

Educational Field Experiences in Central Oregon

A Resource Guide for Teachers and Administrators

Created by the Deschutes Children's Forest



About the Deschutes Children's Forest.....	2
Why Learn Outside?.....	3
DCF Field Experiences.....	4-6
Inclusion.....	7
Skyliner Lodge.....	7
Resource Co-op.....	7
Teacher Trainings and more.....	8
Tips for Group Management in the Outdoors.....	9
School Engagement Fund.....	10-11

About the Deschutes Children's Forest

In 2011, a team of educators, conservationists, and health care providers came together with a vision... *what if we could provide experiences for every child in Central Oregon to engage with nature?* This vision emerged from local and national trends that indicate that time spent in the outdoors is in steep decline while at the same time environmental literacy is dropping. In May 2011, the Deschutes Children's Forest was created as part of a growing national network of Children's Forests, developed by the U.S. Forest Service. The Deschutes Children's Forest is a *network of outdoor places and programs* dedicated to moving all children along a continuum of learning, exploration, and healthy living through engagement with nature.

One of the primary ways that the Deschutes Children's Forest reaches children is through field experiences provided to their classrooms. In the 2012-2013 School Year, DCF's education partners who include Bend Park and Recreation District, Deschutes National Forest, Discover Your Forest, High Desert Museum, The Environmental Center, Oregon Department of Fish and Wildlife, Upper Deschutes Watershed Council, and Wolfree provided field experiences for 11,000 students, in over 300 classes across Central Oregon. **Our goal is to reach 14,000 students in the 2013-2014 School Year and 20,000 students in the 2014-2015 School Year.** We need your help to achieve our goals!



About This Guide

This guide is intended to be a resource to be used by both teachers and administrators to provide them with information about the resources offered through the Deschutes Children's Forest. We seek to add value to the work of our education partners by providing resources that help to remove barriers that prevent field experiences from happening. These resources include:

- Consolidated information about all of the field experiences available to schools in Central Oregon
- Access to the School Engagement Fund, which provides funding for transportation and substitute costs associated with field experiences and teacher trainings
- Teacher training opportunities
- Skyliner Lodge located on Deschutes National Forest, available as an outdoor classroom space
- Resource Co-op which provides field equipment and supplies that any teacher in Central Oregon can check-out
- Assistance with program adaptation for students with disabilities to encourage participation of all children in field experiences
- And more!

Why Learn Outside?

The Studies Show...

- Nature enhances academic achievement. Studies show that students learn more when they participate in authentic, inquiry-based lessons in the natural environment.¹
- A study of 40 schools found that students within an environment-based context showed better performance on standardized tests, increased enthusiasm for learning, and reduced classroom management and discipline problems.²
- Symptoms of ADD/ADHD are less severe in students during and after activities in greener settings.³

Teachers are Saying...

"When the students are able to learn outdoors, they interact directly with their environment and naturally ask questions and form connections with the science content and the natural world. I see the students' interest levels increase, and they take more ownership in what they learn."

-Rima Givot, Sisters High School

"Learning outside also changes the dynamics of our classroom. I might see a student in a certain light in our classroom, but when we go outside it often helps me view students differently. This is especially true of students who struggle to focus in our room, but are laser focused when we're learning outside. Just as some students excel in math or reading, I truly believe that there is an outdoor intelligence. In the future if we want people to value open, natural spaces they have to have those experiences, which learning outside provides."

-Ryan Shaffer, Ponderosa ES

"It's one thing to talk about ecological interactions in the classroom, but quite another to actually go and discover evidence of these interactions first-hand, in the outdoors. Whether it's seeing a garter snake hunting around a pond, finding a deer carcass, or looking closely at the structure of lichen with a magnifying glass, these immediate experiences bring science to life....we get a kind of connection, a 'wow factor' that's hard to duplicate in the classroom. Our hope is that these memorable experiences provide a foundation of interest and curiosity that will fuel future learning both outdoors and in the classroom."

-Alice Wagner, Elton Gregory MS

It's Easier than you Think...

- DCF programs are aligned with Common Core State Standards and Oregon State Science Standards, which means that what your students will learn on their field experience will compliment what you are teaching in the classroom.
- Field experiences can occur right in your school yard or at one of the many Deschutes Children's Forest sites within 20 miles from your school.

