

**Math & Science Advisory Council (MSAC)**  
**2/23/2018**  
**Location: Sevilleta National Wildlife Refuge (NWR)**

\*Ms. Christy Krenek (CK)  
Ms. Felicita Bayangos (FB)

\*Ms. Wanda Bulger-Tamez (WBT)

\*Mr. Nathaniel Evans (NE)

\*Mr. Joe Hastings (JH)

Ms. Suzanne Johnson (SJ)

\*Mr. Scott Robbins (SR)

\*Ms. Kim Scheerer (KS)

Ms. Gwen Warniment

\*Ms. Bernadine Cotton (BC)

\*Ms. Anna Suggs (AS)

\* = in attendance

Call to Order at 10:05 am: attendance with introductions, please share an exciting STEM item in your world.

Joe Hastings (JH): Any issues for accessing the MSAC google file? No problems relayed; members that leave the position do get removed from the MSAC listserv.

Nathaniel Evans (NE): makes a motion to approve the agenda, SR 2nds the motion

- Small discussion for amendment to 3 pm adjournment due to travel needs of MSAC. All in favor, no oppose.
- Slight changes to minutes discussed (update acronyms, clean up font & size, etc.), Nathaniel makes a motion to approve with changes, SR seconds the minutes, NE abstains as he wasn't there, all approve.

Joe Hastings (JH) reads through the current agenda.

Facilitator = JH; Recorder = KS; Timekeeper = NE (lunch at noon).

Welcome and farewell with style – letter and certificate from NM PED as a nice idea, draft from Joe and Gwen Warniment (GW). GW will also takeover for Suzanne as co-chair through the term - thank you Gwen.

JH passes around a MSAC Governance document and MSAC member list that shows term lengths. We are at quorum.

Moving through into 2018-2019, Kim Scheerer (KS) will work with Gwen, if elected and approved for co-chair status. KS makes a motion to replace Suzanne with Gwen for the remainder of the term. Christy Krenek seconds the motion. All in favor, no opposed.

NE makes a motion to elect KS and GW to co-chair for 2018-2019. SR seconds the motion. Two year term June 2020; it is noted that Kim and Gwen are on through the board through June 2019. NE amends motion to a one year term, SR seconds the motion. All in favor, no oppose.

NE brings up discussion to elect a secretary for recording the meetings. Scott Robbins has a nomination for secretary. NE makes a motion to elect SR to a two year term for secretary. Wanda Bulger-Tamez (WBT) seconds the motion. All in favor, no oppose.

The group reviews the MSAC member list and term lengths. Twelve members total on MSAC; four from public schools (2 teachers, 1 admin), three from post-secondary, four from the private sector and one from the partnership for Math and Science education. Each member is listed in their appropriate category and there is discussion for future members. Marcia Barton (MB) will work to get the application materials online (one week expected timeline).

### **PED Math and Science Bureau (MSB) update**

Pat Carden (PC), MSB

- Save the Date: NM STEM Symposium on June 1, 2018
  - Proposals are now open online, closes Feb. 28<sup>th</sup> (willing to extend deadline)
  - MSB website is updated (kudos to Shafiq)
  - Mileage for teachers 60 miles plus outside of Albuquerque, one night lodging the Thursday before
- Webinar for NM STEM Ready Science on 2/28 from 3:30-4:30 pm
  - Goal is to have two webinars per month, one for teachers, one for administrators.
  - KS: noted to be aware of rural geographic issue and technology webinars
  - NE: keep in mind the timing adjustment issues with implementation of NM STEM Ready Science
  - WBT: think about 20 minute webinars versus one-hour program
- Handout – Implementation timeline and Readiness inventories review.
  - 384 teachers and 83 administrators responded
  - There was representation from all over the state.
  - Two working groups organized, starting work next week (Thursday).
    - Course Map Working Group = 14 Middle School, 13 High School
    - NM Six Framework Working Group = 10 members, diverse voices
- PARCC math courses webinars in January/February: sub claim C & D focus
- Math pilot programming, *Teach to One* (3 pilot schools, example: Taos MS).
  - Pros: exit question at the end of the day makes it individualized
  - 3-4 ways of direct instruction includes student to student interaction time.
- Pathways to Math Excellence (PME), working with coaches, partnership with LANL and NMSU.

