

## Praxis: The Science and Technology Network



We've arranged a civilization in which most crucial elements profoundly depend on science and technology.

Carl Sagan

### Scientist of the Month:



- Name: Scott Cairns
- Area of expertise: Chemical Warfare agents
- Scott Cairns and the organization he works for, OPCW, won the 2013 Nobel Peace Prize for their work after the August 21st, 2013 attack of chemical weapons in Syria, killing 1,400 civilians.
- Scott has ties to Medicine Hat, as he was employed at DRDC - Suffield Research Centre as a chemist from 2002-2007. He provided chemical expertise to military and government agencies, as well as training to the Canadian Armed Forces to identify and protect against chemical agents.

## Science Fair News



- Register on-line** for the Kiwanis Regional Science Fair from Jan. 31 - Mar. 15 at <http://www.seab-sciencefair.com>
- Science Fair Session:** Thursday, January 30 at 7:00, MHC Courtyard: Attend this session to find out more about what to expect, steps to preparing a project, and other key information.
- Science Experience 101** continues to visit schools to help teachers with everything Science Fair. To find out more about bringing science fair to your school, email Cindy at [scienceexperience101@gmail.com](mailto:scienceexperience101@gmail.com)
- SEATCA:** On February 20th and 21st, Praxis will be at the Southeastern Alberta Teachers Convention. Stop by our booth for some great give-aways. Also, watch for our session on Science Fair in the program and attend for a great treat!

### Upcoming dates for in-school science fairs:

- St. Francis Xavier School  
Jan. 16, 1:00-3:00
- Cornerstone Christian School  
Jan. 23, 2:00-3:00
- Brooks Junior High School  
Jan. 29, 12:00-3:00
- St. Michaels School  
Feb. 28, 9:15-12:30
- George Davison School  
Date TBA
- St. Thomas School  
Date TBA
- Seven Persons School  
Date TBA
- Crestwood School  
Date TBA
- Connaught School  
Date TBA

Please contact Praxis if you would like to bring science fair to your school!

Email: [praxis@praxismh.ca](mailto:praxis@praxismh.ca)  
Phone: (403) 527-5365

Thank you to the following businesses for their support of Science Experience 101:



- Big Country
- City Signs
- TS&M Supply
- Maple Creek Endless Tubing
- Bona Vista Homes
- Jim's Painting
- New Castle Mortgages

### Upcoming Events

- Jan 30—Science Fair Information Session at MHC Courtyard, 7:00pm
- Feb 20 & 21 - Southeastern Alberta Teachers Convention
- Mar 22—MHC Chemistry
- Mar 22—KIWANIS Regional Science Fair
- April 11—Operation Minerva
- April 29—Regional Skill Competition
- May 9 -Operation Thoth
- May -Chemistry All Around Us

### Praxis News

Some exciting things have been happening at Praxis!

#### Methanex Donation



Paul Akloyo presents a cheque for \$2,500 to Praxis Board members (L to R) Cathy Linowski, Karen Saffran, and Brian Sabiston. The cheque represents a \$2,000 do-

nation from the Methanex Social Responsibility Investment Program, as well as \$500 from Methanex on behalf of Community Advisory Panel (CAP) member Ryan McMullen. Praxis plans to use these funds to provide resource material for teachers, students and parents.

**We are revamping our kits:** If you have borrowed our kits in the past, you will notice a difference next time! Try our improved Light and Shadows kit with new components such as our 'Newtons Colour Disc', "Tricolour composition of light instrument" and a class set of "colour mixing glasses". We are adding new components to our other kits daily.

### Chemistry All Around Us:



In May, Medicine Hat will have a visit from the charismatic Dr. Lucio Gelmini!

Dr. Gelmini visits schools all across Alberta to get children excited about science. If your school would like to have a spectacular demonstration that goes FLASH! BANG! BOOM!, please contact Praxis to book yours, space is limited. To see videos of Dr. Gelmini's presentations, go to [www.youtube.com](http://www.youtube.com) and search for <<Dr. Gelmini>>.

## EGG-CITEMENT!

### How to Make a Folding Egg:



#### Materials List:

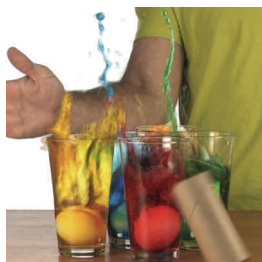
- Raw egg
- Pin or a thumb tack
- Long needle or plastic coffee stirrer
- Tall glass
- Vinegar
- Patience

1. Use a sharp pin, a thumb tack or the tip of a sharp knife (yes, with the help of an adult) to poke a small hole in both ends of the egg. -
2. The best way to break the yolk is to poke a long needle or something similar (like a plastic coffee stirrer) through the hole and to carefully poke around inside the egg.
3. One method is to clean off one end of the egg, cover the

hole with your mouth, and blow the egg liquid out the other hole.

