



The BEACON

News from

The Coalition for Excellence in Science and Math Education

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It's the Little Things

The really big stories that daily make the front page of the paper are often events over which we have little control. And this is probably a good thing; I truly have no desire to run the world.

I do, however, have a strong desire to see math and science education strengthened. In my role as president, I've had the opportunity to see first hand some of the wonderful things that CESE and its members have accomplished.

Recently a local school district was approached by an individual who wanted the district to purchase a creationist video to be shown in science classes. An employee of the district, who is a CESE member, used connections through CESE to get information to put together a briefing for the district's administration.

This was never a front-page story because it was handled very quietly and appropriately. The district's administrators had a wonderful, fact-filled briefing that gave them sound science and legal reasons to reject the video. It's the little things.

Another recent event occurred when a creationist parent vocally challenged a middle-school science teacher over the teaching of evolution. The teacher was able to provide the parent with a copy of the current science standards, which are the result of the hard work of many CESE members. These standards truly do provide protection for teachers.

This, too, will never make the front page, but it illustrates to me so clearly how important our work is as an organization. It's the little things that add up to something far greater.

What a great group of people!

Steve Brügge, President

We interrupt your reverie for a very important announcement. Now that we have your attention, please check your mailing label for dues expiration date. "No record" indicates you're way overdue, and we'd be delighted to receive some remuneration to help defray costs of scholarships, Web page, brochures, Beacon printing, postage, and more. Details are on page two.

Thank you for your interest in CESE.

How We Whipped the "Kansas Tornado"

**Steve Lopes, President
Kansas Citizens for Science, Inc.**

Prelude

The Kansas State Board of Education (KSBOE) had long been a backwater governing body in a backwater state. I know from personal experience as I ran my wife's campaign for the board ten years ago when it was difficult to find any interest in any venue. That all changed four years ago when Republican social conservatives, stung by a series of setbacks in the legislature, set their sights on the KSBOE.

Long before obtaining international notoriety, the conservatives secured half of the votes on a foolishly designed ten-member board with self-executing powers. Only the Kansas National Education Association (KNEA) teachers union was concerned about the gridlock created by endless 5-5 votes.

The conservatives first attacked Quality Performance Accreditation (QPA), an outcomes-based revision of assessment procedures that had been mandated by a previous KSBOE. The math and reading standards were revised to reflect the social conservative agenda with little public response. But they stepped on the third rail when they proposed science standards with a decidedly unscientific slant.

Standards and Quality Education

State-mandated curriculum standards, although recommendations, are able to influence what is actually being taught in classrooms. Here's how it works. The State sets benchmark standards as topics that are going to appear on standardized assessments that will eventually influence local school accreditation. Loss of accreditation debases the value of the education received and the quality of a graduate's diploma. It also gets the attention of the electorate.

A deeper meaning is the implied statement of the State's belief in what is worth teaching in our schools. The integrity of the entire education program rests on a foundation of quality standards supported by the best knowledge and practices. Conversely, weak, unsupported standards indicate a substandard education system.

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www.CESAME-NM.org

The Coalition for Excellence in Science and Math Education (CESE) is composed of interested citizens throughout New Mexico and the nation, including scientists, engineers, educators, university faculty, members of the clergy, and parents. CESE is nonpartisan and non-sectarian, and welcomes members of all religions and political philosophies. This coalition works to improve science education and science literacy for all citizens. The organization also provides support to teachers, students, the public, and state officials who deal with education issues. We want to ensure that the Beacon of Enlightenment is not extinguished in 21st century America.

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Membership Information: please contact any of the above officers. The only requirement for CESE membership is the acceptance of our mission, above, as a statement of the organization's purpose. Annual dues are currently \$25 for an individual, \$35 for a family membership, and \$10 for students. Please make check payable to CESE and mail to CESE, 11617 Snowheights NE, Albuquerque, NM 87112. Profession and/or affiliation(s), e.g. "Science teacher, member of ASDC" are helpful as well as E-mail address. (Most of our communication is by E-mail.)

