



SCIENCE BYTES

DECEMBER 3, 2007 VOLUME 4

In this Issue:

1. Toshiba/NSTA ExploraVision Awards
2. Fire in Alaska
3. Campbell Creek Science Center Program
4. Rock and Roe Edutainment and Fritz
"Fish man" Kraus

Toshiba/NSTA ExploraVision Awards Program

The Toshiba/NSTA ExploraVision Awards Program is calling young scientists to enter its 2008 challenge. Now in its 16th season, ExploraVision will award up to \$240,000 in Savings Bonds this year, along with a host of other prizes, to student team members for the most innovative ideas that project technology 20 years into the future. The program is open to all K-12 public, private, and home-school students of all ability and skill levels who enter under the direction of their teacher. Many teachers now include it as part of their overall science curriculum, citing ExploraVision's propensity toward enhancing student learning and interest in science and cross-curricular activities. Entries are being accepted now through January 29, 2008. Visit <http://www.exploravision.org/bap> to download your Awards entry kit and competition rules and gain access to participation tips, sample projects, and other resources! Or contact NSTA for information and an application at 1-800-EXPLOR-9 or exploravision@nsta.org. ExploraVision can be the beginning of a lifelong adventure in science. Engage your students in ExploraVision now!

The class you have been hearing about !

Fire in Alaska

Ed 580 R (1 Graded credit) Feb 22 4:30-8:30
Feb 23 8:00-4:00
TBA 4:30-6:30

West High School-sci rm 3

Tuition- Free – sponsored by AK Division of Forestry /BLM
Materials fee- \$ 20.00

Audience- Teachers (especially, but not limited to gr 4-10)

Aides

Home schooling parents

Scout leaders

Anyone interested in Wildland Fire Ecology
Wildland Fire Behavior
Wildland Fire Safety

Fire in Alaska is a hands on, **interactive, lab based** course designed to help young people learn about fire ecology, fire behavior, and about living safely along the wildland urban interface. The lessons, which **use role playing, games, and laboratory and computer simulations**, can be taught individually or combined into units. Participants have access to a trunk filled with posters, videos, and equipment to perform experiments. This exciting fire curriculum is being used all over Alaska.

Join us !

Limit 20 participants-First come/first served

To register or for more info: Contact Matt Weaver
Matt.Weaver@alaska.gov 269-8481
(matt.weaver@alaska.gov)

Campbell Creek Science Center Programs

December 12: Discovering the Torrent

In 1868—less than a year after the Alaska Purchase—the three-masted sailing bark *Torrent* carried a battery of US Army soldiers north to build a military garrison on the shores of Cook Inlet. Sailing along the unfamiliar coast, the ship struck an offshore reef and quickly went to the bottom where it lay forgotten for 138 years. A private expedition led by author and diver Steve Lloyd discovered the *Torrent* in 2007. Join Steve as he discusses the *Torrent*'s mission, its destruction, and his team's underwater search for this historic shipwreck. Program begins at 7:00 pm on Wednesday December 12 at the BLM Campbell Creek Science Center (6865 Elmore Road). Please call 267-1247 for more information.

December 13: Seeing More with Your Telescope

Want to get the most out of looking through the telescope or binoculars you already have? Join us as Christopher Erickson shares his 30-plus years of accumulated tips and techniques for using telescopes and binoculars to study the night sky. The program begins at 7:00 pm

on Thursday December 13 at the BLM Campbell Creek Science Center (6865 Elmore Road). Stargazing to follow the program if the skies are clear. Please call 267-1247 for more information.

Rock and Roe Edutainment and Fritz “Fishman” Kraus Proudly Introduce Salmon Education Programs

Presentation dates available: January 22 through March 6 and April 7 through April 30, 2008

To schedule: Please send your approved ASD Community Resources Request Form to Marva Stevens at Community Resources. For more information contact Marva at 742-4147.