¹State Education and Environment Roundtable (2005). California Student Assessment Project Phase Two: The Effects of Environment-Based Education on Student Achievement. SEER: Poway, CA.

²Lieberman, Gerald, and Hoody. The Executive Summary: Closing the Achievement Gap. Rep. Vol. 2 & 3. 1998.

³Taylor, F. A., F. E. Kuo, and W. C. Sullivan. "Coping with ADD: The Surprising Connection to Green Play Settings." Environmental Behavior 33 (2001): 54-77.

Deschutes Children's Forest Field Experiences

BPRD = Bend Park & Recreation District	DNF = Deschutes National Forest	DYF = Discover Your Forest
HDM = High Desert Museum	ODFW = Oregon Department of Fish & Wildlife	TEC = The Environmental Center
UDWC = Upper Deschutes Watershed Council	Wildheart Nature School	Wolftree

Program/Project	Grade Level	DCF Partner	Cost	Locations Offered	Months Offered	Max. Group Size	Program/Project Description
The Upstream Project	K-12	UDWC	Free	Tumalo, Deschutes, Little Deschutes, Whychus, Metolius	Sept - June	35	A dynamic watershed education program that provides K-12 students with hands-on stewardship experiences in science, creative writing, cultural studies, and art.
1000 Drops	K-5	UDWC	Free	same as above and classroom	Sept - June	35	Regionally based hands-on learning program to guide local students to develop a sense of place for the Upper Deschutes watersheds.
Hometown Waters	6-10	UDWC	Free	same as above	Sept - June	35	Students connect to their home watershed through place-based activities in watershed science, mapping, math, and art.
Student Stewardship Projects	10-12	UDWC	Free	same as above	Sept - June	25	Through research, writing, art, science, and community interviews, students participate in all aspects of a hands-on stream stewardship project. Students present their projects and watershed stories at Students Speak: A Watershed Summit each spring.
Lava Lands Discovery Tours	4-8	DYF, DNF	Free	Lava Lands Visitor Center	May to mid-Oct	60 - 100	Spring and Fall field trips to the main visitor center for NNVM focused on hands-on exploration of unique local geological features.
Lava River Cave Conservation Tours	4-8	DYF, DNF	Free	Lava River Cave	May to mid-Oct	30-60	Spring and Fall field trips to a local lava tube focused on this unique habitat and its use by native wildlife esp. bats and the threats to these populations (i.e. White-nose Syndrome).
Project SNOW (Studying Nature Outdoors in Winter)	4-12	DYF, DNF	Free	Mount Bachelor	Jan to March	60-70	Travelling by snowshoe or cross country skis, students use a field based and experiential approach in science inquiry to assess nivean environments; using snow science tools, animal tracking, and seasonal adaptation studies, students address ODE benchmarks and standards for physical, life, and earth sciences.
Kokanee Karnival	4-5	ODFW, DNF, Central Oregon Flyfishers	Free	Classroom and various field locations	varies w/ program	35	A dynamic, hands-on learning experience to educate and excite students about fish conservation and healthy watersheds. Programs include an angling clinic, hatchery experience, streamside experience, fish eggs to fry, and fish dissection.
Fired Up About Oregon Forests	4-8	HDM	Free	High Desert Museum	Sept - June	30	Explores the role of fire in forests of the west. Using both historical and contemporary management approaches, students use hands-on, inquiry-based activities to learn how ponderosa pine are fire adapted and how fire is an integral part of a healthy forest.
Desert Waters	4-8	HDM	Free	High Desert Museum	Sept - June	30	How do wildfires effect a watershed? This class will focus on what a watershed is and identify the one we live in. Through science inquiry and hands-on activities, students will discover where their water comes from and how natural disasters like fire affect their towns, drinking water, agriculture, and wildlife. This is an all-day class.