Science Standards as Theater

Long before television networks discovered the KSBOE, Kansas science educators were gravely concerned about possible revisions in the standards. An earlier enlightened KSBOE had appointed a best-and-brightest "Writing Committee" of 27 talented science education professionals who had submitted several drafts, each with increasingly superior standards. In early 1999, some members of the Writing Committee, academics, and other concerned citizens met to consider a disturbing turn of events.

There were rumors, later proven true, that the social conservatives on the KSBOE were privately drafting a different set of standards that would better reflect their religious beliefs. (Kansas Citizens For Science [KCFS] would later expose to the public and media that the substitute standards were drafted with the active participation of Tom Willis from the Mid-America Creation Science Association.)

Throughout the spring of 1999, monthly KSBOE meetings saw ever-longer lines at the public comment microphone with hundreds of speakers advocating for or against the proposed science standards. The debate became more intense and more divisive up to the actual August 11 vote.

Organizing a Loyal Opposition

In an effort to coordinate testimony before the KSBOE, supporters of the Writing Committee recommendations started meeting on the University of Kansas campus. On August 5, 1999, in room 2021, Dole Hall, "Citizens For Science" was founded. A media conference was held on the steps of the Kansas Natural History Museum Sunday, August 8, where KCFS announced its founding with a denouncement of the science standards before the KSBOE.

The following Wednesday, before dozens of television cameras with international links, the KSBOE voted 6-4 to approve creation science-friendly standards that minimized teaching the theories of evolution, Big Bang, and geological time. Kansas instantly entered the Wonderland of derogatory editorial cartoons, international media disgust, late-night comedian fodder, and abashment.

In fairness to the KSBOE majority, they did not ban the teaching of evolution, Big Bang, or geologic time. What they did was open the standards to "local control," throwing the matter to local boards of education. This is like asking the local board to consider teaching verbs over nouns. Now every anti-science yahoo could intimidate local boards to adopt Intelligent Design (ID) texts, such as was attempted in Pratt, KS.

Kansas Citizens For Science (KCFS)

"Don't mourn; Organize!" - Joe Hill, IWW

KCFS established a steering committee and a closed e-mail list for daily communication. Security was tight; all list participants had to be vouched for by a current member, and all were subject to blackballing by anyone on the list. We didn't want to waste time dealing with spoilers and moles. We are delighted that over 200 participants continue to offer positive contributions to our discussion list (Evolve-L) with little distraction.

We retained a pro bono attorney to help us file as a non-profit 501(c)3; draft bylaws; set dues; and hold an initial meeting

December 5, 1999, to approve the bylaws, elect officers, and a 22-member board. The nominations for the board of directors came from the steering committee and enthusiastic posters on Evolve-L. There was a conscious effort for diversity such as clergy, public school science teachers, non-Northeastern Kansas academics, businesspeople, and local school board members. We were fortunate to have elected (and obtained the technical skills of) an experienced webmaster, a media consultant/writer/producer, and a professional labor organizer.

Political Involvement

Considerable discussion went into the decision to file for 501(c) 3, tax-exempt status, but it was decided that this was how our resources could best serve the cause. We partnered with MAINstream Coalition, a 501(c) 4 organization that did the political action heavy lifting. Many KCFS members also joined MAINstream as individuals.

KCFS monitored local school board meetings and offered expert testimony when requested. Newspapers were monitored for articles and letters to the editor. Evolve-L readers crafted immediate and thoughtful responses, usually overnight, which were e-mailed to the editor for publication.

We sponsored ScopesWeek, a media event in Wichita, Manhattan, and the Kansas City area in July just prior to the August 1 primary election. (N.B.-Each city was a media center for a challenged state board election.) To “celebrate” the 75th anniversary of the infamous Dayton, TN, trial, People for the American Way sponsored *Origins*, an original tele-play based on the actual transcripts of the Scopes trial, with Ed Asner as William Jennings Bryan, and James Cromwell as Clarence Darrow. KCFS had speakers and events scheduled throughout Kansas that week.