Rock and Roe Edutainment is excited to introduce a series of classroom presentations related to Pacific salmon and watersheds. These activities are designed to compliment the Alaska Department of Fish and Game’s “Salmonids in the Classroom” Program, but can also be used by instructors not participating in that program, who may be incorporating salmon or watersheds into their curriculum. Students will gain a better understanding and appreciation of Alaska’s most important natural resource, salmon, and learn about the importance of maintaining healthy watersheds.

Should a guy named “Fishman” educate my students?! Absolutely! Fritz, who is a retired fisheries biologist, developed, implemented and coordinated the Alaska Department of Fish and Game’s “Salmonids in the Classroom Program” for 15 years in locations statewide. He developed, and updated the presentations listed and has worked with thousands of students at all grade levels.

Programs: These presentations meet Alaska State Standards for Science as Inquiry and Process, and Concepts of Life Science

The Pacific Salmon Life Cycle (Grades K-12; 1 hour)

Students will name the five species of Pacific salmon found in Alaska and follow the life of the Pacific salmon from egg through spawner, with the help of a Powerpoint presentation, posters and egg stage vial displays. There will also be a discussion about the eight things a stream has to possess to support salmon and other aquatic life. Students will gain a better understanding and appreciation of salmon habitats and how difficult it is for a salmon to survive.

Teacher provides: projection screen or surface
Cost: \$100.00 first class plus \$25.00 for each additional class; Assembly (6 or more classes) \$225.00

Watersheds 101 - Classroom (Grades 4-12; 1.5 hours)

Rivers and streams are an important indicator of the health of a watershed. Salmon, as well as humans, need a healthy watershed to survive. This Powerpoint presentation will teach students about the water cycle, what a watershed is, how streams change as they progress through a watershed, stream types, riparian zones, watershed impacts and stream inhabitants – including salmon and macroinvertebrates (aquatic insects), which are the aquatic indicators of stream health.

Teacher provides: projection screen or surface
Cost: \$150.00 first class plus \$25.00 for each additional class; Assembly (5 or more classes) \$250.00

Fly Tying in the Classroom (Grades 2-12; time varies depending on grade 1.5-2.5 hours)

Now that students know all about salmon, it’s time to learn how to enjoy the resource! Each student will tie their own actual fishing flies, which can be used to catch their own fish. Fly tying is about creating patterns that imitate something happening in or around a stream, which trout, char or grayling like to eat at a certain time of the year. Students will tie the four salmon egg stage patterns imitating the egg, eyed egg, alevin and fry. It’s not as hard as you think! Lot’s of parent help is required, but we will have ASD King Career Center Natural Resource student assistants also!

Parent participation is required for fly tying set-up, break down, and during this very hands-on activity. The number of required parents depends on grade level. Grade level = parent to (grade level) student ratio (example, 2nd grade = 1 parent per 2 students; 5th grade = 1 parent per 5 students, etc.). This is a great opportunity to get fathers involved!

Teachers must remain with and actively supervise their students to maintain appropriate classroom behavior.

Maximum students per fly tying presentation is 75 students (or about 3 classes). If more than 3 classes would like to participate, a second presentation can be made during the same day to another group at the \$100.00 per class fee. One session can be made in the morning and one in the afternoon. An area should be selected that allows the fly tying equipment to remain set up for the second presentation. Please also keep in mind that groups of over 2 classes in size will have to be held in a larger room or MPR.

1 hour will be required for set-up prior to the scheduled start time, and 15-20 minutes for breakdown / cleanup following the activity. Several parent assistants will be required to help with these tasks.

Teacher provides: tables with a lip to attach vices, projection screen or surface,
parents, parents, parents!
Cost: \$250.00 first class plus \$100.00 for each additional class

Additional Information:

Discounts: There is no discount for small classes – the time to conduct any of the presentations is the same regardless of group size.

Cancellation Policy: Presentation cancellations may be made, at no charge, through ASD Community Resources (742-4147) 7 business days in advance of scheduled presentation. If a scheduled presentation is cancelled with less than 7 business days notice in advance there will be a \$25.00 cancellation fee per class.

Payment: Make checks payable to Rock and Roe Entertainment. Payment in full is due at time of presentation.