

**Math & Science Advisory Council**  
**Meeting Notes**  
**August 1, 2013**  
**10:00 – 3:00**

**In attendance**

Lesley Galyas, NM PED  
Malva Knoll  
Karen Kinsman  
Marcia Barton  
Patricia DiVasto  
Alexei Pevtsov  
John Bellum  
Hy D. Tran  
Nader Vadiee  
Karl Agar  
Zachary Leonard  
Richard Sonnenfeld  
Thansewi Martinez  
Phyllis Baca  
Terri Nikole Baca

**Welcome and Introductions**

**PED Initiatives and Math & Science Bureau Update**

(see Lesley’s slides for details; MSAC comments in italics)

- Math and Science Bureau
  - Hiring of new STEM coordinator
- PED Strategic Plan 2012—“Kids First, NM Wins”—in order to be relevant, must be tied to strategic levers
- Teacher Accountability
- STEM Teacher Initiatives
  - \$1.5 million was funded in last legislative session
  - Rfi to school districts to be issued soon
  - Stipends available for STEM teachers in hard to staff districts
- Upcoming PARCC assessments (math, ELA) will be completely computer based.
- Science is assessed at 4, 7 and 11<sup>th</sup> grades and based on current standards. 11<sup>th</sup> grade SBA is graduation requirement.
- Intel, NMPED and Innovate+Educate are collaborating on teacher PD on PBL and inquiry. Phase I online leadership training; Phase II on-line PBL and Inquiry courses.

*Discussion of Common Core and its relationship to science. The question that emerged was “how do we make science matter?” If science assessment results “counted,” science*

*would have a higher stature in schools, but is calling for more testing the best approach?*

*Karen Kinsman provided an overview of a new STEM website which will go live in October/November timeframe.*

#### NGSS Administrative Rule Change

Lesley has put in for the rule change to adopt NGSS. The 30-day public comment period will happen sometime this fall. Lesley estimated that it would cost \$500,000 in PD costs and \$1.5 million for capital outlay. Lesley has proposed a five year plan for implementation, starting in 2014-2015 school year with full implementation in 2018-2019.

*We need buy-in from teachers and a reasonable implementation period. NGSS are not curriculum, but instead are standards--student outcomes that can be measured.*

Algebra II waiver. Parents can request an opt-out for their children without cause. Students are supposed to take an equivalent or more rigorous course, but this rarely happens.

*Is Algebra II appropriate for all students? If not, what are the alternatives? How about the impact of an Algebra II End of Course exam?*

### **MSAC Rebuilding & Moving Forward—Action Planning & Discussion and Determining Priority Goals**

#### **Have To:**

Prepare Annual Report (due November 15)

Explore NGSS adoption

Research and Review HS math requirements (applied vs algebra, STARS)

Talk to industry about applied math

Leadership support for STEM

Making science “matter”

Investigate on-line/dual credit digital learning

Investigate public outreach

Elect chair (or co-chairs, or chair and vice-chair) (Lesley will facilitate through Google Groups)

Publish notes (Selena to type up and distribute for edits)

Set norms for MSAC.

#### **Want To:**

Explore competency-based assessment.

“Disruptive Innovation”

Leadership Engagement

#### **Lesley will:**

- Forward the final report of the STEM Summit.

- Invite one of the STEM Summit Co-chairs to present at the next meeting.
- Set up Google Groups.
- Send a copy of the PowerPoint slides.

The next meeting will be September 6, 1 to 5 pm, at New Mexico Tech in Socorro.  
Richard Sonnenfeld will secure a space for the meeting.

## **Other Issues that Were Discussed**

*College and career readiness. Who has responsibility for college and career advisement?*

*Effective Leadership is Key. We can legislate all we want, but change really happens at the district and school leadership level.*

*Industry wants applied math, communication, and teamwork skills.*

*Private and public partnerships.*

*What about vocational tech?*

*What is STEM? Not just PhD scientists.*

*How do we get students interested in science?*

*Coalition of School Administrators might be a good ally.*

*Perkins Grants to NM Higher Ed Institutions for non-traditional awareness, girls in STEM, boys in nursing.*

*Barriers for people to enter the teaching profession from science careers.*

*Lack of content competency of teachers who are graduating from colleges of education.*

*Gifted and Talented students are not adequately supported.*

*Pushing that status quo and asking the right questions!*

*Our congressional delegation is sympathetic to STEM.*

*STEM competency is important for global competitiveness.*

*Educating scientists or educating a scientifically literate population?*

Submitted by Selena Connealy. August 21, 2013