On Tuesday, August 1, the voters spoke—no, SHOUTED a resounding “No more!” Of the four social conservatives, only one survived. Moderate Republicans defeated conservatives Mary Douglas Brown, and Linda Holloway, and another moderate won the seat vacated by social conservative Scott Hill. Only one social conservative, Steve Abrams, survived the primary. With all Democrats and the Republican moderates supporting quality science standards, it is most likely that the outcomes in November will cause a restoration of quality science for all Kansas students.

Cyberorganizing

KCFS success was due to “cyberorganizing” through closed e-mail lists and a quality webpage. KCFS founders wanted our organization to have statewide participation, but geography makes face-to-face meetings difficult. Online communication was vital to our success. The establishment of three proprietary lists met this need.

1. For the elected board of directors, “Evolve-Lead-L,” or the evolution leader list, was created. On this list the 22 members of the KCFS board conduct the day-to-day business of the KCFS, Inc. We are learning what can be done online and what requires face-to-face interaction at our monthly board meetings.

2. Strong supporters of our cause (who were vetted for security reasons) were allowed to join “Evolve-L,” which to this date is noted for rich topical conversation. Discussions of strategy and tactics are avoided, but opposition exposure, media sharing, and endless philosophical discussions are featured. A number of New Mexico supporters have contributed to this conversation, and for this we thank you.

3. For the nearly 400 others, we have the weekly “Act-L” for activists who enjoy a stimulating digest of media articles, web sites, resources, quotes, and so forth.

How KCFS Works

The KCFS board meets face-to-face at 2 PM on the first Sunday of the month in the Potwin Presbyterian Church in Topeka. The pastor, Rev. Douglas Phenix, is on the KCFS board. Our agenda always includes a strategy discussion for the KSBOE meeting in the coming week.

Between meetings, the board conducts business online, often making proposals and authorizing expenditures. Through “Evolve-Lead-L” we try to manage the “Evolve-L” discussion to keep participants focused on task.

Our web page (www.kcfs.org) has become a “go-to” resource for other states facing a similar crisis. We also get e-mail leads from international media and like-minded groups. We are currently planning a Spring, 2001, summit in Kansas City, for any state experiencing similar challenges.

What Next?

After our annual meeting November 12, the newly elected leaders will retreat in January to revisit the KCFS mission. We will assess our resources and agree that we’ve won this battle, but must prepare for the longer war.

Steve Lopes, is a professional organizer for the Kansas National Education Association and a past-president of Kansas ACLU.



Book Report

The Triumph of Evolution and the Failure of Creationism

by Niles Eldredge. W. H. Freeman and Company, New York, NY. 10010
Copyright © 2000 ISBN 0-7167-3638-1

“The Triumph of Evolution destroys any notion that evolution is a theory in crisis or that science is a closed activity driven by philosophical agenda. Niles Eldredge’s hard-hitting book makes it clear that the ultimate motivation for doing evolutionary science is neither cultural, nor religious, nor political. Rather, in the best tradition of human inquiry, it is the search for truth. There is, in his plainly-stated view, an objective reality, a genuine and natural world that invites our inquiry and rewards our efforts to understand. Throughout his career, Niles Eldredge has been a scientific leader, analyzing the ebb and flow of great biological dramas that have played out over millions of years of natural history. With this lucid and convincing book, he also takes a leading position in the modern struggle for rationality and common sense.”

—Kenneth R. Miller, Professor of Biology, Brown University, is a CESE member and author of *Finding Darwin’s God*

“I can’t imagine a better book by a finer scientist and writer on a more vital and contemporary subject. Eldredge refutes creationism with the best tools of scientific facts and logic but then shows how all good science cannot debase, but can only complement, or search to find ethical values and to grasp the meaning of our existence.”

