

Teaching Science at CJDS Incorporating Science Standards for All Ages

By Suzanne Isola

On November 11, I traveled to Fort Lauderdale, Florida to attend the National Regional Science Teachers' Conference. I was on a mission for Charlotte Jewish Day School. How could we incorporate the North Carolina Science Standards with the new and exciting practice of using science as a vehicle to teach thinking skills? The Standards focus on the subject matter. What is the life cycle of a frog? The new strategies focus on the thinking, analysis and organizational skills that can be taught in the process of studying the frog's life cycle.

At the conference I learned the NSTA (National Science Teachers' Association) is working to publish a new set of national standards sometime after the first of the year. All but three states are participating in the adoption of these standards. North Carolina is one of the three opting out. Where does that leave a small independent school that is preparing its students to enter another school system at the end of fifth grade? Will our students be prepared for science in another academic setting? Will all of the new challenges be met with success? What are the expectations of these schools?

The dilemma is one that definitely deserves our attention. After teaching science in the Charlotte area for over fifteen years, I have a few thoughts on how this can be approached. My name is Suzanne Isola and I am enjoying my second year at CJDS. Last year I had the great fortune to be a part of the fabulous yet short lived middle school. It provided me with the opportunity to observe the science skills and thinking strategies that had been developed in the previous years. Teaching grades five through eight allowed for observation over time. Were the skills a result of teaching or of maturing brain function?

Addressing this question requires a two prong approach. First, it must be determined exactly what subject matter is being taught at what grade level. Is there a natural progression from one year to the next? Secondly, what skills and strategies are being practiced and learned in each of

those years? A data collecting quest revealed a wide variety of topics, activities and lessons.

Our seven grade levels offer biology, geology, astronomy, ecology and a small dose of chemistry. This piques an overall interest in science. The goal is to hook the students at a young age in order to generate a lifelong desire to explore and learn about the world around them. If science topics are the focus, then CJDS is right on track. But what about skills, strategies and thinking processes?

All of our science lessons are taught through year-long inquiries. The students learn through the use of previously taught skills and the development of new ones. Throughout each scientific inquiry students learn how to ask questions, observe and experiment. The students begin to learn different methods of data collection and analysis. There are also opportunities to master the use and methodology of the tools of science. Measuring devices such as graduated beakers, scales, thermometers and rulers are introduced and mastered as the students pass through the different grade levels. These concrete skills are well represented and practiced in our science discovery.

Strategies and thinking processes are an ongoing challenge that must not be taught in isolation. Science is an excellent "tool" for introducing organization, problem solving and the questioning of thoughts, ideas and theories. Remember, most great ideas, discoveries and inventions are born out of challenging observations and theories. New perspectives and approaches lead to solutions and free form discussions. Both provide an excellent learning environment. But these strategies and processes need to be applied to every topic and lesson, not just science. Wrong answers should be praised for being an interesting observation or idea. Being told that you are incorrect is perfectly acceptable. How else can a student proceed to a solution or new perspective? This provides opportunities for learning.

Charlotte Jewish Day School is on the cutting edge of incorporating this new approach to learning



Yossi Berendt dissects a cow's eye.

in science. Skills, strategies and thinking processes can always be improved and tweaked by applying these methods in math, reading, writing and history. CJDS is producing students who observe, question and problem solve. We are building the foundations for our future leaders. We will be in competent and caring hands. ☆

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Camps Airy and Louise Updates Now on Twitter

Campers and their families can now receive up-to-the-minute updates about their summer homes through Twitter.

Shira Kahan, special projects director at Camps Airy and Louise, says the Twitter application enables camp to keep campers and their families updated on construction projects, reunion activities, registration deadlines, and reminders. Campers also enjoy receiving birthday wishes from camp through Twitter. Updates are provided daily.

Interested campers are encouraged to register with Twitter through the camp Web site at www.airylouise.org by entering

the individual camp sites or at www.twitter.com. Those wanting instant contact may register for updates through Camp_Louise or Camp_Airy. The messages will be delivered to their cell phones immediately upon their posting. Users may "tweet" back to camp to comment on a posting. Those desiring to provide information about an event to share with fellow campers should send information to twitter@airylouise.org. Publication is up to the discretion of the Airy/Louise Twitter editor.

Camps Airy & Louise provide overnight camping experiences for children entering 2nd through 12th grade. ☆

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Milton Goldstein, CLTC
Certified Long Term Care Specialist
Charlotte, NC: (704) 442-5618
Birmingham, AL: (205) 907-0670
E-mail: miltgold@bellsouth.net
Visit my Web Site
www.goldsteinltc.com
Licensed in 12 States