed by participating in a mapping activity. Then, using a model, we’ll demonstrate sources of pollution specific to the Boise River and how our actions can affect those who live downstream. Students will take home helpful tips for protecting our watershed.

**SNOW SCIENCE**  
4–6 GRADE / 60 MINUTES / YOUR PLACE OR OURS  
Students will be introduced to snow science through hands-on activities. Students investigate snow on a molecular level and create magnetic water molecules to demonstrate phases of water. Students will understand how snow pack provides water to people in the Treasure Valley and demonstrate what a watershed is through a paper activity.

**WASTEWATER: WE TREAT IT RIGHT!**  
4–8 GRADE / 60 MINUTES / YOUR PLACE OR OURS  
Students will work in teams as wastewater engineers to clean up a sample of simulated wastewater. Together they will test and analyze several treatment methods in an attempt to make it clean.  
**Recommended:** Follow-up tour of the wastewater treatment plant.

**THE H2O BELOW**  
4–8 GRADE / 60 MINUTES / YOUR PLACE OR OURS  
Get to know groundwater and its important role in our water supply. Students will work in teams to build a model aquifer to understand the types of substrate that water moves through. They’ll discover how water cycle cousins, groundwater and surface water, interact as students infiltrate water and “pollution” through an aquifer model. Students will learn how to protect our groundwater and prevent pollution.

**MICROORGANISMS: WHAT’S THE BIG IDEA?**  
4–8 GRADE / 60 MINUTES / YOUR PLACE OR OURS  
Students will be introduced to microorganisms through a PowerPoint presentation. Students will identify different forms of microbes through microscopes and then explore how microbes are used to improve our lives. Finish with a hand-washing experiment using agar plates to grow bacteria.

**GEOTHERMAL: THE HEAT BENEATH YOUR FEET**  
5–8 GRADE / 60 MINUTES / YOUR PLACE OR OURS  
Get to know the story behind geothermal resources and their important uses in Idaho. Observe mantle convection and learn about the geologic features that make geothermal such an abundant resource in the Western U.S. Finally, build your own geyser to demonstrate what you’ve learned!

**WATER QUALITY FIELD EXPERIENCE**  
4–12 GRADE / 90–120 MINUTES / YOUR PLACE OR OURS  
MARCH–OCTOBER  
Hike to the Boise River (.5 mile walk) to learn about natural and human impacts to water quality. Using water quality testing kits, students will analyze the temperature, dissolved oxygen, turbidity, and pH of the water above and below the treated water outfall. Students will learn about bioassessment as they examine and identify aquatic macroinvertebrates (water bugs). In the end, they will have a snapshot of the Boise River’s health.

**WATER RESOURCES**  
7–12 GRADE / 60 MINUTES / YOUR PLACE OR OURS  
Students will be introduced to our water resources from global to local, and some of the challenges we’ll face in the future. They’ll learn how their daily choices, from food to clothing, impact their water footprint. The lesson culminates in a reservoir management activity to better understand the challenges of water management in the Treasure Valley.
HYATT WETLAND LESSONS
The Hyatt Hidden Lakes Reserve or Hyatt Wetlands (HW) is a 44-acre haven for birds, animals, plants and people located only two miles east of the Boise WaterShed (5301 N. Maple Grove Rd.) The following FREE lessons are offered March–October, but the best time to visit is April–June. Binoculars and equipment will be loaned to students for use during the tours.

WETLAND EXPLORERS
PRE-K — 8 GRADE / 90 MINUTES / HYATT WETLANDS
Students will be introduced to an urban wetland environment through guided hands-on activities at Hyatt Wetlands. Using binoculars and field guides, students will hike through the wetlands while observing signs of wildlife and learning about wetlands functions. Three hands-on activities will be presented based upon one of the following themes:
- Living/Non-living (Grades Pre-K–1)
- Animal Adaptation (Grades Pre-K–3)
- Wetland Ecosystem (Grades 2–4)
- Food Chains and Webs (Grades 3–5)
- Wetland Mysteries (Pollution and Bioaccumulation) (Grades 4–8)

WETLANDS PHOTO SAFARI
2–12 GRADE / 90–120 MINUTES / HYATT WETLANDS
BEST TIME: APRIL–OCTOBER
Students will explore Hyatt Wetlands through the lens of a camera! Student pairs will be loaned a digital camera to photograph the natural environment as they hike through the wetlands. When the photo safari is over, students visit the Boise Watershed to learn how to protect and conserve water. Photos are downloaded on a CD for the teacher to take back to the classroom.

