

Minutes are approved 5/5/2023

Math and Science Advisory Council Meeting
February 3, 2023; 9am-4pm; In-Person & Virtual
Explora Museum (1701 Mountain Road NW, Albuquerque, 87109)

Agenda

1 Call to Order @9:09: Oemig calls to order. Roll call:

Angela Alderete
Ling Faith-Heuertz
Kim Ayres
Tammy Gaudet
Marcia Barton
Monica Martinez-Archuleta
Dave Dooling
Paulo Oemig
Deborah Elder
~~Khanh Pham~~ (resigned)
Nathaniel Evans
~~Leandro Venturina~~

Ex-officio (MSB)
Shafiq Chaudhary (notes that bureau is expanding; finishing a year of transition and looking forward to a year of new opportunities)
Vanessa Barela
Lisa Sanchez
Terese Baca-Radler

Public

Jennifer Nilvo, School of Dreams Academy (STEM research teacher). jnilvo@sodacharter.com; 505-203-6559.

2 Approval of agenda

MSAC reviews online in Goggle docs. Evans moves to accept. Alderete seconds. Approved, 9:18.

3 Introduce current and new members

Introductions around table, 9:18-9:33.

Oemig discusses buddy system to help new members acclimate to MSAC (navigating MSAC folder; etc.). Oemig and Choudhary encourage new members to ask buddies for help.

4 Approval of minutes from October 5, 2022 meeting

9:37: Discuss status of full members and alternates. TBD motion. Ling moves to accept; Angela seconds. Approved @9:41. Re minutes; Barton asks for correction to notes on part-time coordinator to develop elementary science specialist; types changes on-line. Tammy moves to accept; Ling seconds. Approved @9:45.

5 Elect Co-Chair to start immediately

Carrying over motion from December to elect Barton as co-chair. Tammy moves; Ling seconds. Approved 9:46.

6 Public Comment

9:47: Jennifer re-introduces self; elementary and secondary teacher; biochemistry background; DOD STEM Ambassador. DOD looking at how to get more programs into classrooms to fill future STEM jobs. Nominated by Society for Science (old Science Talent Search), which sponsors multiple competitions and published Science News for Students, supporting STEM literacy; teacher conferences; STEM advocates; her students do independent research in classrooms (13-year-old published peer-reviewed paper); charter school; Tiger Woods STEM camps; Pocket Lab; STEM Ecosystems; create and curate lesson plans. Why should kids wait to go to college to do research?

Judy Rinehartz, Math Amigos (<https://mathamigos.org/>), Santa Fe Alliance for Science (<https://www.sfafs.org/>), former teacher educator. Puts on workshops for teachers; coaching; literacy to mine math out of books.

7 MSB Education Session

10:05: MSB update from Shafiq. 2023 meeting documents are in MSAC shared drive folder. Pause to review updates. Law requires that curricula be reviewed every 7 years; now turn for K-12 computer science. Summer '24 will be K-12 science (starting Fall '23). Expect Open Sci Ed to submit materials. 2017 review was under old rules. First gateway now is research-based evidence of effectiveness (supplemental list if it does not pass). Also including language and cultural aspects in response to Martinez-Yazzi court ruling. Local districts decide how to adopt. 2025 legislative session will determine allocations for science. MSB is tracking HB 214, which has an allocation for elementary math specialist. Elementary math and science specialist licensing on hold until after legislative session; completing other competencies first; once rule change occurs, work on elementary science specialist endorsement. APL program for teachers to move up levels will not include async Canvas courses; courses being developed now. Evans asks about social/emotional justice components. Feedback is the APL is more affordable and useable. Looking for secondary math teachers, coaches, admin, counselors, etc. as part of working group to re-envision math pathways. Progression of conversations started in '21. Want MSAC members to participate in pathways and other working groups. Council has voice

concerns about high-quality science instruction at elementary level; MSB working to support that. Monica raises issue of STEM teachers needing familiarization when moving into new subject areas.

Two updates: Legislative update, also tracking SB 9, which covers state organizations and outdoor equity funds. Creates a permanent fund that will let state apply for Federal grants. 25% goes to outdoor equity fund groups. Grants are \$100,000 to \$1 million and up to 18 months. Covers bus transportation to enhance outdoor student access and to take accessibility beyond mobility. SB 289 would instruct PED to develop K-12 scope and sequence for integrating outdoor education. Concerned that it would overstep local controls and has no appropriation.

Two months ago heard from two instructors tasked with CS strategic plan found that a statewide definition of CS is needed; approved. Can move forward on updating STARS and approving more CS courses.

Questions from Barton: Exams? ASR test coming up. PED supporting HB 216. Steinhaus resigned, effective 1/27. Interim secretary Pedilla, governor's education advisor.

Discussion of math graduation requirements and whether Algebra II should be included.

EOC exams up to local schools, which also have to pay.

