

## [EXT] NM Computer Science Standards

Allison Brody <abrody@explora.us>

Sat 11/10/2018 1:33 PM

To:FeedBack, Rule, PED <Rule.FeedBack@state.nm.us>;

Christopher N. Ruskowski, Secretary of Education

New Mexico Public Education Department

Policy Division

300 Don Gaspar, Room 101

Santa Fe, NM 87501

Dear Mr. Ruskowski,

Thank you for your leadership in adopting standards for our Kindergarten through 12<sup>th</sup> Grade. I am writing to both voice support for these standards and to encourage the New Mexico Public Education Department to adopt them as written.

Written by industry and educational experts, these proposed standards are well-informed and well-aligned with New Mexico's needs. They will help inform New Mexico educators as they create curriculum and identify instructional materials for computer science education, and to align courses to meet common goals and standards.

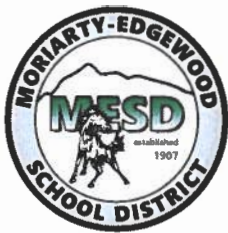
I appreciate your support of computer science education.

Sincerely,

Allison

---

Allison Brody  
Director of Education  
Explora  
505-224-8372  
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# Moriarty-Edgewood School District

Teresa Salazar, Superintendent

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Policy Division

New Mexico Public Education Department

300 Don Gaspar Avenue, Room 101

Santa Fe, New Mexico 87501

November 20, 2018

To Whom It May Concern:



I recently learned of the New Mexico Public Education Department's plans to propose a new rule regarding the adoption of K-12 Computer Science Standards with a potential effective date of July 1, 2019. Upon hearing this news, I was very excited about the positive implications the adoption of Computer Science Standards will mean for the future of New Mexico students. It is widely known that education departments in the United States have been slow to move on such policy at a time when the number of technology-related jobs in our country continues to grow, and hundreds of thousands of positions remain unfilled because we lack the skilled workforce to staff them. We live in an age when skills in computer science are absolutely essential for career readiness, so a change in policy resulting in the adoption of computer science standards is critical to meet the needs of our students. As a parent and as an educator, I am very pleased to see our state taking action to address this issue as a matter of policy to ensure that our students are adequately equipped with 21st century computer science skills.

I am familiar with the proposed CSTA K-12 Computer Science Standards revised in 2017 by the Computer Science Teachers Association, and believe that they strongly represent the critical skills that our students will need to be successful in the global, digital landscape. However, as I began to envision what the implementation of these new standards might look like in my own school district, I began to have some questions and concerns regarding the language of the proposed new rule. I would like to take this opportunity during the public comment period to bring some of these concerns to your attention. Please understand that I am, indeed, presenting these concerns as a *proponent* of the proposed new rule. Again, I highly value this policy in the general sense, and it is for this reason I feel that it is important to ensure that implementation of the policy is successful at the school level. I fear that failure to address some of the concerns I share with you could, in fact, undermine a successful implementation of the policy.

My first question and concern lies in the language of the objective:

**6.26.17.6 OBJECTIVE:** The department-approved New Mexico computer science standards represent the required knowledge and skills in this field. These standards are mandatory for any courses in kindergarten through grade 12 in which computer science content is being taught.

The rule states that "these standards are mandatory for any courses in kindergarten through grade 12 in which *computer science content* is being taught." **What is the definition of computer science content?** Since this rule will be *mandatory* for any course, kindergarten through grade 12, "in which

computer science is being taught,” it is important to further consider and define the scope of this expectation. Will the rule apply only to courses specifically designed and designated as “Computer Science” courses, or will it apply to *any* course that addresses any content related to computer science?