LIBRARY RESOURCE CENTER
The Micron Technology Inc. Foundation Library and Resource Center at BWS contains books, videos, DVDs, educational software, music CDs, curriculum books, and kits that educators can reserve for their use. Call to reserve these FREE resources for a two-week period. See our complete list of available resources online.

THE FOLLOWING CLASSROOM KITS ARE AVAILABLE:
- ENVIROSCAPE TABLETOP MODELS STORMWATER / WASTEWATER & DRINKING WATER
- GROUNDWATER MODEL
- INCREDIBLE JOURNEY DICE GAME
- WATER HISTORY TRUNK
- WATER QUALITY, AIR QUALITY, AND FISH & FOOD CHAINS KITS
- WATER QUALITY TESTING KITS & MACROINVERTEBRATE PACK

EVENTS & ACTIVITIES
WATERSHED WEEKENDS
3RD SATURDAY OF EACH MONTH / 10 AM–1 PM / BWS
Join us for hands-on activities, interactive exhibits, public art, and presentations the whole family can enjoy! A Wastewater treatment plant tour starts at 11:30 a.m. FREE admission! No pre-registration required for families/individuals but groups of ten or more must call in advance.

SCHOOL BREAK DROP-IN PROGRAMS
CHECK WEBSITE FOR DATES / 10 AM–12 PM / BWS
Drop in to fun children’s programs offered on certain days during Thanksgiving, winter and spring breaks! In addition to the exhibit hall, there are special activities and crafts, and a wastewater treatment plant tour at 11 a.m. FREE admission! No pre-registration required for families/individuals but groups of ten or more must call in advance.

SCHOOL WATER AUDIT
6–12 GRADE / MULTIPLE CLASS PERIODS / YOUR PLACE
Gain a better understanding of water use at home and at school through the school water audit. Students start with a home water use assessment, then work in teams to measure school water consumption both indoors and out. Finally, compile and present data to your school to inspire money-saving changes!

STORM DRAIN AUDIT AND INVENTORY
VOLUNTEER OPPORTUNITY
Help us update/inventory our storm drain data by completing a neighborhood audit. Volunteers will download a free app onto their smart phones or mobile devices and help us update the storm drain records for a comprehensive inventory. Training will be provided for all volunteers. Contact the Boise WaterShed for more information.

TEACHER WORKSHOPS
BWS is a regional host of Project WET workshops and the Adventure Learning summer workshop. Check our web site for specific dates.
The Jim Hall Foothills Learning Center (FLC) is located in the heart of the Boise foothills, surrounded by over 190 miles of trails and 4,000 acres of open space. We seek to connect students with nature through experiential and place based learning, exposing them to the geology, ecology, and biology of the desert-sagebrush ecosystem surrounding Boise. All of our outdoor classroom content is aligned with Idaho Content Standards, Boise School District Science Standards, and provides students the opportunity to see science in action through hands on experiments and guided hikes!

FIELD TRIPS
We welcome field trip requests for groups of 10 to 75 students. Reservations must be made at least two weeks in advance and payment is due the date of the scheduled program. Outreach lessons are free of charge and available for groups within Boise City limits. To schedule a program please submit a “lesson request form” via our website, and feel free to call for availability!

PRESCHOOL AND KINDER LESSONS

TREES AND ME!
60 MINUTES / FLC
Students will learn the parts of a tree and all the things that trees give us – food, shelter, products, clean air. They will explore the similarities and differences between deciduous and evergreen trees, and discover how we can tell how old a tree is! We will finish with a fun tree craft!

TRASH OR TREASURE FREE!
60 MINUTES / YOUR PLACE OR OURS
Students will learn their 3 R's – Reuse, Recycle and Reduce – and the role we all play in taking care of our Earth. They will meet Mr. Yuk and learn what he has to teach us, and understand what can and can’t go into the recycle bin through a hands-on sorting activity.

STORY TRAIL ADVENTURE
60 MINUTES / FLC
Kids will walk our quarter-mile Story Trail and read the book of the month, and then head into the Learning Center to do a story-related craft.

FIELD TRIP LESSONS

BEES AND BUTTERFLIES
1ST GRADE / 90 MINUTES / FLC
Using our indoor observation hive and our outdoor bee-yard and pollinator garden, students will learn about the life cycle of the honey bee, and observe the inner workings of a productive bee hive. They will review the anatomy of a bee and demonstrate their understanding through constructing and labeling their own honey bee. They will come away with an understanding of and appreciation for the important role that bees, butterflies and other pollinators play in our ecosystem.

