

Four Rivers Currents

March 2017

From the Principal's Desk...

OUR FIRST REAL DISTRICT PARTNERSHIP

FOUR RIVERS AND TURNERS AWARDED GRANT FOR STUDY GROUP

This past fall on the day after the defeat of ballot measure #2 to expand the number of charter schools in Massachusetts, Gill-Montague Superintendent, Michael Sullivan, emailed to see if he could visit Four Rivers to learn more about what we do. His reaching out led to a visit from him and the Great Falls MS/Turners Falls HS Principal, Annie Leonard, following which our Assistant Principal, Susan Durkee, and I went to visit them at their school. The main question on our minds: how might we work together to bring improvement to both schools? The answer we came to involved forming a study group of teachers from both schools to learn more about the Next Generation Science Standards, a reform coming to Massachusetts that emphasizes scientific inquiry and scientific thinking skills over long lists of scientific facts to memorize. This connection and this idea led to a grant proposal, which we just found out has been awarded. We have a new partnership!

Here are some of the details:

The Gill-Montague Regional School District and Four Rivers, with professional development provided by Clark University, were awarded a competitive grant of \$35,000 by the MA Department of Elementary and Secondary Education (DESE). Of the seventeen applicants for funding, only four were granted.

In June, eleven teachers--six from Gill-Montague and five from Four Rivers--will participate in a course sponsored by Clark University called The Next Generation Science Exemplar system (NGSX). Teachers will study what NGSX designers describe as "three-dimensional (3D) science learning... argumentation, explanation and modeling...working with core ideas of science, science and engineering practices, and crosscutting concepts." How do we--and scientists before us--form evidence-based explanations for phenomena in the world? And how do we teach our students to do so?

Next school year, the teachers from the two schools will meet four times to look at student work and analyze the impact and effect of the NGSX practices on student learning in their science classrooms. Teachers will focus on learning to implement high leverage practices. In addition, the UMASS Donahue Institute will provide program evaluation and data on student outcomes.

The goal for Gill-Montague and Four Rivers then is to share what we learn through this experience with other science teachers in area district schools, to improve science learning for all students.

One reason for excitement is that this partnership embodies one of the original purposes of charter schools. In the 1993 law establishing charter schools, six of the seven purposes listed relate to innovation or replication:

"The purposes of establishing charter schools are: (i) to stimulate the development of innovative programs within public education; (ii) to provide opportunities for innovative learning and assessments; (iii) to provide parents and students with greater options



Peter Garbus, Principal

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Grade 7 News

SCIENCE

The explicit learning targets for 7th grade Fieldwork at UMass, organized in collaboration with Graduate Women in STEM (GWIS):

- I can listen actively and attentively to expert presentations and ask questions that allow me to deepen my understanding of *House of the Scorpion* by making connections to current science research
- By consulting science experts, I can determine what science in *House of the Scorpion* is FICTION and what science is FACT.

The "secret learning targets" for 7th grade Fieldwork at UMASS:

- I can see myself on a college campus and experience doing science in a research laboratory.
- I can experience women as scientific experts, researchers and leaders in STEM.

Here are a few quotes from the thank-you notes students wrote:

"Thanks to Nelle for giving us a clearer understanding of cloning in the book and in real life. I learned that human cloning is actually illegal in real life and that we have only cloned animals so far." - *Liv Kingsley*

