

## Session Descriptions

### MAJOR SESSIONS

Archery in Schools Programs: B&C combined: Learn the basics of shooting bows and arrows –safety, equipment and 11 Steps to Shooting Success. This program acquaints participants with the National Archery in Schools Program which is exploding throughout the country and internationally. Participants will learn how to get certified to use the program in their physical education and other curricula and compete at local, state, national and world levels. If taking this all –day session, participant will be a certified National Archery in the Schools Program Basic Archery Instructor. Burnie Kessner, TPWD

Bicycling: Meet at Echo Valley headquarters for a brief session. Ride will begin at the camp entrance at the top of the hill. This session, by means of a brief seminar and leisurely ride through the beautiful Texas hill country provides you a chance to learn about, and participate in, the popular sport of bicycling. The seminar content will be adjusted to the interests and knowledge levels of the participants. Topics can include safety, shifting gears, braking, bicycle selection, variety of riding opportunities, riding skills, pace, equipment, where to ride, touring, basic maintenance, and teaching bicycling. The ride, which will be entirely on paved road, will be paced so all participants will have an enjoyable experience. Bring your own bicycle in good working condition, money for a noon meal, and a helmet. (Helmets are required, so bring your own if possible. TOEA can provide a few helmets.) Buddy and Tresa Gilcrest

Environmental Wonders of the Frio River Canyon: There will be activities and discussions on the water of the Frio River, the wetlands of H. E. Butt Foundation Camp, the rare species present at the camp, and features to be seen while hiking the camp. This is a hands-on outdoor session. Prepare to get a little wet on a short hike across the shallows of the Frio. Bring a **magnifying glass** if you have one. Notepads and calculators are recommended. The session includes practical, field-oriented map exercises, field-conducted chemistry and biological sampling. Ken Cave, Uvalde, Texas

Field Sketching...An Interdisciplinary Experience: Have you ever flipped through the excerpts of a Lewis and Clarks Field Journals? What about the journals Charles Darwin took on his endeavors? Do you wish you could delve into that world with your students. During this session we will explore a curriculum that does just that. You will explore maps, create field sketches, write descriptive passages, use math to draw to scale, and label like a scientist. We may even create an artistic masterpiece from one of your sketches. *“It is only by drawing often, drawing everything, drawing incessantly, that one fine day you discover to your surprise that you have rendered something in its true character.”* - Camille Pissarro. Lari Jo Johnson

Fishing for Students! Texas Parks and Wildlife staff will provide a 4 hr. Angler Education Instructor Course in which participants receive free curricula and experience

hands-on training in Angler Education that can be translated directly into the classroom. Upon successful completion of the training, participants qualify to order free learning materials and to borrow equipment to teach the class. Learning activities are correlated to the Texas Essential Knowledge and Skills for science, social studies and PE. Appropriate for grades 3 – 12. Grade level modifications demonstrated and discussed during the class. Karen Marks TPWD

Fly Fishing 101: Learn the basics of fly fishing. Learn the rod and reel, the line, the leader, and the fly. Learn the various knots necessary to rig a fly rod. Learn to cast the fly rod, then take the equipment to the river and fish (valid Texas fishing license required for fishing). There is a catch and release policy. Larry Hysmith Texas AgriLife Extension Service and Steve Hall, Texas State Rifle Association Executive Director

Hiking HEB: From Central Canyon to Circle Bluff: This is a hike to the highest point of H.E. Butt Foundation Camp. Check out the flora, fauna, and scenery of this beautiful place. Participants should have good, sturdy athletic shoes or hiking boots, water bottle, camera and possibly a hiking stick for support. This hike will take 3 hours with some inclined walking. The leader will take lots of breaks. Sid Blalack

