

River Watch at Lesher

Who can join?: All Lesher students interested in science (being a part of a real science experiment and learning new science techniques), making a positive impact, or students interested in helping protect the environment.

Who to contact for more information?: Mr. Mayer (bmayer@psdschools.org) or Ms. Spear, rspear@psdschools.org

What is it?: Help keep an eye on our rivers by collecting water, analyzing water, and uploading data to the Colorado River Watch program. This data is then used to help set water quality standards across the state of Colorado! See the back of this page for more information or the River Watch website:

www.coloradoriverwatch.org

When?: The THIRD Tuesday each month (during ELO and after school until 4 pm): 9/20, 10/18, 11/15, 12/20, 1/17, 2/ 21, 3/21, 4/18, and 5/16. If you must miss a meeting, no problem – please join us as your schedule allows (please just touch base with Mr. Mayer if you are going to miss)!

Where?: During ELO, we will walk to Spring Creek to collect water. After school, we will analyze water in Mr. Mayer's room, room 12.

What do you need?: To join us on Tuesdays, you need a signed permission slip and clothes to walk to Spring Creek (even in the winter when it is cold and snowy). We provide hip waders and water boots for students who would like to get in the creek. After school, all you need is a desire to learn new science techniques, patience, and attention to detail.

Colorado River Watch

Real people doing real science for a real purpose

Our mission is to work with voluntary stewards to monitor water quality and other indicators of watershed health and utilize this high-quality data to educate citizens and inform decision makers about the condition of Colorado's waters. This data is also used in the Clean Water Act decision-making process.

- River Watch volunteers consist primarily of Middle and High School students, but also include citizen groups, individuals, colleges, and local governments. Since 1989, we have involved over 70,000 individuals in Colorado and provided data on 3,000 stations covering over 300 rivers.
- Each volunteer group receives the training, support, and supplies needed to monitor their respective rivers and provide consistent and accurate data. Volunteers analyze samples for hardness, alkalinity, dissolved oxygen, pH, and temperature. Additional samples are analyzed by a professional lab for metals, nutrients, and macroinvertebrates. Quality assurance is essential in the program operation and data and quality control checks are performed regularly through the year.
- River Watch data is stored on an Internet server and can be accessed by anyone on the Colorado Watershed Assembly website. All the data is reviewed and validated by Colorado Parks and Wildlife employees before it is made public. The high-quality River Watch data is currently utilized by the Water Quality Control Commission, Colorado Parks and Wildlife, and many grassroots level watershed groups in the state for the management of Colorado's waters.



Macroinvertebrate sampling last week on Cross Creek, local 6th graders found a stonefly, mayflies and more!



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Lesher students collect data to impact clean water standards



Colorado congressmen and carp both have students at Lesher Middle School to thank for keeping an eye on the health of Fort Collins rivers.

Each month the International Baccalaureate students trek down to Spring Creek to collect water, then run a series of experiments to test for alkalinity, hardness and oxygen levels. The data, which is collected by volunteers all over the state through River Watch, a program of the Colorado Watershed Assembly, is used by the Water Quality Control Commission, Colorado Parks and Wildlife.

"This is the most real science I've ever done," seventh grader Shane Ball said. "It's neat to think that the data we collect is going to the state, and they're setting environmental standards by it. We're making an impact on the world."

He worked with partner Evan Geary to slowly drip water into a beaker, waiting for it change from blue to peach during the titration process.

"You don't know what the result will be, unlike class where there's always an expected result," Evan said as he stared down the beaker.

Testing the water lets kids try out chemistry experiments they usually wouldn't get until high school, and gives them a sense of ownership over the river. During the spring semester, River Watch is incorporated into an extended learning opportunity built around sustainability and environmental leadership called "IMPACTS."

"So often we're inundated with environmental problems, but I wanted to focus on solutions to those problems," science teacher Ben Mayer, who teaches the class, said. "Students see the impact that their data has on clean water standards -- it empowers them to take ownership of the river."

Plus, there's the fun of splashing around in the river wearing knee-high waders without getting yelled at.

"You could ask why we're doing this instead of everything else that we could be doing, but this is everything else," student Geneva Hein stressed. "You need water to grow crops, to cook, to wrestle -- you need it for everything."

Visit the link and see the video at:

<https://tinyurl.com/lesherriverwatchvideo>



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Risk Management
2407 LaPorte Ave
Fort Collins CO 80521
970.490.3506

Student Permission Form for Field Trip (One Day or Less)

Note to Parent/Guardian: In order for your child to participate in this field trip, you must complete Emergency Contact and Permission section on Page 2 of this form and return the completed form by:

School: LESHER MIDDLE SCHOOL Field Trip to: Spring Creek at Stover St.