Please allow me to provide some context for this question and concern. We have three elementary schools in my district who offer a “Technology Lab” slot in the weekly rotation of special pull-out classes. This means that K-5 students in our district are scheduled to visit the technology labs once a week for less than an hour (typically 35 - 45 minutes depending on the school) per session. Because of in-service days, parent-teacher conferences, field trips, assemblies, and schedule adjustments due to inclement weather, there are some weeks throughout the year that classes miss their scheduled time in the technology labs, so they may only actually meet between 30 and 35 times throughout the school year. As you can see, this is not a very significant amount of instructional time exclusively devoted to technology-related instruction at all. Because the time is so limited, we have had to be very intentional about selecting appropriate standards and activities in which it would be feasible for students to develop some level of proficiency. As a result, the current instructional goals of our elementary Technology Lab pullouts are to address grade-level proficiencies in the following areas:

- **Digital Citizenship** - While digital citizenship topics are also integrated into core curriculum by classroom teachers, many of these topics are addressed explicitly in the technology labs and are part of our district’s strategic plans to comply with the Children’s Internet Protection Act (CIPA) requirements.
- **Support 21st Century Career and Readiness Skills Embedded in the Common Core Standards** - Rigorous expectations for proficiencies with technology-based skills are both explicit and implied throughout the state’s adopted Common Core Standards. In effort to support the seamless integration of these Common Core technology requirements in the regular classroom, time is devoted in the elementary technology labs each week to develop the technical skills required to develop student proficiency. For example,
  - Beginning in Kindergarten, the ELA Common Core Standards require students to use a variety of digital tools to produce and publish their writing. For this reason, some time in the elementary technology labs is devoted to introducing students to a variety of software including word processing, presentation, spreadsheets, audio and video editing, and other multimedia creation applications. Receiving important technical instruction on the use of these applications empowers students to use the tools more effectively and demonstrate proficiency in the related Common Core Standards.
  - Common Core also requires specific levels of proficiency with keyboarding (e.g. fifth grade students should “demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting” CCSS.ELA.W.5.6) It takes time to support elementary students in the development of proper keyboarding skills, especially when working to correct the bad habits formed by many students outside of school. For this reason, about 10 to 15 minutes of the instructional time in the lab each week is dedicated specifically to keyboarding practice. (This alone accounts for approximately 33% of the total instructional time in the lab.)

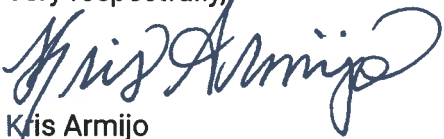
According to the language of the proposed new rule, it is difficult to determine if the special "Technology Lab" pullouts in our elementary schools would fall into the category of "any course...in which computer science is being taught." As you can see, our elementary schools are already trying to pack a great deal of technology-related instruction into a very limited amount of instructional time. It is true that much of the content being covered *does* address some of the proposed new CSTA K-12 Computer Science Standards, however, it simply would not be possible to address *all* of the elementary level (Level 1A and Level 1B) standards during the very limited instructional time in the technology labs.

Instruction in our elementary technology labs has already been significantly and negatively impacted by budget cuts which have forced us to staff our labs with educational assistants rather than certified teachers. If this new rule will, in fact, apply to our Technology Lab pullouts, I am afraid that it could potentially discourage my district from continuing to offer this option because of the impossibility of addressing all of the proposed standards. This unintended consequence would seriously be a step in the wrong direction.

I also wonder about the implications of the new rule in some of our course offerings at the secondary level. Of course, one would expect that the proposed CSTA K-12 Computer Science Standards would apply to general Computer Science and potentially Computer Applications courses at the middle school and high school levels, however, would they also apply to more specialized course offerings within the context of computer science? For example, our district offers courses in the Project Lead the Way (PLTW) program at both middle school and high school levels. These courses do cover computer science content, but each module has a very specific focus within that content. Would those specialized course offerings still be held accountable to address all the new computer science standards? Assuming there will be end of course exams (EOC's) to assess student proficiency of the new standards, will *all* courses offered within the grade level bands be assessed with the same EOC regardless of the course, even those with specialized content?

I would like to reiterate that I am a strong proponent and advocate for computer science education, and I do support the adoption of K-12 Computer Science standards in our state. However, I believe that the implications of some of the broad language in the new rule may cause confusion and unintentionally result in steps in the wrong direction. The success of the adoption of new standards will rest largely on the ability of school districts across the state to successfully implement them. Please carefully consider how realistic implementation of these standards will look and the impact they will have on both educators and students in our state as you settle on the final language describing the expectations of this rule.