Learning About Rangelands! Part 1: Looking for a fun and interactive curriculum for your elementary students that integrates the new TEKS? The Welder Wildlife Foundation has a great new curriculum for use in classrooms grades K-6. This supplementary curriculum helps to get students outdoors and experience conservation hands-on. Each of the 27 lessons is correlated to the TEKS in science, language arts, social studies, math, and technology! This hands-on session will give you a taste of the fun-filled learning activities that could be used in your classroom. **Full educators certification and curriculum will be given with attendance to both sessions!** Ashley Exendine, Mike Exendine & Liz Bates - Rob and Bessie Welder Wildlife Foundation

Learning About Rangelands! Part 2: Looking for a fun and interactive curriculum for your elementary students that integrates the new TEKS? The Welder Wildlife Foundation has a great new curriculum for use in classrooms grades K-6. This supplementary curriculum helps to get students outdoors and experience conservation hands-on. Each of the 27 lessons is correlated to the TEKS in science, language arts, social studies, math, and technology! This hands-on session will give you a taste of the fun-filled learning activities that could be used in your classroom. **Full educators certification and curriculum will be given with attendance to both sessions!** Ashley Exendine, Mike Exendine & Liz Bates - Rob and Bessie Welder Wildlife Foundation

Science & Civics Workshop: Project WILD's new high school curriculum, Science and Civics: Sustaining Wildlife, is designed to serve as a guide for involving students in environmental action projects aimed at benefitting the local wildlife found in a community. It involves young people in decisions affecting people, wildlife, and their shared habitat in the community. The program consists of four major components: (1)

awareness: alerts students to the impact of human and individual activities on habitat quality and quantity, (2) Participatory Democracy: develops principles related to government structures and is appropriate for government and civics units of social studies courses, (3) Habitat Exploration: studies biotic and abiotic parameters of a site and is appropriate for ecology and environmental science units of science courses, and (4) Taking Action: guides both science and social studies students in designing, implementing, and communicating projects to enhance a particular site. Lessons are integrated with core subject curricula and aligned to the TEKS. Participants will receive complete curriculum with the completion of the workshop. **Cost is \$25 per participant to pay for curriculum cost.** Ray Kirkwood and Mandy Corso– Rob and Bessie Welder Wildlife Foundation

Take Me to the Stars: Come and learn about the universe and make an indoor planetarium. Robin Ford, ESC 2, Science Consultant

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## REGULAR SESSIONS

Archery – The Basics: Learn the basics of archery and how to use it in school. Each participant will have a hands-on experience while emphasis is placed on safety, equipment, and steps toward successful shooting skills. John Fortner, Huntsville, Texas

Astronomy: Finding Your Way around the night Sky: Using simple “star Hopping” techniques and star charts, participants will learn to navigate the night sky. Students will learn to identify several constellations, where to find planets for 2011 and 2012, what the Messier objects are, and the location of some stars from the H-R diagrams. You will also learn what constellations you can see soon after dark for each season. **NOTE:** Signing up for the Astronomy Night Sessions will allow you to follow up with a night session where you can put what you learned into action (weather permitting). Tresa Gilchrest

Astronomy Night Session: Our beautiful and amazing sky reveals much about our universe. This session covers what we are looking at when we look into the night sky. Bring your curiosity, your star charts if you have them, red light flashlight and binoculars. **NOTE:** Signing up for the daytime session Astronomy: Finding Your Way Around the Night Sky is not required for participation in this session, but is encouraged. Tresa Gilchrest

Axe “Hawke” Throwing: In this session, the history of axes will be discussed briefly. The main part of the session will be to learn and throw an axe safely and successfully.  
Charlie Lara, Edinburg, Texas

Basic Black Powder and Muzzle Loading: Participants will learn how our ancestors used the black powder rifle that tamed the West. You will learn history, terminology, the parts of the black powder rifle and how it was used before the rapid-fire breech-loading firearm was invented. Larry Hysmith, Texas AgriLife Extension Service and Steve Hall, Texas State Rifle Association