Teacher: Ben Mayer Phone Number: 970-472-3829

Date of Field Trip: Third Tuesdays Departure Time: 2:05 Return Time: 2:45

Will this field trip occur outside of normal school hours? No Yes

Grade: 6th, 7th, 8th Estimated # of Students: 20

Activities Involved:

We will be collecting water samples for the Colorado River Watch program. This involves preparing water sampling equipment, walking to / from Spring Creek at Stover St., getting in the creek to collect water (if appropriate), making water quality measurements

Transportation: Private Vehicle* PSD Bus Parent/Guardian Responsibility
 Walking Public Transportation Other: _____

* Select all that apply from the following:

PSD Employee PSD Parent Volunteer PSD Student

Each driver must complete the required form(s) and be approved by the building principal.

*Name of Driver: _____

Special Instructions (e.g., items students should bring):

Please bring appropriate footwear and gear to stay comfortable for 30 minutes outside. That may include gloves, hat, long pants, and / or jacket in the cold months. Students do not need to plan on getting in the creek. If students would like to get in the water, they will need appropriate footwear for water. Please bring water shoes if you have them!

Special Procedures and Considerations

Your child's participation in the field trip is voluntary. **Your written consent on the second page of this form is necessary for your child to participate.**

- Field trips may potentially involve risks and responsibilities for your child that are beyond the scope of those normally associated with educational activities at school. Such risks include the potential for personal injury and/or damage to personal property. You are encouraged to inquire in advance concerning the nature, details, and potential risks of this field trip.
- Your child shall be subject to the *Poudre School District Code of Conduct* at all times related to his/her participation in the field trip. As a condition of participating in the field trip, your child shall also be required to comply with all instructions and safety precautions communicated by school officials.
- The School District is protected from liability under the Colorado Governmental Immunity Act for injuries and damages that may arise out of or in connection with the field trip, and any injuries or damages arising out of or in connection with the field trip may therefore not be covered by School District insurance. For these reasons, it is recommended that you obtain appropriate insurance from qualified sources to cover medical expenses and other costs that could result from injury to your child, and damage to or destruction of property belonging to you or your child, which may arise out of or in connection with your child's participation in the field trip. The School District has information available regarding accident and health insurance that may be purchased to cover your child's participation in the field trip. You may enroll at <https://www.psdschools.org/risk-management/student-insurance> or obtain a brochure through the school office.

Principal Review:

Approved Denied
of Adult Chaperones Required: _____
Special qualification required of chaperones OR reason(s) for denial:

Principal's Signature:  Date: 8/11/22

Field Trip To: Spring Creek at Stover St. Field Trip Date: Third Tuesdays

Teacher: Ben Mayer Phone Number: 970-472-3829

Emergency Contact and Permission

Emergency Contact Information:

Parent/Guardian: _____ Cell Phone: _____

Work phone: _____ Home phone: _____

Parent/Guardian: _____ Cell Phone: _____

Work phone: _____ Home phone: _____

Other Contact: _____ Cell Phone: _____

Work phone: _____ Home phone: _____

Is this Field Trip occurring outside normal school hours? No Yes

If Yes:

- My child will not need any medications administered during this field trip.
- My child will need medication(s) administered during this field trip and:
 - I will be attending the field trip and will be responsible for carrying and administering the medication(s) to my child.
 - I will be attending but will not be responsible for carrying and administering the medication(s) to my child and will need a District employee to carry and administer the medication(s).
 - I will not be attending and will need a District employee to carry and administer the medication(s).

Field Trip Permission and Assumption of Risk:

I hereby grant permission for my child, _____, to participate in the field trip and associated activities described on page 1 of this form, subject to the *Special Procedures and Considerations* specified on page 1 of this form. In consideration of Poudre School District allowing my child to participate in the field trip and associated activities, I hereby release and hold harmless the School District and its board members, employees and agents from any and all liability, claims, causes of action, damages and demands of any kind whatsoever (except willful and wanton acts or omissions) that may be brought by my child or on my child's behalf for any and all damages, including personal injury to my child, arising out of or in connection with my child's participation in the field trip and associated activities. My child and I understand and appreciate the risks and dangers of my child's participation in the field trip and associated activities, and assume the risk of any and all damages, including personal injury, which the child may incur as a result of such participation.

Signature of Parent/Legal Guardian Date

Signature of Student (if over 18) Date

Original — Keep on file at school for 3 years.
Forward original to Risk Management if any incident occurred on this field trip involving this student.