8 Motion: Schedule remaining MSAC meetings

10:51: Angela moves to schedule meetings ahead of time. Monica seconds. Approved. Oemig proposes 5/5 will be virtual; 8/25 in person, location TBD; 10/20, virtual. Dates selected in poll are 5/5, 8/25, 10/20. Ling moves to accept. Dooling seconds. Accepted. Quorum needed is 3 members. Application for membership will be electronic. Defer discussion of virtual vs. hybrid meetings to e-mails.

11:02-11:15: Break.

9 Discuss advocacy of report priorities for current Legislative Session and review postcards

Need to review postcards for outdoor learning and recommendations/what is MSAC.

Outdoor: Card sent to legislators last year. Key change is that MSAC asks that educator positions be permanent. SC: Yes, positions are permanent; HB 214 has item for outdoor classrooms; cut from \$1.24 million to \$250,000. Needs to increase to be effective. Staff positions are moved into agency budget. Barton moves to modify postcard to advocate \$1 million per year minimum in outdoor funding. How to ensure that funding does not just go to "usual suspects." 300+ outdoor learning organizations. Need to encourage them to partner with schools. SC: Different ways to use increased funding include outdoor training for teachers, using funding through history, social studies, etc. Barton suggests having a working group

work on those issues. Could vote on wording change now or table until working group discusses. Tabled until after working group.

11:48-12:26: Lunch.

Review What is MSAC postcard. Keep members at 12. STEM terms defined on back. Barton notes that recommendations do not align exactly with PED, but says that is not necessary. Oemig notes points where postcard disagrees with HB 126. Should we make recommendation more explicit? SC reviewed current math requirements and alternatives; Evans concerned with lowering standards and should put resources into finding more HS math teachers. CTE courses need to be defined better. Algebra I is a gatekeeper for everything else. Is Algebra II going away because no one can pass it anymore? Should GED become more demanding? SC: Push for better standards needs to come from bottom up.

Restating: Current law lets parents have kids opt out with alternative classes. New language would remove that. Culmination of working groups that started in '21. Is current sequencing equitable, or should it be redesigned? Something for current stakeholders to assess. Evans: Change wording from "shall" to "must" have Algebra II. Oemig will detail ad hoc committees review wording and recommend changes.

Pivot to Science component of postcard. No changes suggested.

10 Outdoor Learning ad-hoc committee updates

1:22: Faith: Committee (Parsons, Faith, Dooling) generated timeline to give ad hoc committee a starting point. Parsons took notes. Suggested plan pushed back to first full meeting in '23. Barton asks how it integrates with the MSB workload. Terese says that feedback from stakeholders will be essential for moving forward.

PED, Governor, FBI working on cohesive guidelines for background checks on volunteers.

11 Motion: Create additional ad-hoc committees (Math, Science, Computer Science)

1:30: Outdoor learning remains the same. Change term to Working Groups. Oemig moves to form working groups. Barton seconds. SC: Last MSAC working group was in 2020 when PED wanted a math working group, which dissolved after writing guidelines. Purpose of working groups should be advance work to support decisions by Council. Barton notes that a key task is annual report and recommendations to Legislature, and that we cannot testify as MSAC member, only on behalf of employer. 1:43: Approved. MSAC now has four working groups:
Science: Oemig, Angela, Dooling (MSB: TBD)
Math: Tammy, Evans, Monica (MSB: TBD)
CS: Ling, Kim (MSB: TBD)
Outdoor: Barton, Monica (MSB: Vanessa and Terese)
Ask Deborah and Leandro to volunteer

Adjourn to working groups, then vote on post cards when we return. SC Suggests that MSAC develop concerns and issues they want addressed in next report.

Working groups 2:10-3.

Science: Work on fine-tuning MSB needs so that CTE meets standards. Meet in March.

Math: No change to postcard wording. Want to see next steps in pathway; address innumeracy training.

CS: OK with wording; no change since CS definition has not been published; want to retain language that CS can be done without computers. Meet in March and April. Want voice in graduation requirements.

Outdoor: Replace bullet about permanent staff to recommendation for increase by \$5 million funding; equitable access; and address Martinez/Yazzie discussion draft. Wording of postcard on outdoor standards massaged by MSAC. 3:51: Oemig moves to accept edits. Tammy seconds. Approved.

12 Discuss updating of Strategic Plan

3:20: Oemig moves that MSAC postpone Item 12 to May 5 meeting. Tammy seconds.

Approved. Dooling moves to accept first card. Oemig seconds. Approved. Barton moves to print 125 each. Oemig seconds. Approved.

13 Next meeting details

May 5; virtual.

14 Members share updates

STEM MESA is 2/16.

15 Sunshine and Blues, reflection on meeting

Good to meet in person again.

3:58: Oemig moves to adjourn. Angela seconds. Adjourned at 3:58 p.m.