Deschutes Children's Forest Field Experiences (continued)

Program/Project	Grade Level	DCF Partner	Cost	Locations Offered	Months Offered	Max. Group Size	Program/Project Description
H2O OH!	K-5	HDM	\$175 (90 min)/ \$150 (60 min) at HDM. \$150 (90 min) off-site	HDM and classrooms	Sept - June	30	What lives in our stream? Enter the amazing world of insects and macroinvertebrates! Students will use the scientific method to classify arthropods, learn about metamorphosis and participate in a stream survey. They will observe, collect and identify organisms from the stream.
Desert Dwellers	K-5	HDM	same as above	HDM and classrooms	Sept - June	30	The High Desert has three distinct and diverse microhabitats; the shrub-steppe, riparian and aspen habitats. Students become field biologists and work outside to learn about the plants and animals that live in each environment and observe animal adaptations.
Rockin' Geology	K-8	HDM	same as above	HDM and classrooms	Sept - June	30	Volcanoes erupting. Lava flowing. Igneous rocks forming. Pressure building, releasing and building again. Using the Cascade Mountains as a guide, students will experience a variety of different volcanic processes through dramatic experiments and eyepopping demonstrations.
Inquiry Minds: Science Inquiry Class	K-8	HDM	same as above	HDM and classrooms	Sept - June	30	Students will experience a complete science inquiry lesson. From asking questions, to forming and designing their experiment, collecting the data and analyzing it, they'll learn what a science experiment encompasses. This lesson is developed around the following topics: force, physical science, earth science and life science. Teachers can choose the topic they are interested in and we will do a science inquiry lesson around it.
Water Science	K-8	HDM	same as above	HDM and classrooms	Sept - June	30	Have you ever wondered how a stream was formed? Or how a water strider "walks" on water? This class focuses on the amazing properties of water. Using the scientific process, students will study surface tension, density, and temperature. They'll build a stream on our water table and observe how water flows, erosion occurs, and pollutions travels.
EarthSmart Kids Community Connections	5-6	TEC	Free	Classroom and Skyliner Lodge	Sept - June	35	Through hands on activities and in-class presentations, students learn about sustainable actions and how they can affect their community once a month. The field trip component brings students to the end of their waste and provides a sense of connection to their world through an all day outdoor school day
Children's Forest Explorers	1-3	TEC	Free	Skyliner Lodge	Sept - Nov, April - June	110	Through hands-on science observation, exploration, games, reflection and art activities, students will learn basic ecological principals such as interdependence, biodiversity, habitats and adaptations through different activities throughout the day.
Children's Forest Explorers	3-5	TEC	Free	Skyliner Lodge	Sept - Nov, April - June	110	Students will learn about the various flora and fauna of in the ecosystems surrounding the Skyliner Lodge and our interdependence with nature. Activities focus on learning how to explain the interdependence of plants, animals, and environment, and how adaptation influences survival.
Arbor Week Tree Planting	K-12	BPRD	Free	Shevlin Park	April	60	This program includes a brief interpretive talk, supervision of hands-on tree planting and lots of fun digging in the dirt!

Deschutes Children's Forest Field Experiences (continued)

Program/Project	Grade Level	DCF Partner	Cost	Locations Offered	Months Offered	Max. Group Size	Program/Project Description
Canoe	3-8	BPRD	Free	Various locations	May, June, Sept.	100*	Canoe trips on Elk Lake, Sparks Lake, or Suttle Lake. BPRD supplies canoes, safety equipment, and instruction. *30 students canoeing at a time/can be 1 station in a program
Map & Compass	3-8	BPRD	Free	Various locations	Sept - June	100*	Students learn basic map and compass skills. *30 students at a time/can be 1 station in a program
Lorax Readings	K-5	DNF	Free	Classroom	April	60	In celebration of Earth Day, Deschutes National Forest employees share an interactive reading of Dr. Seuss's The Lorax followed by engaging discussion about ways to protect the environment.
SEED Project	K-12	DNF	Free	La Pine, Gilchrist schools	Sept - June	varies w/ program	Providing a dynamic, age appropriate, hands-on learning experience in the field and classroom for South-Central Oregon students. Programs include tree planting, recycling, restoration projects, native species monitoring.
Cascade Stream-watch	5-12	Wolfree	Free	varies depending on location of school	Sept - Nov, March - May	40	While exploring aquatic environments in waders, students use a field based and experiential approach in science inquiry to assess habitat health; using water quality tests, macroinvertebrate collection, and riparian assessment. Students' satisfaction of ODE benchmarks and standards include physical, life, and earth sciences.
Science in the Forest	5-12	Wolfree	Free	varies depending on location of school	Sept - Nov, March - May	40	Hiking through a variety of terrains, students use a field based and experiential approach in science inquiry to assess terrestrial environments; using topographic map analysis, forestry tools, biotic and abiotic identification. Students' satisfaction of ODE benchmarks and standards include physical, life, and earth sciences.
Nature Exploration Field Trips	3-4	Wildheart Nature School	\$160 for 2 hrs.	Skyliner Lodge, Juniper Jungle Farm	March - May	30	Spring field trips include hands-on experiments, educational games, and observations of the natural world. Activities include studying living organisms and their environments, comparing and contrasting parents and offspring, looking at the life cycles of plants and animals, and learning about environmental stewardship. Activities are aligned with ODE standards for 3rd and 4th grade.