Very respectfully,



Kris Armijo

Education Technology Specialist  
Moriarty-Edgewood School District

Kris Armijo  
Moriarty-Edgewood School District  
PO Box 2000  
Moriarty, NM 87035



Policy Division  
New Mexico Public Education Department  
300 Don Gaspar Avenue, Room 101  
Santa Fe, New Mexico 87501

87501-276699



## [EXT] 6.29.17 NMAC, New Mexico Computer Science Standards

Jaap Gardner <jaap@lanlfoundation.org>

Tue 11/27/2018 9:15 AM

To:FeedBack, Rule, PED <Rule.FeedBack@state.nm.us>;

Cc:Gwen Warniment <Gwen@lanlfoundation.org>;

 1 attachment

NM Computer Science Standards.pdf;

Please refer to the attached letter from:

**Gwendolyn Perea Warniment, Ph.D.**  
*LANL Foundation's K-12 Program Director*

Warm Regards,  
Jaap

*Mrs. Jaap Gardner*  
*Assistant to K-12 Program Director: Gwen Perea Warniment Ph.D*  
*Tel: 505.753.8890 ext. 147*  
*1112 Plaza Del Norte*  
*Espanola, NM 87532*  
[www.lanlfoundation.org](http://www.lanlfoundation.org)

November 26<sup>th</sup>, 2018

Secretary Ruszkowski  
New Mexico Public Education Department  
300 Don Gaspar Avenue  
Santa Fe, NM 87501

Secretary Ruszkowski:

The Los Alamos National Laboratory (LANL) Foundation writes in strong support of the proposed new rule 6.29.17 NMAC, *New Mexico Computer Science Standards*. As an organization, we feel that this rule recognizes computer science as an existing, vibrant part of New Mexico's educational landscape and workforce. However, importantly, it also recognizes that the status of computer science education in New Mexico can be improved with the adoption of these standards.

The Computer Science Teachers Association's (CSTA) K-12 Computer Science Standards, on which the New Mexico Computer Science Standards are based, are multi-dimensional and include measurable student performance expectations. With comprehensive standards written across the K-12 grade band, New Mexico's schools will be able to clearly communicate to workforce and post-secondary partners the level of rigor and specific skill sets provided in our computer science classrooms. We strongly encourage the New Mexico Public Education Department to adopt the proposed New Mexico Computer Science Standards in their entirety and commend the Public Education Department for your forward thinking.

Our Best,



Jenny Parks,  
CEO  
LANL Foundation



Gwendolyn Perea Warniment,  
K-12 Program Director  
LANL Foundation

## [EXT] feedback for rule 6.29.17 NMAC, New Mexico Computer Science Standards

Paige Prescott <paige@computersciencealliance.org>

Thu 11/29/2018 11:12 PM

To:FeedBack, Rule, PED <Rule.FeedBack@state.nm.us>;

Cc:Paige Prescott <paigeaprescott@gmail.com>;

 1 attachment

CS\_stds\_rule-CSTANM\_public\_comment.pdf;

Please see my attached comments regarding the rule 6.29.17, NM Computer Science Standards.

If you have any questions, please let me know.

Paige

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*Paige Prescott*

*Computer Science Alliance, Executive Director*

[CSTA-NM](#) President

[UNM OILS](#) PhD student

Paige Prescott  
137 E. Santa Fe Ave.  
Santa Fe, NM 87505



November 29, 2018

Jamie Gonzales  
Policy Division  
New Mexico Public Education Department  
Policy Division  
300 Don Gaspar  
Santa Fe, NM 87501

Re: Rule 6.29.17 NMAC, New Mexico Computer Science Standards

Dear Ms. Gonzales,

As President of the Computer Science Teachers Association of New Mexico (CSTA-NM) I am writing to provide comments on the Rule 6.29.17 NMAC, New Mexico Computer Science Standards. CSTA-NM supports teachers to bring computer science education to all students in New Mexico and is interested in policies that support teachers and schools to expand computer science education in our state.