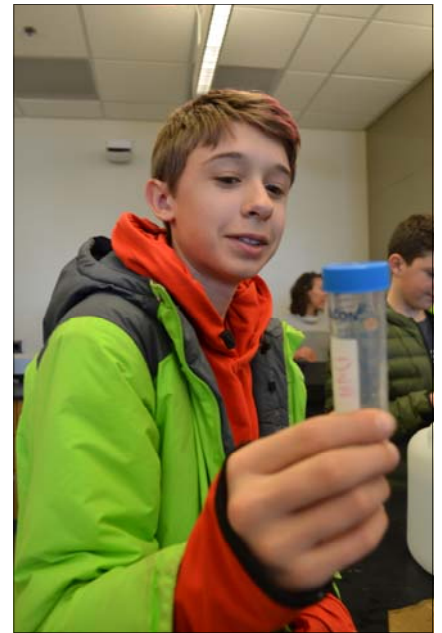
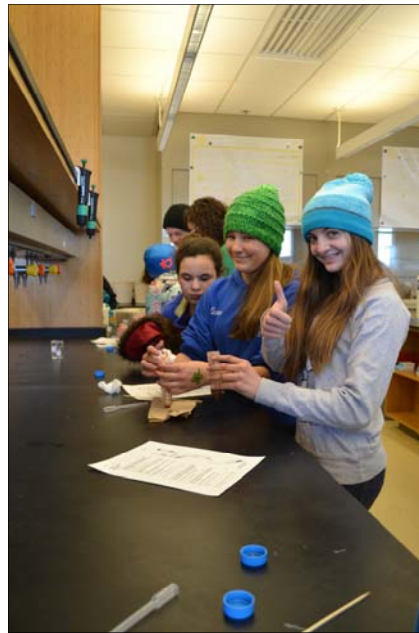
The presentation on water pollution really helped me understand parts of the book that talked about water sources and water pollution and the controversy around that in the book. Pallavi's presentation on air pollution really opened my eyes to the problems in the world and the reality of the air pollution around the eejit pens in the book." - *Vivian Goleman*

"I also enjoyed learning about the two pollutions (air pollution and water pollution); the harsh reality of 'dead air' and diseases from water was frightening yet captivating." - *Zach Rutherford*

"I had so much fun getting the DNA out of strawberries. It is amazing how people figured out the process of extracting DNA! Using dish soap? WHAT? Awesome!" - *Ashley Schlinger*

"And doing the workshop with Miriam, Maggie and Beata was so much fun. Going through all the steps to separate the DNA from the strawberry made me wonder if this is how you get the DNA from a human?" - *Ellis Tarry*

If you want to hear more about the amazing connections students have been making to Nancy Farmer's HOUSE OF THE SCORPION in Spanish, Science, Social studies, ask a 7th grader to tell you more!



Grade 8 News

MATH & SCIENCE

In 8th grade math and science students have been investigating concepts related to gravity and orbital motion. Our study began by replicating some of the thought experiments of Galileo to address some of our misconceptions about falling objects and projectile motion. Students looked at additional work by Galileo where he investigated how moons orbited the planet Jupiter, and how he used evidence from these observations to support the claim that the Earth was not at the center of our solar system, as was believed by many at the time. As Galileo was seen as one of our first modern scientists, we tried to think and work like him as students investigated ways to back up scientific claims using specific data and evidence. In our final assessment, students constructed and presented arguments using evidence to support their claims about gravity.

Eighth grade students also surprised Ms. Farwell, who will be on maternity leave for the rest of the year, with a whole-grade flash mob inspired by Ok Go's "Gravity is Just a Habit" music video. We had used the video in class to investigate the claim that the video was filmed in "zero gravity". In the flash mob, students choreographed a dance, tossed dozens of balloons and bags of confetti and streamers (and of course, they cleaned it all up afterwards).

Eighth grade science and math will be taught for the remainder of the year by Rachel Mason.

Farewell,

Ms .

Farwell

Welcome,

Ms.