Contact Information for Deschutes Children's Forest Partners:

BPRD: Eric Denzler, Outdoor Programs Coordinator, ericd@bendparksandrec.org, (541) 389-7275

DNF: Katie Chipko, Deschutes Children's Forest Coordinator, katie@deschuteschildrensforest.org, (541) 383-5592

DYF: Karen Gentry, Education Coordinator, karen.gentry@discovernw.org, (541) 419-3831

HDM: Erica Pelley, epelley@highdesertmuseum.org, (541) 382-4754 x 320

ODFW: Jennifer Luke, (541) 388-6363

TEC: Jackie Wilson, Sustainability Educator, Jackie@envirocenter.org, (541) 385-6908 x 15

UDWC: Kolleen Yake, Education Director, kyake@restoredeschutes.org, (541) 382-6103

Wildheart Nature School: Amara Dreamer, amara@wildheartnatureschool.com

Wolfree: Dale Waddell, sierra@ccwebster.net, (503) 730-5999



Teacher-Led Field Experiences

In addition to the programs offered through DCF partners, we encourage teachers to plan and facilitate field experiences, independent of our partners. The DCF website offers an interactive map with 37 officially designated sites and also includes trail information, directions, ADA accessibility information, available facilities, bus accessibility, and possible focal topics. Visit deschuteschildrensforest.org/places to view this map.

Other Services offered by the Deschutes Children's Forest Network

Inclusion

We highly encourage teachers that are planning field experiences to ensure that ALL of their students (including those with disabilities) attend. All Deschutes Children's Forest Field Experiences may be adapted for students with disabilities. In order to be able to most effectively work with students with special needs, please communicate any necessary or helpful information to the program provider in advance, so that they can make plans to adapt their programs accordingly. Additionally, with 1 month's advance notice, Bend Park and Recreation District may provide Therapeutic Recreation staff to provide individualized techniques and resources used to enhance program participation for students with disabilities. This service is intended to supplement assistance that school district aides provide. For more information about this service, please contact Katie Chipko at: katie@deschuteschildrensforest.org.



Skyliner Lodge

High Desert Education Service District has leased historic Skyliner Lodge, on Deschutes National Forest with the goal to use the facility for conservation, outdoor and natural resource education in addition to educational meetings. Any teacher in Central Oregon may reserve Skyliner Lodge at no charge. The lodge is located 8 miles west of Bend, holds 60-70 students, and has access to trails and Tumalo Creek. The lodge provides a great indoor space for student presentations or a break from the elements. For more information about how to reserve the lodge, visit: hdesd.org/about/skyliner-lodge.



Resource Co-op

The Deschutes Children's Forest is establishing a Resource Co-op with field equipment and tools that any teacher in Central Oregon can check out, free of charge. The Resource Co-op includes three main kits:

- Stream Ecology and Water Quality: Materials for macroinvertebrate sampling, test kits for dissolved oxygen and pH, rubber boots, and waders
- Forest Ecology: DBH tape, compasses, clinometers, densimeters, transect tape, and increment borers
- Ecosystems Explorations: Binoculars, butterfly nets, collection of animal skulls, tracks, and scat, and hand lenses

In addition to the kits, the Resource Co-op also had a wide selection of field guides, clipboards, portable white boards, first aid kits, and more. To learn more and reserve supplies, visit deschuteschildrensforest.org/resource-coop





Teacher Trainings

In the 2013-2014 School Year, the Deschutes Children’s Forest will be offering teacher trainings focused on learning in your “NatureHood”. These trainings are targeted at K-5 teachers and will be focused on incorporating scientific inquiry into outdoor learning. To learn more and to schedule a training at your school (we prefer for the training to be school-wide), please contact Katie Chipko at katie@deschuteschildrensforest.org. Additionally, several of the DCF partners offer 1-3 day teacher trainings throughout the year. To learn more, visit deschuteschildrensforest.org/educator.