I commend the New Mexico Public Education Department for taking the initiative to adopt standards for computer science for our Kindergarten through 12th grade classes. I am writing to voice support for these standards and to adopt them as is, no changes necessary. These proposed standards are well-informed and written by industry and educational experts in computer science and have been used by other states in creating computer science standards..

These quality standards will help inform our New Mexico educators when creating curriculum and identifying instructional materials for computer science education. It will help us to align our courses to meet common goals and standards for computer science courses. Many teachers were already using these standards to inform their practice but now that our NM PED is adopting them, they will have greater confidence in their lesson plans.

I appreciate your support of computer science education and look forward to seeing computer science education grow in our schools.

Sincerely,

Paige Prescott  
President, CSTA-NM  
Executive Director, Computer Science Alliance  
[paige@computersciencealliance.org](mailto:paige@computersciencealliance.org)

## [EXT] Proposed new rule 6.29.17 NMAC

Kym Ramsey <kramsey@lmsed.org>

Sat 12/1/2018 1:52 PM

To:FeedBack, Rule, PED <Rule.FeedBack@state.nm.us>;

Good afternoon,

I am a teacher in NM & I would like to express my support for the new proposed rule, 6.29.17 NMAC. These standards are rigorous, but attainable & are greatly needed for our state to be able to compete with the rest of the country. Our students deserve the chance to be on equal footing with other students throughout the country and these standards are the first step to accomplishing that goal.

Thank you for your time,

--

Kym Ramsey  
Central Elementary  
Dugan-Tarango Middle School  
[kramsey@lmsed.org](mailto:kramsey@lmsed.org)  
(575) 542-9222  
(575) 542-9806

## [EXT] CS Standards

Celia Einhorn <celia.einhorn@gmail.com>

Tue 12/4/2018 7:32 PM

To:FeedBack, Rule, PED <Rule.FeedBack@state.nm.us>;

Good day,

Allow me to introduce myself; my name is Celia Einhorn and I am a program manager for the Supercomputing Challenge.

I am in full support of **6.29.17 NMAC, New Mexico Computer Science Standards.**

**I remember Alan Kay, from Apple, once said that technology is something invented after you were born. Every student in K through 12 right now does not consider computers as technology. They are a way of life and computer science belongs in every grade level.**

**Thanks for allowing my input and best of luck with the process.**

**Supercomputingly,  
Celia**

## [EXT] Support for CSTA standards

Raena Cota <raenac@nmsu.edu>

Wed 12/5/2018 9:07 PM

To:FeedBack, Rule, PED <Rule.FeedBack@state.nm.us>;

 1 attachment

CS support letter.docx;

Raena Cota  
332 N Armijo  
Las Cruces, NM 88005

December 5, 2018

Christopher N. Ruskowski, Secretary of Education  
New Mexico Public Education Department  
Policy Division  
300 Don Gaspar, Room 101  
Santa Fe, NM 87501

Dear Mr. Ruskowski,

I commend you and the New Mexico Public Education Department for taking the initiative to adopt standards for computer science for our Kindergarten through 12th grade classes. I am writing to voice support for these standards and to adopt them as is. These proposed standards are well-informed and written by industry and educational experts in computer science.

These quality standards will help inform New Mexico educators when creating curriculum and identifying instructional materials for computer science education. It will help us to align our courses to meet common goals and standards for computer science courses. Many teachers were already using these standards to inform their practice but now that our NM PED is adopting them, they will have greater confidence in their lesson plans.

I appreciate your support of computer science education.

Sincerely,  
Raena Cota  
Program Manager

## [EXT] NM Computer Science Standards

Delara Sharma <delarasharma@gmail.com>

Wed 12/5/2018 9:44 PM

To:FeedBack, Rule, PED <Rule.FeedBack@state.nm.us>;

Secretary Ruszkowski  
NM Public Education Department  
300 Don Gaspar Avenue  
Santa Fe NM 87501

Re: Rule 6.29.17 NMAC, New Mexico Computer Science Standards

As a teacher in the New Mexico Public Education System, and a parent of two students in our Public Schools, I strongly advocate for the adoption of the K-12 Computer Science Standards for New Mexico.