—Stephen Jay Gould, Professor of Geology, Harvard University

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The Internet Learning Network

Now more than ever, knowledge of mathematics and science is the gateway to individual opportunity and national prosperity. The Third International Mathematics and Science Study (TIMSS) was a large-scale, global comparative study of national education systems. Although our 4th-grade students did quite well, U.S. students, on average, begin to lag behind their counterparts around the world as they move through the education system, especially in high school.

The mission of the Internet Learning Network (ILN) is to stimulate improvements in mathematics and science education in the United States. This will be accomplished through the ILN web site, live:

<http://www.getsmarter.org>.

Spearheaded by co-chairs Alfred Berkeley, president, The Nasdaq Stock Market, Inc., and Richard Atkinson, president, University of California, and developed and directed by the Council on Competitiveness, the objectives of the ILN are to:

–**Develop a free web site for voluntary, no-risk, K-12 self assessment in math and science with national and international benchmarking.** Using the results of the TIMSS, site visitors can compare their performance against students worldwide in the privacy of their own homes.

–**Link self-assessment with learning and self-improvement.** Knowing how you compare is a beginning. The ILN provides hints, tutorials, and links to other sites to increase understanding and improve performance.

–**Provide leverage for reform in math and science education**

Although the ILN is still a work in progress, the response to date has been remarkable. Since going live in March 2000, it has been visited by over 220,000 users from every state in the union and over 100 foreign countries. Over 3 million hits have come from students, parents, teachers, principals, and every targeted audience. A major surprise was that the majority

of the students are accessing the site from home. Our biggest usage has occurred over the summer.

We have completed development of the assessment and learning components of the ILN employing test items from TIMSS at the 3rd, 4th, 7th and 8th grade levels. Our goal is to complete 12th grade early next year.

Please encourage your students and children to try out the site. There are both fun practice paths and serious “Real Challenges.” The site developers are striving for continuous improvement, so all comments and suggestions are welcome.

State Board of Education Meeting August 22–25

Executive Committee

The Greater Albuquerque Chamber of Commerce gave a Powerpoint presentation. The Board agrees with many of the Chamber’s proposals, and has in fact implemented them over the last few years. However, there were significant disagreements on the status of performance standards and the Chamber’s proposal to completely overhaul the governance system.

Finance Committee

The SBE/SDE budget request was discussed. The staff load recently has been incredible, and has led to stress, overwork, and major turnovers. We recommended significant increases, including adding another data base/statistical person, and increases that we foresee will be necessary as the SDE moves from monitoring to mentoring. We also requested four out-of-state travel positions for the Board, which is now restricted to one. District personnel, legislators, the governor’s staff, everyone travels to meetings and schools in other states. Only one Board member out of 15 can make an out-of-state trip each year!

The Instructional Materials Commissioners were praised for a job well done. Some districts still have not ordered their textbooks, despite such orders being available since the spring.

Accountability Committee

The committee was shown school dropout and attendance data. The original cri-

teria were then adopted. There was a very long discussion of the accountability criteria. Audience input was almost exclusively from district superintendents who said the criteria were too strict, or that we should wait until next year. The committee adopted the interim criteria with the probationary boundary set at the 40th percentile

The school improvement plan was again reviewed.

Strategic Planning Committee

The SDE is making progress in training all its staff in Baldrige quality principles. The Board itself will have its second training session in October.

The Strategic Plan developed last year was a high level policy document. Work began on converting the issues and goals into an SDE operational plan. Many items are already in place; e.g., improved science standards; a broad-based accountability plan that would also replace the old-style accreditation system which never worked anyway (the Santa Fe school district received an acceptable accreditation rating only a few months before the entire district was taken over by the state); revisions to the instructional materials process; beginning implementation of performance-based budgeting; developing a school improvement plan; etc.

The SDE discussed the operational plan’s status, and the realignment of the SDE to better follow the Board’s strategic plan.