Basic Handguns: Basic fundamentals of pistol marksmanship. This session will utilize air pistols to introduce youth to a lifetime of shooting skills. This will be a hands-on activity with equipment and ammunition furnished. Eye and ear protection is available, but bring your own if you have it. Larry Hysmith, Texas AgriLife Extension Service and Steve Hall, Texas State Rifle Association

Basic Rifles: Basic fundamentals of rifle marksmanship. This session will utilize air rifles to introduce youth to a lifetime of shooting skills. This will be a hands-on activity with equipment and ammunition furnished. Eye and ear protection is available, but bring your own if you have it. Larry Hysmith, Texas AgriLife Extension Service and Steve Hall, Texas State Rifle Association

Basic Wildlife Sketching: Introduction to Field Sketching - As Frederick **Franck** said, “I have learned that what I have not drawn I have never really seen, and that when I start drawing an ordinary thing, I realize how extraordinary it is, sheer miracle.” So let’s start seeing extraordinary things in nature. Bring your pencil and learn some secrets to basic field sketching. We will strengthen your powers of observation and fire our inner art critic in order to begin our journey to better field sketches. The journal you will be using has 10 activities to begin your journey. Lari Jo Johnson

Birding the Frio: Let’s go birding! We will meet and then spend the morning birding on the trails looking for birds and identifying the habitats with which they are associated. Bring **binoculars** if you have them or borrow some from a friend to make this a much more enjoyable experience. Come dressed for walking. If you have a field guide, bring it along. There will be a few pairs of binoculars and field guides to share. Mandy Corso & Ray Kirkwood - Rob and Bessie Welder Wildlife Foundation

Building Feeders: Participants will learn how to build various types of wildlife feeders and nest boxes out of inexpensive materials or from stuff you just find lying around the house. Feeders and nest boxes are a great way to attract wildlife to your backyard or schoolyard while helping to improve habitat at the same time. Participants will be allowed to build at least one feeder or nest box to take home. *Cost is free, but donations accepted.* Dale Hrabovsky, Friendswood, Texas

Easy Aquatic Sampling: Participants will learn how to build simple minnow traps and a kick seine for aquatic sampling purposes. We will then use our gear to capture and

identify organisms living along the banks of the Frio River. The presence (or lack) of certain organisms is one indicator of water quality, and a lesson dealing with this will be provided. *Cost is free, but donations are accepted.* Dale Hrabovsky, Friendswood, Texas

Egg Drop Design: Carlos Guerrero, Robstown ISD

Experiencing Engineering - Uranium and Groundwater: Learn how you can experience a 6 week summer research project in the field of engineering. I will share my experiences and knowledge gained from researching groundwater quality of prior to uranium mining. This experience will also be adapted for the classroom to allow the students insight into this controversial topic using the 'Legacy Cycle' as an inquiry based unit. Marisa Hamilton

~~Flint and Steel Fire Starting: Primitive methods of fire starting will be discussed. Instructions for making fire starting kits will be given. Each participant will start a fire using the flint and steel method.~~ **Cancelled Due to Burn Ban at H.E. Butt Foundation Camp**

Fly Tying: Learn and practice the basics of fly tying. Make several patterns usable in Texas waters. Learn what it is we try to imitate when we are making these lures, i.e. aquatic entomology. Larry Hysmith Texas AgriLife Extension Service and Steve Hall, Texas State Rifle Association

Fun with Math: Math puzzles, tangrams, geometric designs and more. Fun ways to include math in any subject taught. Let your students see that basic math is an everyday part of life. Sally McAfee

Fun with Population Dynamics: Highlighting grades 9-12. Let's play a game! And as a result learn about environmental changes and their impact on population dynamics, symbiotic relationships and statistical analysis of data collected in the field. As stated by a student, "I was having so much fun, I didn't realize how much I was learning." Come prepared to play "tag". Deanna Showalter