4. Place the hollow egg in a tall glass or jar and completely cover the egg with vinegar. Leave it there for up to 10 days.
5. Once the bubbles have stopped forming (again, this could be up to 10 days so be patient!) pour off the vinegar and carefully rinse the egg with water. The outside shell is gone!
6. Gently squeeze out the water, and watch it slowly puff up again! Add some baby powder to give it a 'real' look and to keep it from drying out.
7. Amaze your friends with your magic egg!

### Egg Drop: Newton's Law of Inertia



#### Materials List:

- Cardboard tube
  - Pie pan
  - Eggs
  - Water
  - A large drinking glass
  - Tray (optional)
  - Food colour (optional)
1. Fill the large drinking glass about three-quarters full with water.
  2. Center a pie pan on top of the glass.
  3. Place the cardboard tube on the pie plate, positioning it directly over the water.
  4. Carefully set the egg on top of the cardboard tube.
  5. With your writing hand, smack the edge of the pie pan horizontally. Don't swing up, and don't swing down! It's important that you hit the pie pan horizontally and use a pretty solid hit, so plan on chasing the plate and tube.
  6. Your astonished guests will watch the egg plop nicely into the water. It's even more fun to watch someone else try to drop the egg. Science is so cool!

See more at:  
[www.stevespanglerscience.com](http://www.stevespanglerscience.com)

## MHC

### Drop-in Tutoring:

The Medicine Hat College Drop-In for grades 7-12 has started up again. It is available on Mondays and Wednesdays from 4 PM - 6 PM in room B307.

Teachers will be available to help with Math, Physics, Social Studies, Biology, Chemistry and English.

Students from all schools (even homeschoolers) are welcome to use this service, **free of charge!**

### Chemistry for HighSchool Students:

Brad Pavelich, a Chemistry instructor at the College, is inviting High School students to attend a lab (The Determination of the Ideal Gas Constant) on Saturday, March 22 from 9:00am to noon. Students that complete this experiment and report, and then later attend the college, would be excused from the specific lab during the college semester. For additional information, please contact Brad Pavelich. telephone: 403-529-3974 e-mail: [pavelich@mhc.ab.ca](mailto:pavelich@mhc.ab.ca)

## GOODBYE!



We are sad to say goodbye to our colleague and long time supporter, Lauren Hider. Lauren will be retiring at the end of January, and will be sorely missed. She has been steadfastly involved with our Operation Minerva program and has assured us that retirement will not effect this! Lauren has been crucial to the MHHS science department for 10 years but is now looking forward to spending more time with her grand babies!

### Checklist of Praxis Resources to book ASAP:

- Guest Speakers** for all S.T.E.M. subjects
- Organize **Field Trips**.
- Curriculum Support** for new classes/science teachers.
- Science Fair** information.
- Science Fair **Workshops** for teachers or parent councils.
- Principals:** invite Praxis to speak to the teachers at a staff meeting so they will know what they can utilize in their classroom.
- Hands on Learning Kits:**
  - ✓ Air and Aerodynamics/Flight
  - ✓ Astronomy/Sky Science
  - ✓ Building Things/Levers & Gears
  - ✓ Boats and Buoyancy
  - ✓ Conserving Our Environment
  - ✓ Digging For Dinosaurs
  - ✓ Electricity
  - ✓ Evidence and Investigation
  - ✓ Hearing and Sound
  - ✓ Insects and Creepy Crawlies
  - ✓ Magnetism
  - ✓ Powerhouse Model
  - ✓ Rocks and Minerals
  - ✓ Trees and Forests
  - ✓ Weather
  - ✓ Wetlands Discovery
- And many more!**
- \*\*\*Free of Charge\*\*\***

For all your Science needs  
contact Praxis

Phone: (403) 527-5365  
Email: [praxis@praxismh.ca](mailto:praxis@praxismh.ca)  
Web: [www.praxismh.ca](http://www.praxismh.ca)

Our  
affiliates:



Don't forget to watch for our Saturday column "Science Smart" in the Medicine Hat Newspaper for more fun activities and experiments!!