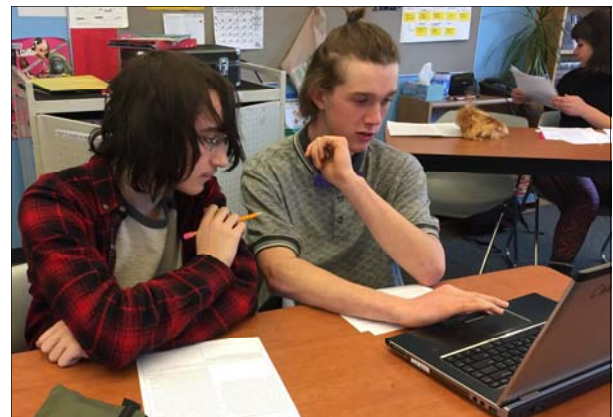
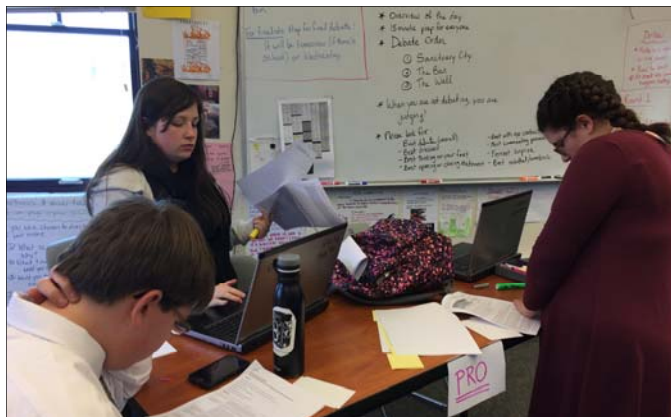
Mason!



DIVISION 2 NEWS

HUMANITIES

Ninth graders are in the midst of the Immigration expedition. They started by visiting and interviewing immigrant high school students across Western Massachusetts. Then they began examining the executive orders issued by President Trump. They gathered evidence and statistics to support both the pro and the con sides of three big issues. They prepared to debate the immigration ban, the proposed wall between the United States and Mexico and the prospect of supporting a safe community proposal in Greenfield. The debates were amazing! On Wednesday, March 15th a small group of students went to the Greenfield Town Council meeting and advocated for Safe Community status. Another group of students is putting together a documentary of the expedition and all of the students are creating a news publication with informative articles, editorials and political cartoons.



Above, 9th graders prepare for their debates

SCIENCE

In Biology, the 10th grade will be starting a lab for their genetics unit that investigates genetics, mutations, and heredity in the species *Drosophila melanogaster*, a species that is commonly used to research Alzheimer's, Parkinson's, and other human diseases. Students will breed multiple generations of this organism to learn about dihybrid crosses and the difference between expected and observed ratios.