Geocaching 101: How to use a GPS unit and find one or two caches. Ellie Crocker

Geocaching 102: Making a cache container and learn how to set it out. One or two will be set out for the rest to find. Ellie Crocker

Hot Air Balloons: Hot air balloons will be constructed in cooperative groups using a multi-sensory approach to learning. Reading TEKS: reading, following directions, reading diagrams. Science TEKS: physical science-relative densities. Art TEKS: design, draw, color logos. Math: Estimate or Calculate volumes. Participants will construct the hot air balloon on Saturday and launch the balloons following the Sunday morning devotional, weather permitting. Limited to 10 participants per session. Gary Guenther

How to Bring Your School or Group to the H.E. Butt Foundation Free Camps: Erik Silvius

Impromptu: Are you ready to become a design engineer? During this session, participants will compete and assemble a payload device to transport simple cargo on a scale of 1:3 inches. Carlos Guerrero, Robstown ISD

~~Invention Convention: Build a simple compound machine using ordinary objects from the classroom. Win a prize to use in the classroom.~~ **Presenter unable to attend**

Inquiry: Not the Cookbook Labs You did in School: Scientific inquiry is required in all Texas science objectives and is considered essential for effective science education. We will discuss assessment and several approaches: long term environmental investigations, data set inquiries (for a short, one class inquiry), multi-variable investigations, verbal design and computer simulations. You will actively participate in a data set inquiry, multi-variable investigation and a third if we have time. Bring a flash drive and you are welcome to download resources (data sets, grading rubrics, etc.) from my laptop. If you teach science at any level you will benefit with the ideas for several authentic scientific inquiries to facilitate in your classroom. Julie Singleton, TAMU

Kayaking: This session provides the participants with an introduction to beginning kayaking including safety, terminology, basic strokes, equipment, and actual participation on the Frio River to practice techniques. All equipment provided. Erik Silvius and Pete Silvius

Knapping: Participants will be introduced to the basic principles of stone tool manufacture. Each participant will knap an arrowhead from a piece of glass using pressure flaking method. All equipment will be provided. Pants of sturdy material are recommended. Leo Lopez, Edinburg

Knotting Matters: Key Elements in Knot Tying for Outdoor Activities: Knot tying is an essential skill to learn. In this session, you'll learn how to select a rope for the intended application, steps in tying a knot, and the 5 most important knots for beginners. You'll go home with a "tool chest of knots". A rope for practice and handouts will be provided. Tere Ramirez, University of Texas, Austin, Texas

Leopold Education Project, Striving for a Land Ethic: The Leopold Education Project curriculum is an innovative, interdisciplinary educational curriculum based on the classic writing of the renowned conservationist, Aldo Leopold. The LEP curriculum was developed for grades 6-12 and is designed to teach the public about humanity's ties to the natural world and to provide leadership in the effort to conserve and protect the Earth's natural resources. Come and participate in activities that can give you ideas on how to incorporate Aldo Leopold and his teachings into your classroom! "The Professor's" objective: *"to teach the student to see the land, to understand what he sees, and enjoy what he understands. I say land rather than wildlife, because wildlife cannot be understood without understanding the landscape as a whole. Such teaching*

*could well be called land ecology rather than wildlife, and could serve very broad educational purposes.” – Aldo Leopold Mandy Corso - Rob and Bessie Welder Wildlife Foundation*

Lunar Cycles: The goal is for students to identify the phases of the moon and relate the phases to tides and eclipses. This session presents the lunar cycles in the 5E model of instruction: **Engage:** Moon ABC Race; **Explore:** Moon Phase Sort- Give each group of students a baggie with 20 moon phases and ask them to sequence them. Allow them 3 minutes. Use HEQ to determine the patterns students used to complete the task. Ask about details in the system.; **Explain:** Review the phases of the moon using a foldable- Identify the terminator, waxing, waning, crescent, gibbous, full and new moons. Point out times of eclipses and tides.; **Elaborate:** Moon Phase Model; and **Evaluate:** Moon Phase Disc. Students know that cycles exist in Earth systems. The student is expected to: 8.7 A demonstrate and predict the sequence of events in the lunar cycle and 8.7B relate the position of the Moon and Sun to their effect on ocean tides. Robin Ford