The BiE IN program is moving rapidly. Many schools have applied for Baldrige training, including the Sandia program, Strengthening Quality in Schools. Demand has exceeded supply and resources.

The Strategic Planning and Vocational committees then held a joint meeting to get input from about a dozen students from Gallup High and Central High (an alternative school). Students ranged from gifted to average to troubled, including teen mothers. I believe that new high school concepts are badly needed for both the academically advanced and troubled, as well as the “typical” teenager. Technology has given us many options. One important discussion was that the subject mastery should determine progress, not seat time. Some kids might graduate in 2, 3, 4, or 5 years. But the HS diploma can become a sign of major achievement and readiness for the next step, be that work or college.

Instructional Services Committee

Some heated discussion concerned the social studies standards. A draft is promised for January.

Legislative Committee

The initial legislative package was discussed. The SBE is also looking at ways to provide additional funds for schools in need of improvement, and to reduce or eliminate bureaucratic regulations and statutes that inhibit innovation at the local level.

Full Board

Essentially all committee recommendations were adopted. The Belen/Los Lunas boundary issue was resolved completely. A

very difficult licensure hearing was held for a teacher accused of sexual harassment.

Accountability criteria was the most contentious issue. The audience presented more testimony, almost all of which claimed the standards were too high, or discriminated against minorities and the poor. The Board adopted the accountability criteria by a vote of 11 to 1. The list of affected schools has been published and is available on the SDE web site.

Marshall Berman

Dr. Berman is a founding member and a Past President of CESE.

BE PART OF THE *BIGGEST* SCIENTIFIC RESEARCH PROJECT IN HISTORY



If you have a desktop computer with an internet connection, you can participate in what may be the most important scientific discovery of all time (and, incidentally, bring some glory to CESE). A research team at U.C. Berkeley that is involved in the search for extraterrestrial intelligence (SETI) has hit upon a brilliant way to analyze the huge amounts of radio astronomy data to hunt for radio signals from extra-terrestrial civilizations: they've set up a system to farm out chunks of data for people to crunch on their PCs in the form of a screensaver. The project, called SETI@Home currently has 2.4 million participants, making it the largest computing research project ever. In a sense, the project is the world's largest supercomputer, now humming along at approximately 10.2 teraflops/sec!

As you may know, SETI is an attempt to answer the ancient question, "Are we alone?" With some 400 billion stars in our galaxy alone (and perhaps a hundred billion galaxies in the universe), some scientists think that the probability that technologically-advanced, extra-terrestrial civilizations are out there is high enough to merit at least modest efforts to listen for them.

If such ET civilizations are out there, and if the laws of physics are anywhere close to what we think they are, then the most economical way for them to communicate across interstellar distances would be via something like radio signals. Consequently, most SETI projects (almost all of which are privately funded) listen for radio signals across millions of frequencies using large radio telescopes (like the enormous dish at Aricebo, Puerto Rico).

But all of that radio astronomy data needs to be crunched to see if it contains an intelligent signal. How to do this mathematically is a fascinating problem in itself (and you can read about it at the SETI@Home website). The Berkeley group has written a small piece of software (available free at the website) that you can run as a pretty screensaver (or as a stand-alone program) on your computer. When you log onto your internet account, the program quickly (and automatically) connects to the Berkeley site and grabs a data unit (about 300K).

The software then analyzes the data, and sends the results back to Berkeley the next time you log in. It then grabs another data unit, and keeps on crunching. On an average computer, analyzing a single data unit takes about 10-20 hours.