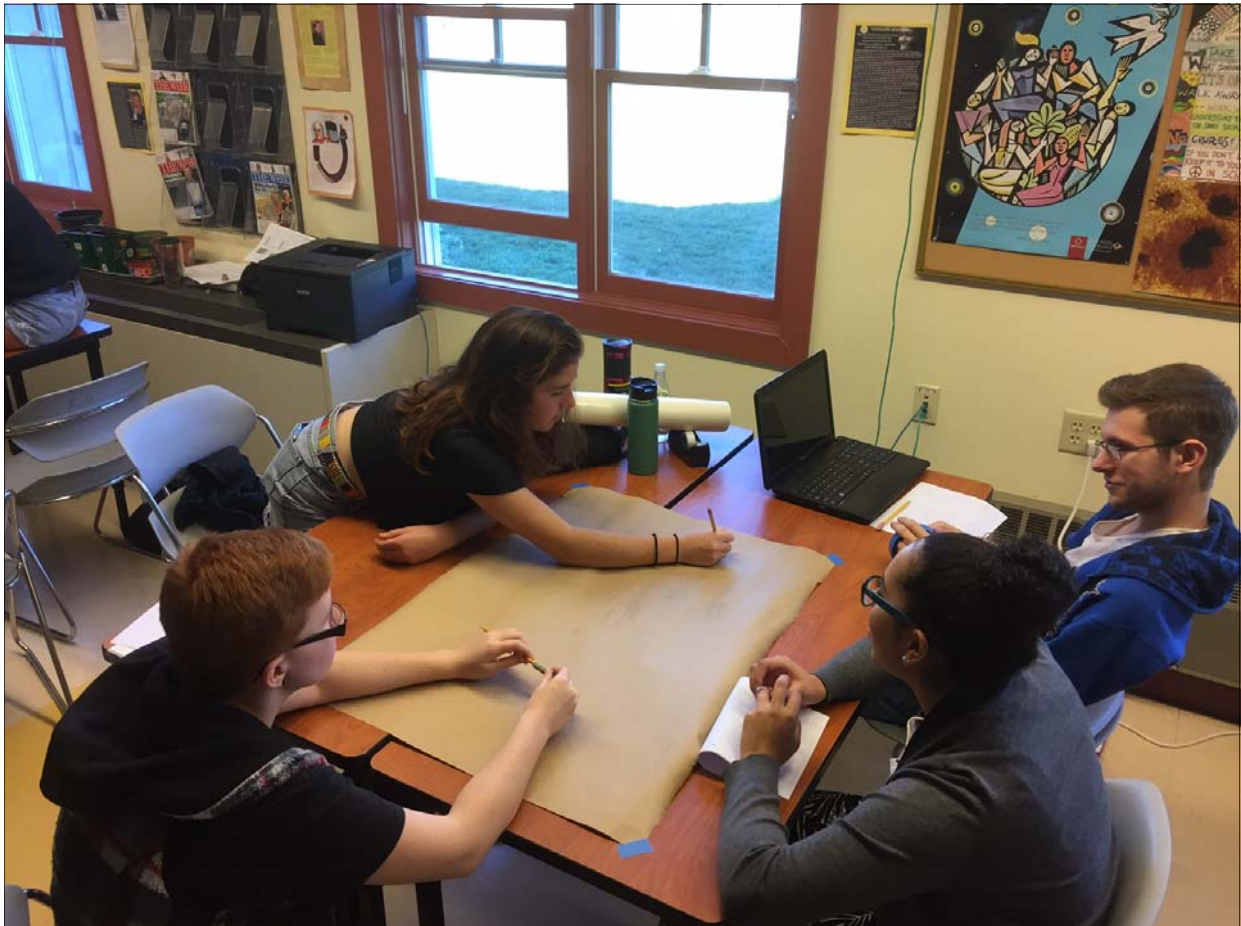
DIVISION 3 NEWS

GRADE 11

In Modern World History, students finished reading Tracy Kidder's book, *Strength in What Remains*. They examined human rights issues using the concept of shelter as a metaphor. Currently they are looking at local and international restorative justice practices. In English, students are hard at work making sense of the classic novel, *Catch-22*. Chemistry has students working closely with Umass researchers who are developing an at-home test kit for arsenic in rice. They believe the test will have a big impact in places where rice is a staple food, such as in Bangladesh.

GRADE 12

In American Civics, the seniors are engaged in action projects, reading political biographies, and discussing the role of music in social justice movements. In English, they are hard at work on their senior writing portfolios. The Senior physics class has been playing with matchbox cars in order to track and determine velocity. In applied math, they have been taking a weekly field trip to local businesses in order to develop their own business plans.



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in selecting schools within and outside their school districts; (iv) to provide teachers with a vehicle for establishing schools with alternative, innovative methods of educational instruction and school structure and management; (v) to encourage performance-based educational programs; (vi) to hold teachers and school administrators accountable for students' educational outcomes; and (vii) to provide models for replication in other public schools."

The Massachusetts Public Charter School Association is currently gathering lessons and ideas about what helps charter-district collaboration work; we hope our work with Gill-Montague can demonstrate these very characteristics:

We need to shift from the word "dissemination", which the current regulations use, to "collaboration" and "partnership". The work of school improvement is about what we have to learn together, not what only one school has to offer.

There are opportunities for schools to work together to solve a shared problem to benefit kids and families, not just for one school in one district.

Charter schools and district schools should pay attention to what each other are doing well, and be public about wanting to learn from one another.

We hope staff in charter schools and district schools see the value in learning from each other.

Now we have some work to do: getting to know each other, learning more about the new standards, and exploring what it means to learn and teach science in the 21st century. With huge appreciation for the Gill-Montague leaders and participating teachers from both schools, we look forward to collaborating.