CAN YOU SEE ME?
1ST GRADE / 90 MINUTES / FLC
This exploration of animal adaptations, including camouflage, and the concepts of predator and prey interactions, will allow students to learn through active games, a scavenger walk, and a story. Students will explore the different strategies used by animals to ensure their survival and even experience trying to camouflage themselves!

GOING TO SEED BEST IN FALL!
2ND GRADE / 90 MINUTES / FLC
This lesson is an in-depth look at the early stages of plant growth and development. Students will explore the different ways seeds are dispersed in nature and demonstrate understanding by gathering, sorting, and classifying the seeds they find outside. They will finish by applying their new knowledge in the design and construction of their own seed.

HOLD YOUR GROUND
2ND GRADE / 90 MINUTES / FLC
Students will learn about weathering and erosion through hands-on activity stations. By exploring the difference between erosion and weathering, what causes each, and how they affect our world, students will understand the link between land, water, and weather. Our “wear it away” hike will let students search for and observe evidence of these processes at work in the foothills.
HABITAT: IT’S FOR THE BIRDS
2ND GRADE / 90 MINUTES / FLC
With binoculars and field guides, students explore different habitats around the Center identifying and learning about the diversity of birds that live here. Emphasis is on elements of habitat and how different birds have different needs and niches in the ecosystem.

NEW! REPTILES + AMPHIBIANS
3RD GRADE / 90 MINUTES / FLC / APRIL - OCTOBER
Students will learn the different life cycles of Reptiles and Amphibians and how to distinguish between them. We'll complete a sorting activity, look at our “reptile traps”, and visit the pond for some Frog spotting! Students will also learn which characteristics develop through heredity and which are learned behaviors.

WISE GUYS WITH NIGHT VISION EYES
BEST IN SPRING!
3–4 GRADE / 90 MINUTES / FLC
This lesson is all about owls and what distinguishes them from other raptors. We’ll listen to owl calls, demonstrate how owls can fly so quietly and how they can see to hunt in the dark. Then we will head outside for a hike and hope to spot some of our resident foothills raptors!

NEW! HIGH DESERT ADAPTATIONS
3–4 GRADE / 90 MINUTES / FLC
Students will explore the specific structures and adaptations of birds and how these relate to survival. They will go on a walk and learn about some of the special adaptations animals in the Sagebrush Steppe ecosystem have, and finally they will act out these adaptations in an Animal Adaptation Relay!

GEOL ogy of the FOOTHILLS
4–5 GRADE / FULL DAY (3 HR TEACHING TIME) / FLC
During this 3-hour field experience, students will learn about ancient Lake Idaho and the unlikely role that water played in shaping our now dry and arid foothills ecosystem. A hike in the foothills provides students evidence of the interaction between the hydrosphere and geosphere.

OUR BOISE FOOTHILLS HIKE—
HISTORY, CONSERVATION, AND OUR BIOME
4–6 GRADE / 90 MINUTES + / FLC
Students will learn the history of the preservation of Hulls Gulch and the power we all have to make a difference in our community. We will hike a ridge for a great view and contrast the dry ridge to the lush riparian corridor along the creek. Students will learn about key plants, animals and geology that dominate our sagebrush steppe ecosystem.

FIRE ECOLOGY
4–6 GRADE / 90 MINUTES / FLC
Students will understand the effects wildfire can have on the local ecosystem and how fire has shaped our Idaho landscape. Students will be introduced to the fire triangle, fire ecology in both forest and sagebrush-steppe ecosystems, and human influences on fire in the West. Through interactive activities and a hike, students will explore fire’s role in nature, noxious weed invasion and the challenges of the urban/wild land interface in our Boise foothills.

FOOD CHAINS AND ENERGY SYSTEMS
5–6 GRADE / 90 MINUTES / FLC
Students learn how organisms interact to form a community and how energy moves through trophic levels starting with the all-important Sun. Using our foothills plants and animals, students will create food chains and understand the interdependence inherent in a food web. They will understand the cycling of energy and nutrients and the role of producers, consumers and decomposers in the process.

FOOTHILLS FIELD INQUIRY
5–6 GRADE / FULL DAY (3 HR TEACHING TIME) / FLC
Working in small groups, students will put the scientific method into action and become field scientists for the day. Equipped with tools and instruments, they will gather and record data from two distinct foothills locations. They will learn the difference between weather and climate, and gain a hands-on understanding of the concepts of microhabitats and microclimates. Students will present and compare their findings, and understand how variables and methods can influence results. (limit of 30 students total)

OUTREACH LESSONS
FREE
Sponsored by Public Works
TRASH OR TREASURE - See pre-school lessons for info

COMPOSTING WITH WORMS
1ST GRADE / 60 MINUTES / YOUR PLACE OR OURS
Students will learn the anatomy and life cycle of the worm, and develop an appreciation for the role worms play in nature. They will understand the basics of backyard and worm composting, and get a hands-on look at a worm bin and the red wigglers and other critters that are busy in the bin.