Curriculum Resources

Recognizing that teachers don’t always have the time to develop new lessons or activities, the Deschutes Children’s Forest has created an online resource with curriculum that Central Oregon teachers have created for field experiences, organized by grade level. To access this resource or to submit curriculum that you have developed, please contact katie@deschuteschildrensforest.org.

Deschutes Children’s Forest Teacher of the Month

Whether it is your first time leading a field experience for your students, or your 10th field experience of the year, Deschutes Children’s Forest wants to recognize teachers that are leading the way for providing outdoor learning experiences for Central Oregon’s students. Please send nominations to: katie@deschuteschildrensforest.org.

Exciting News!

Outdoor School is coming to Central Oregon!

In June 2013, Camp Tamarack, near Suttle Lake (west of Sisters) was purchased by a non-profit organization, On Belay TY, with the intention of developing the facility as an Outdoor School site for students in Central Oregon. Deschutes Children’s Forest is working closely with On Belay TY to launch Outdoor School Programming at Camp Tamarack in Spring 2014. The 3-day Outdoor School program will serve 5th and 6th grade students and Camp Tamarack would provide the education, food service, and facilities staff. To learn more or to inquire about bringing your school to Camp Tamarack, contact Charlie Anderson at charlie@camptamarack.com.



Packing List for Field Experiences

Don’t Forget to Bring...

Teacher

- plenty of extra sharpened pencils
- small first aid kit
- extra ziplock bags
- hand sanitizer
- copies of emergency contact and medical information
- camera

Student

- water bottle (with water)
- warm layers
- closed-toe shoes
- sunscreen
- lunch with extra snacks
- ziplock bag with pencil and field journal
- day pack

Tips for Group Management in the Outdoors

- **Discuss field trip behavior rules with your students beforehand.** Students should understand that the same rules that apply in school, apply on the field trip. Explain the consequences of inappropriate or unsafe behavior. Emphasize that they are representing their school's reputation when they are off-campus and that we want to present our best behavior to the outside world.
- **Prepare your students before the trip.** Discuss the subject matter they will be learning in the weeks before the field experience. Give the students a list of questions they will be looking to answer during the field experience. This will keep them focused, informed, and engaged in learning all day long.
- **Establish a signal to get students' attention.** This could be a simple call and response such as "One, Two, Three. Eyes on Me!" and students respond "One, Two. Eyes on You!"
- **Travel responsibly and safely.** When hiking, travel in a "chaperone sandwich" with an adult in the front and back of the group. Students should stay on designated trails (when appropriate) and should be instructed not to run. When doing activities that require students to spread out, establish clear boundaries before you start and ensure that all students are always in sight.
- **Establish the "Rule of Threes" or "Buddy Rule".** Anytime that students leave the larger group, they should travel either with another student and an adult (rule of threes, for younger students) or with another student (buddy rule, for older students).
- **Choose parent chaperones wisely.** Field trips require extra eyes and ears. Depending on the site, recruit one chaperone for every 5-10 students. The ideal chaperone is one who is engaged, responsible, and caring. Be sure that chaperones understand that they are there to manage their entire group, not just to spend time with their son or daughter.
- **Give your chaperones the tools they need to be successful.** Make nametags for all chaperones and students. Create a "cheat sheet" of the day's itinerary, special rules, and the names of all kids in each chaperone's group. Give chaperones tips for managing challenging students beforehand.
- **Count all day.** Your biggest responsibility as a teacher is keeping track of each student. Chaperones should count the students in their group, but also be sure to get a head count any time the whole group is gathered.
- **Be considerate when creating student groups.** Avoid grouping students who tend to have problems when together. Assign problem-prone students to chaperones with good management skills or to your group. Field trips can also be a great time to allow students from different classes to get to know each other.
- **Make sure you have all necessary medications.** Talk to the school nurse in advance and gather any medications that your students take during the day. Students with severe allergies need to always have immediate access to their epi-pen. Find out from your school nurse if the student is able to self-administer their epi-pen or if you need to do it.
- **Environmental Factors.** Regularly check-in with students to make sure they are staying warm (or cool) and dry, drinking water, and using the restroom. Many student complaints can be avoided by staying hydrated!
- **Leave No Trace.** All students should understand to be respectful of the living and non-living things they encounter. A good rule of thumb is to "leave nothing but footprints and take nothing but pictures." To find more information about Leave No Trace Principles, visit Int.org.