~ Peter Garbus, Principal ~

Four Rivers Apparel

Spring is almost here; time for a Four Rivers Apparel Order. We are offering Ultimate Frisbee and non-sport Four Rivers apparel. Order forms are due in the school office by Friday, April 7th for May delivery.

Order forms available on the Four Rivers web site or in the school office

Questions: Contact Petra Schweitzer, petra@petraschweitzer.com; 413-325-1875 (call or text).

NURSE'S NOTES

Believe it or not SPRING has arrived! Two items to keep in mind:

1. "FLIP FLOPS" are totally inappropriate for sports or P.E.. They offer no support and are contributors of injury. Please make sure your child has sneakers at school for all running and extended walking activities.
2. ALLERGIES: the season is predicted to be one of the worst in a long time. If your child exhibits watery eyes, frequent sneezing, and nasal congestion please contact his/her physician re: over-the-counter allergy medication such as Claritin or Zyrtec which do not cause drowsiness. Allergy medications are best given in the morning **before** going outside. Please contact me if you have questions or concerns.

~ Jeanne Milton, RN ~

PARENTING IN THE AGE OF LEGAL MARIJUANA ~ An Evening Event for Adults who Raise, Care for and Educate Young People (child care - Kara McLaughlin 863-7512)

Franklin County Tech School, 82 Industrial Blvd, Montague

Thursday, April 6, 2017 ~ 5:30-6 pm Light Dinner; 6-8 pm Presentation, Q&A

COLLEGE ADVISING COLLEGE ADMISSIONS INFORMATION EVENING

Wednesday, April 5th, 6:30—8:00 p.m.

Four Rivers ~ Common Room

with Karen Kristof, Smith College Admissions Officer

and Andy Stenson, Four Rivers College Counselor

We'll cover details of the college application processes including:

- Developing a "Good Fit" list
- What do college admissions officers look for
- Essay writing suggestions & Interview tips
 - The Importance of college visits
 - Academic preparation
 - Standardized testing
 - Financial aid resources

The evening is open to parents and students of all Four Rivers Families. Juniors and their families are strongly encouraged to attend. Questions ? Email astenson@frcps.org.

UPCOMING EVENTS

Middle School Dance—Friday, May 5th, 7:00—9:00 pm in the Common Room

Screenagers: Growing Up in the Digital Age. A film about teenage use of electronic devices, showing Friday, April 28th at Greenfield High School, 7—9 pm.

How to Help Your Teen Make Healthy Choices: A Taste of Motivational Interviewing, **Friday, May 5 (7:15 - 9:00)** with Paul McNeil, Prevention Specialist

Interested in learning a way to communicate with your child/teen which fosters collaboration and motivates positive change? Motivational Interviewing (MI) is a technique used in some psychotherapies, but the basic principal (people want to be healthy) can foster parent/child connection and encourage kids to make difficult positive changes. The founder of MI describes it as "a collaborative conversation style for strengthening a person's own motivation and commitment to change." This training will provide an introduction to the spirit and principles of MI and will give participants an opportunity to experience some of what makes MI different from other approaches.

Looking for a Job? For students only—the Franklin Hampshire Youth Center Web Site list jobs that appropriate for teens: <http://fhyouth.org/drupal/>.

Scenes From: **SHERLOCK HOLMES**
and the **WEST END HORROR**



Congratulations to the entire Cast and Crew, and Director Leah Plath for a Job Well Done!



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248 Colrain Rd., Greenfield, MA 01301

Four Rivers Charter Public School



Four River Charter Public School is dedicated to educating young people and lives of learning and service. The school offers a rigorous academic program aligned with the Massachusetts curriculum frameworks and an emphasis on character development for moral and social responsibility. Three central themes – nature, technology and community – pervade the teaching and learning at the school. Four Rivers works closely with parents and seeks both to serve and learn from the many resources of Franklin County.