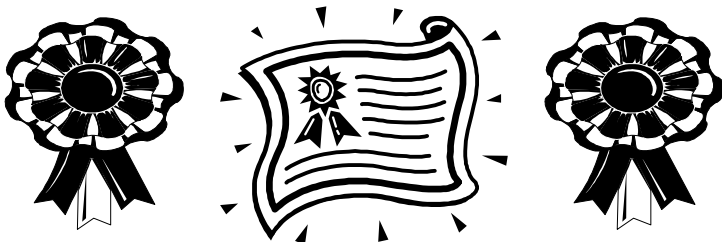
Tim Moy and Steve Brugge have founded a CESE SETI@Home group, called "The CESE Ducks," and everyone is invited to join in the fun. If one of us (or, more accurately, one of our computers) happens to be the lucky one to find a signal from E.T., we all (and the CESE) will share credit for the discovery. It's a slim chance, but the more the likelier. So far, we only have three members (though we've already crunched over 2000 data units), so we could certainly use more volunteers! Here's how to set yourself up running the SETI@Home project/screensaver under the CESE group, "The CESE Ducks."

If you're already running SETI@Home (henceforth S@H), then go to their homepage (<http://setiathome.ssl.berkeley.edu>), click on the "Groups" link (under the "Use S@H" heading, near the top on the left). Then, go to the bottom of that page and Search for the group "The CESE Ducks" (don't include the quotes, but remember to include the "The"). It will take you to our group page (where you'll see stats for me and our other members); now click on "Join" near the top.

If you are not already an experienced ET searcher, then the other information/links on their homepage will be useful. It's all pretty self-explanatory. The main thing you'll need to do is download the latest version of the screensaver/program by clicking on the "Download SETI@Home" link under the "Use S@H" heading on the left side. The program is available for both Mac and Win9x, WinNT, Win2000, and WinME; there are also versions for Unix and other operating systems. Then, after you're set up, follow the directions above for joining "The CESE Ducks." I'd also recommend checking out the other stuff on the homepage. It's truly fascinating.

If you have any difficulty, or just want more information, contact Timothy Moy at tdmoy@unm.edu.

Professor Moy is Vice President of CESE.



**The National Center for Science Education
Presents
Friend of Darwin Awards to Two! CESE Mem-
bers**

The National Center for Science Education (NCSE) has presented the Friend of Darwin Award to CESE members David Thomas and Marshall Berman. The awards are presented to people for “...support of evolution and science education and for service to NCSE.”

NCSE’s Molleen Matsumura (who, as rumor has it, nominated Dave and Marshall for the award) stated, “I’ve been asking myself why two such deserving people have come from such a small state as NM. I think that part of the answer is that CESE and NMSR [New Mexicans for Science and Reason] are such strong organizations.”

Both were presented their awards under surprise conditions. Dave thought that the sneaky planning between his wife Pam and Kim Johnson were for a surprise birthday party—that is, until the September NMSR meeting when the award was presented.

Flora Sanchez, President of the New Mexico Board of Education, suggested that a surprise presentation to Marshall in front of the State School Board would be appropriate. It would be nice for Marshall to have the recognition in front of his peers, and it would illustrate to the rest of the Board that there are some people who take notice of the good work that is done by Board members. So, the award was presented to Marshall just before the October Board meeting at a Baldrige quality training session. When CESE members walked in, Marshall said that he was quite puzzled and thought that we had somehow managed to take part in the training. One can imagine what a non-sequitur that must have been. He soon learned otherwise, and CESE would like to express appreciation to the State School Board for the warm reception that Marshall received when the award was presented.

Congratulations to two very deserving people!

Kim Johnson *Past President of CESE is a physicist at Quasar International*

Instructional Materials Commission (IMC)

The State Board of Education (SBE) recently approved this year’s work of the IMC at their October meeting without any of the difficulties of the past. These educational materials will be available for the purchase next spring and in the classrooms next fall. New commissioner appointments will be made early next year at the SBE meeting in January or March for a two year term.

The subjects that will be up for adoption next year are technical-vocational, adult education, computer literacy, driver education, and careers and employability skills. In the year 2002, the subject areas to be reviewed will be reading, English as a second language, modern and classical languages.