### **Marcia Barton (MB), MSB**

- *Making Sense of Science* continuation and partnerships with WestEd
- Short Courses are offered this summer, 2 days versus traditional 5 days.
- Topics: Systems, Waves and others that are being developed by WestEd
- goal = 600 teachers in a two-week period
  - June 11<sup>th</sup> and June 18<sup>th</sup>
  - two weeks in Albuquerque (nex+Gen Academy), one week each in Las Cruces and Farmington
  - Matter and Dynamic Earth for the long courses

- Exploring a partnership with West Ed (innovations in education grant)

Lunch break and then continuation into PED NM STEM Ready! updates.

Review of fall 2017-2018 NGSS process = NGSS plus the NM six. Looking at the implementation timeline, the new standards take effect in 2018-2019, they are taught in all grades in 2019-2020. Questions from NE about assessment, MB responds with information, to include formative assessments and the use of exemplar units. We in an adoption year for Science materials, information from Yanira is coming via email about PED rubrics and recommendations.

*Materials timeline:* June (review), October (recommendations), January 2019 (price list), Legislative session 2019 (legislature allocates monies), Spring 2019 (districts purchase materials) and Fall 2019 (new materials in classrooms). Money can carry over into the next year and the districts can choose how their materials money is allocated.

“Open education resources” (OER) – found online, difficult for publishers to completely align to NGSS, easier to cycle in changes and updates (example state: Utah). Questions from SR about consistency and quality, EQUIP rubric is an example. The difference between a lesson and a unit is noted for curriculum development. ‘Coherence’ is relevant for standards integration – it can be challenging for developers.

*Assessment:* many states have moved to 5<sup>th</sup>, 8<sup>th</sup> and 11<sup>th</sup> testing patterns. Next year New Mexico will still be 4<sup>th</sup>, 7<sup>th</sup> and 11<sup>th</sup> with the SBA. Additional comments about testing, PARCC and associated educational content ensue. Districts are to take the lead in helping with trainings, implementation and communication. The MSAC can help with sharing feedback from the community and to work to organize a meeting with the Secretary as an ally advisement board.

90 day plan, ESSA integration was encouraged from MSAC. Possible partnerships with groups like NMSTA, etc. will help with NGSS and the NM six roll-out. Gradual implementation plan is recommended with a K through 12 focus while incorporating math and ELA context.

*Walk and Talk:* members work with a partner to wander and communicate about MSAC core element and our 5-year role. Discussion recommendations for adoption and implementation, members split up into the following partner groups: AS & NE, CK & JH, WBT & KS, SR & BC.

1. Teach Science K-12.
2. Quality professional development BEFORE implementation.
3. All administrators 90 day plans for ESSA to include a section that addresses the NM STEM Ready implementation at their school.
4. Looking at math and NGSS overlap to help boost math NM student scores.
5. Making sure administrators know what good NGSS practices looks like in the classroom; provide some best practice pathways (guides).
6. Propagate models or best practices through successful sharing; knowing what to avoid.
7. Work to sustain innovation in practice versus backsliding; administrative involvement.
8. Connect with Higher Education programs, example: NM Tech Masters of Science Teaching to help with content knowledge gaps.

9. Knowing that 3 years is not enough, longer implementation plan with reflection period.
10. Increase and maintain communication and transparency of PED.
11. Maintain legislative presences and funding for resources.
12. Increase morale in teaching STEM (“a year to play/practice/experiment”) which can lead to an increased economic presence for students and schools.

*MSAC Report* - currently published online at: <http://webnew.ped.state.nm.us/wp-content/uploads/2017/12/Math-and-Science-Annual-Report-2017.pdf>

*What would we like to do with the report?* Use it to encourage the **action recommendations** from pg. 7. Discussion revolves around an elementary math specialist endorsement. NM needs to update the math competencies (to 2015) to revive the elementary endorsement to clear expectations and guidelines that can be enacted in the state. Additional conversation from the group surrounds creating a letter from MSAC to a particular stakeholder group. NE mentioned the state school board and Secretary as letter recipients, people agree. SR will create a draft, NE and AS will help craft and edit in google docs. JH will work on the letter to the Secretary to present with the report and move forward with school board group. We will need to get on his calendar in the next 2-3 months, JH will initiate that for one week out of next meeting.

*Setting the strategic priorities for 2018-2019.*

- Putting communication with the Secretary on our April 10<sup>th</sup> 2018 agenda
- Working on the annual report, starting in August 2018
- Homework: folks are to review the *Ideas from previous meetings* and *17-18 MSAC Action Plan/Timeline* for review in April
- Final activity: sunshine and blues

CK – motion to adjourn at 3:00 pm, SR seconds the motion. All in favor, no opposition.

*Next meeting:* **Tuesday, April 10<sup>th</sup> 2018**, BF Young Yucca Room in Santa Fe (1300 Camino, Sierra Vista)