RECYCLING SOLUTIONS FOR LAND POLLUTION
2–3 GRADE / 60 MINUTES / YOUR PLACE OR OURS
Students learn the importance of “Reduce, Re-use, Recycle and Rethink” and alternatives to throwing things away. Students will gain an understanding of both the impact humans have on the environment, and the difference we can each make in taking care of the Earth. Interactive activities will engage students in learning.

HOUSEHOLD HAZARDOUS WASTE
2–3 GRADE / 60 MINUTES / YOUR PLACE OR OURS
Through hands on activities students will be able to recognize the potential dangers of household products, learn how to read labels, care for products and dispose of them properly.

PAPERMAKING
3–4 GRADE / 60 MINUTES / YOUR PLACE OR OURS
Students compare water and energy usage in recycled paper production vs. paper pulp produced directly from trees. Students will understand the papermaking process and make their own handmade recycled paper; a simple and fun way to connect students to the importance and practicality of conservation! This is a great companion lesson to recycling.
SNOW SCHOOL PRE-LESSON – WINTER WILDLIFE ADAPTATIONS
4–6 GRADE / 60 MINUTES / YOUR PLACE
Students will learn about different strategies that Idaho wildlife use to adjust to winter—hibernation, migration, acclimation and adaptation—and the importance of our open space and foothills habitat to winter wildlife. This lesson also emphasizes the importance of Leave No Trace when visiting Winter wildland areas and incorporates an experiment comparing the insulation effectiveness of materials! This lesson is offered as a pre-lesson for classes going up to the Bogus Basin Snow School.

MONTHLY EVENTS & ACTIVITIES

SECOND SATURDAYS
Family Friendly Nature Program
ALL AGES/ 10 AM -1 PM *UNLESS NOTED
Every 2nd Saturday of the month, except for July and August, FLC invites the Boise community to visit our facility for a fun-filled morning of speakers, crafts, and activities. Each month we learn about a different theme from area experts and encourage visitors of all ages! Past themes have included Honey Bees, Avalanches, Idaho Sky Watching, Sheep in the Foothills, and Animal babies! You’ll have to wait and see what’s in store for this year! Check our website or facebook page for event details.

SUNSET LECTURE SERIES
2ND WEDNESDAY OF THE MONTH / ADULTS / 7-8:30 PM
Join us each month as a scientific expert speaks and provides discussion on a different topic relating to the Boise Foothills, conservation, and stewardship. It’s a great way to engage in scientific learning and connect with other nature-loving folks!

TOUR OF THE RESERVES: A HIKING SERIES
ALL AGES – DATES VARY
Get to know the trails of the Boise Foothills as FLC and Idaho Conservation League team up to offer this hiking series. Eleven reserves are part of the City of Boise’s open space foothills, covering 4,000 acres and 40 miles of trails differing in elevation and accessibility. Learn about the history and plan for these special places! Some months will include short hikes; others will include walking presentations, historical stories, and acoustic concerts. Pre-registration required!

BIRDING WITH TERRY RICH
1ST WEDNESDAY OF THE MONTH / 9-10 AM *UNLESS NOTED
Our dedicated birding expert, Terry Rich, is once again providing his engaging and popular morning bird program free of charge! Each session includes a lecture portion followed by birding in the field. Bird identification books and binoculars can be borrowed. No registration necessary.

STORY TRAIL
Our self-guided story trail is open year round, sunrise to sunset. A new nature-based story is posted monthly! Come with your kiddos and check it out!

ZOO BOISE
Whether you are on a school field trip or youth group adventure, a Zoo Boise field trip offers unique experiences in wildlife, conservation and science. Interactive field trips, teacher workshops and a variety of resources are available for educators who use the zoo as a living laboratory. Book at least two weeks in advance.

“Zoo Boise - Where the act of visiting the zoo is a conservation action.”

COST/SEASON:
Self-guided Tours: Year-round, cost $2.50 per person (restrictions apply)
Guided Tours: School year only, cost varies by program.
CONTACT: Book guided field trips and find more information online at www.zooboise.org
For other opportunities contact: Rena Ashton (208) 608-7741 • rashton@cityofboise.org
FACILITY ADDRESS: 355 Julia Davis Dr., Boise