Each commissioner will be required to attend three meetings a year, from May till August, select a subject speciality, recruit a committee, and assign educational materials to be reviewed. The terms of office of the current CESE commissioners, Mark Boslough, Tim Moy, and Marilyn Savitt-Kring will expire in

January. Those CESE members who are interested in applying for a commissioner position, please contact David Martinez at:

David P. Martinez
Director Instructional Material Bureau
120 South Federal Place, Room 206 Santa Fe, NM 87501

dmartinez@sde.state.nm.us
505.827.1801 (voice)
505.827.1826 (fax)
<http://sde.state.nm.us>.

Please seriously consider applying so CESE will still have representation in this very important process.

CESE members who reviewed materials this past summer are Steve and Karen Brugge, Bill MacPherson, Walt Murfin, Nancy Shelton, Eva Thaddeus, and Bob Vardeman. Many thanks to all of you.

Marilyn Savitt-Kring

Mrs. Savitt-Kring is an active board member and the busy mother of twins.

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The Triumph of Evolution . . .

Chapter 1. **In the Beginning**, *Religion, Science and Politics*, Eldredge states “the role of religion is spiritual, moral, and social,” whereas Science “is to discover the workings of the universe—and to lead to technological advance.”

In subsequent chapters he discusses *Telling the Difference*, *The Fossil Record*, *What Drives Evolution?*, *Creationists Attack: I*, *Creationists Attack II*, and *Can We Afford a Culture War?* in which he takes on Phillip Johnson’s beliefs that *we* are engaged in morally bereft atheistic forces of naturalism against *his* ethical Christian-based theistic creationism.

Eldredge suggests that rather than “good old-time religion,” Johnson’s position is “good old-time politics.” The reader learns about Gould and Eldredge as graduate students at Columbia and how their projects—snails and trilobites—surprised them. Since then the colleagues have maintained a close dialogue and perverse pleasure in meticulously dissecting creationist ploys.

I recommend *The Triumph of Evolution and the Failure of Creationism* as the definitive catechism for anyone interested in the dialogue between those who believe in evidence and those who rely on faith.

—Ed.

The SEDL Fall Forum

Ms. Cindy Chapman and yours truly attended the 8th Annual Fall Forum sponsored by the Southwest Educational Development Lab in Austin Texas. We represented CESE, and a sort of broader New Mexico contingent, in brainstorming about Math and Science Education beyond 2000.

Three main themes of the sessions were:

1. Teachers understanding of content, and how that affects confidence in teaching that content
2. Integrating technology into science and math education
3. Strategies for recruiting and retaining quality teachers.

In particular, Ms. Chapman served on a prestigious, seven-member panel leading a fascinating discussion on topic 3 above before all 150 forum participants. (We should be VERY proud of her!) To me, this topic #3, along with discussions of models for meaningful professional development, drove the meeting agenda. MY perception or bias (from "field" experience with teachers, and with students) is that while topic 2 is essential, technology itself cannot really be a starting point for curricula, but can be integrated into all content areas. An important point of several discussions was that while it is valuable to gather educators, it would also be equally valuable in the future to include more policy makers.

It was also interesting to learn that more research now backs up contentions that professional development cannot be one-shot deals and mini-workshops. Professional development requires continuity over about 3 years for teachers to really experience deep, new learning of content. (We made this argument early in HOTSPOTS, and we can see this process playing itself out with ongoing teacher learning at Inez Elementary)

Steve Getty *Past CESE President*
Department of Geology
Colorado College

A Parent's View

While this article is written about El Paso, TX, I know it applies to the schools here as well. I have talked to the principal at the school my kids attend and they are trying to go charter so that they may concentrate even more on the math and reading programs. Bottom line, the Terra Nova scores drive the schools now, and to my knowledge they have very little in the way of science and social studies on them. It will be very hard to persuade the schools to include these subjects when they are not being graded on them.

It appears that if people want to have their kids get a well rounded education they must have the time and resources to provide that which the schools will not. The kids of the poor and single parents of this state have little chance of knowing more than math and reading. That's something to consider when outlining how we grade our schools.