Making a Field Guide for Your Campus: How to create a field guide for your campus. Includes the set up, possible topics, sample activities and everything you need to get started. Participants will walk away with their own field guide unique for their campus. Laura Chafin

Marine Adventures: Join Texas State Aquarium staff in a sampler of activities. We will take a closer look at birds, turtles and fish as well as participate in activities that can be taken back to the classroom as part of a special “Marine Adventures” covering multilevel science TEKS. Mollie Brown and Sally Howden, Texas State Aquarium

Mirror, Mirror, On the Wall: If you are looking for a fun, engaging, hands on, bonding type experience with measurement for your students, look no further. In this activity, participants will estimate and measure the dimensions of their face in centimeters, then compare the estimations with actual dimensions. No mirrors allowed! Participants will get lots of hands on experience measuring with a ruler and gets lots of experience estimating lengths. Come join the fun! Patty Calloway and Anna Summerlin

~~Mountain Bike Maintenance: Bring your mountain bicycles and your tools, if you have them, and give your bike a tune-up. Your bike will last longer and run better with these tips. Canceled due to conflict~~

Mouse-Trap Vehicles: Examine, build, alter, design, and experiment with mousetrap vehicles to understand velocity, potential and kinetic energy, acceleration, speed, circumference, and distance-there is more potential in this presentation than just potential energy! Enjoy hands on excitement by experiencing simple machines and other physics principles through the design and construction of a vehicle powered only by an ordinary mousetrap. Follow the design process and see direct applications of science and technology as we build a mousetrap-powered vehicle and compete with classmates to design the fastest car or the car that goes the farthest. Problem solving

at its best....limited to the first 10 individuals!!! Carlos Guerrero, Robstown ISD, and Patty Calloway

Native American Flutes: One of the most beautiful sounding flutes is the Native American Love Flute. Several types of primitive flutes will be viewed and discussed briefly. Participants will make a modified version of the love flute. All materials will be provided. No music background is necessary. However, a grinder and dremel power tools will be used. Leo Lopez

Photography -- Using the pictures in "The Wonder of It All: A Celebration of Life" as a starting place to discuss photography: The purpose of this session is to learn to make better pictures and to enjoy beauty. People frequently say they really wish they had an opportunity to leisurely look at and discuss the pictures in "The Wonder of It All: A Celebration of Life," to soak up the beauty, learn about them, and discuss some of the photography techniques applied in capturing the images. This is that opportunity. Bring a chair from the Ranch House. Buddy Gilchrest

Quilting: The history of Quilting and its patterns. Cherri Nelson

~~Something with Plants: Create and image using paper chromatography. Plant propagation. Take home a prize to use in the classroom.~~ **Presenter Unable to Attend**

Survival Bracelets: Dale Hrabovsky

Teaching Taxonomy: Highlighting grades 9-12, A collection of 4 activities that show how dichotomous keys are developed, how organisms are named and how to apply the keys and taxonomy in field science activities. Come prepared to hike and bring binoculars if you have them. Deanna Showalter

Water Wheel: Conserving energy through creativity. Participants will compete to create the most energy efficient device to raise a simple payload. Carlos Guerrero, Robstown ISD

Watercolors: Turning your field sketches into watercolors. Brad Bylund

Wind for Watts: Participants will have a hands on experience of building an actual wind turbine system that is affordable and can be implemented in classroom instruction. Participants will be challenged in the areas of engineering and design to create innovative thinkers for future energy needs. Demonstrations and models include energy transformation, solar power and alternative energy labs. One participant will win a wind turbine system! Carlos Guerrero, Robstown ISD, and Patty Calloway