

THE CLC CAPCOM

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Winter 2011



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Welcome Aboard!

Climb on in and buckle up for a quick tour of what's going on at the CLC and beyond this winter season. We have certainly hit the ground running: by the end of December, we will have run 100 missions for our 2011-2012 school year!



One of our new initiatives to better communicate with YOU is this newsletter! While we love to share information, this newsletter is not designed to be one-way; we'd love to hear your thoughts as well. Feedback, comments, questions... feel free to contact us as we establish this format.

In the end, after all the rendezvous with comets and voyages to Mars, after all the teachers trained and presentations made, it all comes back to our goal of helping teachers help their students reach for the stars. Together, we look forward to seeing where 2012 takes us in that adventure!

Space For Everyone

Here at the Challenger Learning Center, we often hear comments from visitors: "Gee, I wish I could come!" or "Can people other than students experience the CLC?" Our answer is a resounding YES! with opportunities coming up:

On **Friday, January 27th**, the CLC will be hosting a "Pizza & Mission" family night. Come at 6 pm to enjoy some pizza, then fly a mission until 9:30 pm. Participants must have at least a 5th grade reading level, but it's sure to be a blast no matter what your age! Cost is \$20/person and includes a pizza dinner.

On **Tuesday, February 7th**, join us for a romantic couples' night at "Fly Your Sweetie To the Moon".

Start the evening off with us at 6 pm with a romantic Italian dinner, then continue to perform a mission to the moon with your sweetie by your side! Cost is \$80/couple and includes dinner.

"Can people other than students experience the CLC?"... YES!

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For more info, call 309.268.8700 or find us online:
<http://challengerlearningcenter.com/public/>

Program Updates:

This year the CLC is running a slightly different **schedule for mission times**. Now our morning missions run from 9-11:30 am, and our afternoon missions run from 11:30-2 pm. Please be sure to arrive 15 min prior to start time to get the most out of your experience!

Our **Mission pricing** is still staggered: \$500/fall, \$600/winter, \$700/spring, but don't forget we have **scholarships available!** Learn more by checking

out http://challengerlearningcenter.com/teachers/5th-8th.php3_n/ - Scroll down to "Registration" and click the link under Step 1 entitled "2011-12 Scholarship Grant Application". Then it's as easy as filling out a form!

This year teachers can extend their day at the CLC when they sign up for the **Phenomenal Physics Presentation!** This exciting presentation is based on ISU Professor Dr. Jay Ansher's fantastic Physics on the Road program and is sure to be a fun time for everyone involved. Cost is \$50/group; for more info contact the CLC office.



New at NASA: “Curious” Missions...

What do GRAIL, MESSENGER, JUNO, Voyager, New Horizons, and Cassini all have in common? Each is the name of an explorer currently gathering data for NASA! Space exploration has never been busier than it is now: at this time more than a dozen unmanned spacecraft—robots!—are investigating our solar system and beyond. On Saturday, November 26th, NASA launched its newest extra-terrestrial explorer, the Mars Science Laboratory rover Curiosity.

Using a suite of instruments—including 17 cameras, a laser to zap rocks, and a 7ft arm with a “hand” full of tools—this robotic field geologist and mobile geochemical and environmental laboratory will analyze samples of Martian rocks and soils to determine if Mars could have ever hosted microbial life.

The rover is off to a good start in her 8-month journey to the Red Planet. When she arrives at Gale Crater, she’ll be the first to use an innovative “sky crane” system for landing (as opposed to a traditional airbag setup). From here, there’s no telling what she’ll find as she explores and samples Mars!

To learn more about Curiosity and find great activities and resources, check out the mission page: <http://mars.jpl.nasa.gov/msl/>

Snickers Science

Curiosity is not the only one who can have fun with geology. This issue’s STEM Activity mixes the fun of geology with the fun of candy bars to explain plate tectonics! To begin, have students use their fingernail to make a few breaks in the “crust” (top) of the candy bar.

To illustrate *tension*, gently pull on the edges of the candy bar and notice the “plates” moving apart to reveal the caramel “asthenosphere”. To illustrate *shearing*, push the plates back together, then slide one half of the candy bar forward and the other backwards. For *compression* push the ends of the candy bar together and notice the plates colliding—you may even see one plate slide over the top of another.

This simple activity is a fun (and tasty!) way to begin any lesson on plate tectonics. For more info, or to find more STEM activities tied to Illinois Learning Standards, check out Science Spot at <http://www.sciencespot.net>.

Talking Points

High School Teachers Needed!

The CLC is getting ready to Beta-Test the Challenger Network’s new HS mission scenario, “Encounter Earth”. If you know a high school teacher who might be interested, contact Stacey Shrewsbury at 309.268.8701 or stacey.shrewsbury@heartland.edu

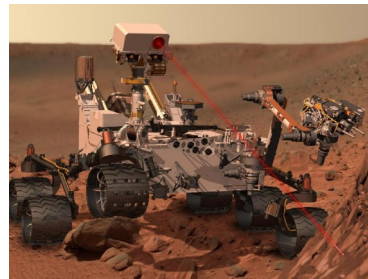
Summer Fun

Mark your calendars to register by 6/1/12 and get ready, because this summer the CLC will once again be offering a variety of science summer camps for incoming Kindergarten-12th grade students. You won’t want to miss it! Visit our website for details as summer nears

Your Questions Answered

In future issues of the CLC newsletter, we’d love to feature answers to teacher questions. If you have a questions that you think could benefit our teachers, contact us at 309.268.8700 or email Libby Norcross at libby.norcross@heartland.edu

Spotlight: Curiosity



With a set of tools much larger than its predecessors’, Curiosity will give scientists an incredible new look at our neighbor planet.

Quick Facts:

Mission: Determine if conditions have ever been favorable for microbial life and for preserving clues in rocks

Launch Date: Sat. November 26, 2011

Launch Vehicle: ULA Atlas V 541 rocket

Landing Date: Mon. August 6, 2012

Landing Site: Mars’s Gale Crater

Weight: about 2,000 lbs

Size: about the size of a small SUV

Below: one of our Flight Directors had a chance to see the launch in person. What an exciting (and loud!) experience!