The one thing that has baffled me is why when I was growing up we were taught history, geography, science, math, art, PE, and English. We even had time to be kids and play afterwards. Now they never have enough time to even teach math and reading. If one wants to make sure the kids get a full education, then when does the kid get time to play and be a kid? What has changed?

Diana Royce

Ms Royce is the mother of two neat kids and an enthusiastic CESE member..

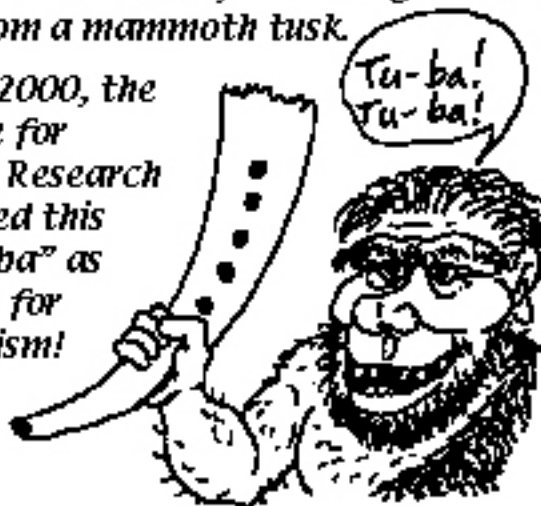
"We've arranged a civilization in which most crucial elements profoundly depend on science and technology. We have also arranged things so that almost no one understands science and technology. This is a prescription for disaster. We might get away with it for a while, but sooner or later, this combustible mixture of ignorance and power is going to blow up in our faces."

Carl Sagan

Strange Facts by DT

In April 1997, Discover Magazine printed an April Fool's joke about Neanderthal "musical instruments," including a tuba made from a mammoth tusk.

In Sept. 2000, the Institute for Creation Research (ICR) cited this "tusk tuba" as evidence for creationism!



see www.talkorigins.org/faqs/homs/aprilfool.htm

Coalition for Excellence in Science and Math
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Working on your behalf

Tim Moy is speaking at an open Mensa meeting, Tuesday, November 7, 6:30 p.m., at Shoney's (Menaul and Louisiana). Subject: "Making Sense: Scientific Literacy, Public Perception, and Good Decisions." Call Roger Holloway at 839-4584 for reservation(s).

Marshall Berman (just returned home from Washington, D.C.) addressed the Board of Directors for the Albuquerque Chamber of Commerce. He and Flora Sánchez had a joint article Grading Your Schools in the *Albuquerque Tribune*.

Kim Johnson's and Steve Brugge's OpEd, *Education in New Mexico; The Bad News and the Good News* was published in the *Albuquerque Journal*. Kim and Marshall are testifying before the Legislative Education Study Committee on November 13.

The CESE board held a cordial meeting with several members of Albuquerque Interfaith.

Dave Thomas performed his 13th annual HUGE magic/juggling show at the Peralta Elementary School Fall Carnival.

Cindy Chapman spoke about the Inez Hotspots Learning project on a panel at the Collaborative on Excellence in Teacher Preparation Conference (CESE member and UNM Professor Les McFadden was also on the panel). Ms Chapman has been asked to serve on the Council of Chief State School Officers' Planning Committee for developing a new framework for the mathematics portion of the 2004 National Assessment of Education Progress (NAEP). AND she is on the slate for Elementary Director for the Board of Directors for the National Council of Teachers of Mathematics. Ms Chapman teaches second grade at Albuquerque science magnet school, Inez Elementary.

A number of CESE members participated in a teachers' open house at the New Mexico Museum of Natural History.

Kim Johnson spoke at the Kiwanis Club.

Tim Moy spoke at the First Unitarian Church. (CD available.)

Marilyn Savitt-Kring served on the IMC Commission, had two letters published in the *Journal* and one in the *Tribune*. Walt Murfin, Tom Manaster, and Bill MacPherson also had letters to the editor published.

Steve Brugge spoke at the Westside Unitarian Universalist Church in Rio Rancho.