School Engagement Fund: Request for applications

About the School Engagement Fund

The Deschutes National Forest has partnered with High Desert Education Service District to set up a School Engagement Fund. Teachers from Bend-La Pine, Redmond, Sisters, Madras, and Culver School Districts can apply to use the School Engagement Fund for the following purposes:

1. Transportation fees for field experiences to Deschutes Children's Forest sites and programs (e.g., school buses)
2. Substitute fees associated with approved field experiences to Deschutes Children's Forest sites and programs
3. Substitute fees associated with attending teacher trainings offered by Deschutes Children's Forest partners

Deschutes Children's Forest Programs, Sites, and Trainings

- A complete list of Environmental Education Programs offered through the Deschutes Children's Forest partners is found on pages 4-6 or on our website at deschuteschildrensforest.org/educators.
- The School Engagement Fund also provides funding for field trips that are organized and led independently by teachers to Deschutes Children's Forest sites. A list of DCF sites can be found at: deschuteschildrensforest.org/places.
- If you have an idea for a field trip at a site not listed, please let us know and do not hesitate to apply.
- For information about teacher trainings offered through the Deschutes Children's Forest partners, visit our website at deschuteschildrensforest.org/educators. The School Engagement Fund may also be used for any Project WET, Project WILD, or Project Learning Tree teacher training.
- We strongly encourage applicants to study the Deschutes Children's Forest website to ensure that your proposal aligns with the Deschutes Children's Forest mission.

Application Process

In order to accommodate a large number of requests, we have set up an application system that will occur twice a year. The application for the School Engagement Fund is on page 11.

Date of Field Experience or Teacher Training	September 16 – December 20, 2013	January 6 – June 12, 2014
Regular Application Deadline	September 10, 2013	December 10, 2013
Notification	September 13, 2013	December 16, 2013
Late Application Deadline	October 1, 2013	March 3, 2013
Late Application Notification	October 7, 2013	March 10, 2013

**We highly recommend that teachers plan ahead and apply during the regular application period. The late application is intended for teachers that, due to special circumstances, were unable to apply during the regular application period.

Priority for funds will be given to field trips that:

- align with Oregon State Science Standards or Common Core State Standards for your grade level
- are for Title I schools
- include special education and life skills students



Application for Use of the School Engagement Fund

School: _____

Teacher Name(s): _____

Email: _____ Phone: _____

Applying for: Field Trip Teacher Training (skip to tan section below)

Is this field trip (choose one):

Provided by a Deschutes Children's Forest Partner

Organized and taught by teachers.

If so, did you attend a DCF or other teacher training? Yes No

Name of training (if applicable): _____

Field Trip Location: _____ Date(s): _____

Organization (if applicable): _____

Program Name (if applicable): _____

Grade Level(s): _____ Number of Students Attending Trip: _____ Number of Classes Attending Trip: _____

What Oregon State Science Standard(s) and/or Common Core State Standard(s) does this trip align with? _____

How are you working to make this field trip inclusive of special education and life skills students? _____

If this request is for a teacher training, please complete this section.

Name of Training: _____ Dates(s): _____

Organization: _____

Are you planning on leading field trips with your class as a result of this training? Please describe: _____

Amount requested for transportation: \$ _____

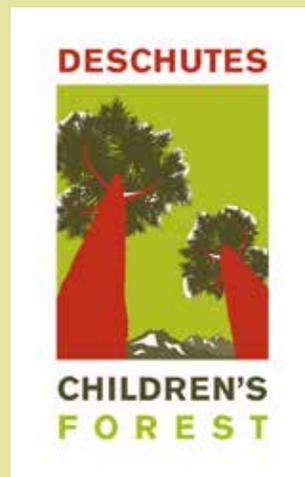
Amount requested for substitute teachers: \$ _____

Total amount requested: \$ _____

Submit completed application forms to Katie Chipko, Deschutes Children's Forest Coordinator by the appropriate deadline (found on page 10). Forms can be submitted by email to: katie@deschuteschildrensforest.org or fax: 541-693-5701.



*Envision a world in which every child
is inspired by nature to become
a healthy individual and create a sustainable future.*



Learn more at:
deschuteschildrensforest.org

Or contact:
Katie Chipko
Deschutes Children's Forest Coordinator
katie@deschuteschildrensforest.org
(541) 383-5592