As an educator, I believe we need these standards to guide Computer Science curriculum and instruction in our classrooms. Our students deserve nothing but the best, and we need these standards to prepare them to compete for the numerous opportunities and career pathways Computer Science has to offer.

Sincerely,  
Delara Sharma  
NBCT, PAEMST

## [EXT] NMPMSE Comment on 6.29.17 NMAC

Selena Connealy <connealy@epscor.unm.edu>

Thu 12/6/2018 1:34 PM

To:FeedBack, Rule, PED <Rule.FeedBack@state.nm.us>;

Cc:Kersti Verna Tyson <kersti@unm.edu>; Leonard, Zachary A <zleonard@lanl.gov>;

 1 attachment

NMPMSE Comment on 6.29.17 NMAC.pdf;

I am submitting the attached letter on behalf of the NM Partnership for Mathematics and Science Education.

Thank you,

Selena

--

Selena Connealy, PhD  
Education and Outreach Manager  
New Mexico EPSCoR

1 University of New Mexico  
MSC04 2815  
Albuquerque, NM 87131-0001

EPSCoR Mail and Physical Address:  
1312 Basehart, SE, Albuquerque, NM 87106

Phone: 505-217-5605  
Fax: 505-246-6007

December 6, 2018

Jamie Gonzales  
Policy Division  
New Mexico Public Education Department, Room 101  
300 Don Gaspar Avenue  
Santa Fe, New Mexico 87501

Dear Ms. Gonzales:

The New Mexico Partnership for Math and Science Education (NMPMSE) is a statewide membership organization representing organizations and projects involved in STEM education. The members of the Partnership Board support the adoption of the proposed rule, **6.29.17 NMAC, New Mexico Computer Science Standards**. We believe that adopting the 2017 K-12 Computer Science Standards from the Computer Science Teacher Association (CSTA) is a step forward in ensuring that New Mexico's next generation has access to 21st century skills and knowledge. We underscore that **significant resources** must be invested by public and private entities to ensure that teachers are supported to successfully implement and support students to meet the K-12 Computer Science Standards. We believe that adopting the CSTA K-12 Computer Science Standards will support New Mexico's STEM teachers and students to learn the skills and knowledge needed to thrive in a global innovation and technology-based economy.

NMPMSE members have followed the development of the CSTA K-12 Computer Science Standards and we stand by the integrity of the process that was used to develop the standards. We believe the development processes allowed for multiple perspectives from computer science educators and computer scientists to craft a rigorous set of standards that reflects the current state of computer science education. We believe, also, that adopting these standards will be a step forward for New Mexico to be among other peer states in developing a comprehensive plan to ensure that our youth have access to computer science education.

We commend NM PED for considering the adoption of computer science standards and taking an important first step toward implementing a comprehensive plan that ensures all students have access to rigorous computer science courses throughout NM. We recommend that NM PED consider the nine policy ideas for improving computer science education put forth by the Code Advocacy Coalition in their state-specific fact sheet (<https://advocacy.code.org/>), a number of which call for coordination across both K-12 and higher education institutions.

Sincerely,

New Mexico Partnership for Mathematics and Science Education Governing Board

Selena Connealy, Treasurer; Zach Leonard, Co-Chair; Kersti Tyson, Co-Chair

**SANTA FE**  
ALLIANCE FOR  
**SCIENCE**

RECEIVED

SECRETARY OF EDUCATION

NOV 28 2018

NOV 28 REC'D

Secretary of Education

Refer To Jamie, Yanke

November 20, 2018

**CAREN SHIOZAKI**  
PRESIDENT

**GINGER RICHARDSON**  
VICE-PRESIDENT

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MAILING ADDRESS

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**Santa Fe, NM 87501**

PHONE 603.219.1899

**www.sfafs.org**

Christopher N. Ruszkowski, Secretary of Education  
New Mexico Public Education Department  
Policy Division  
300 Don Gaspar, Room 101  
Santa Fe, NM 87501

Dear Mr. Ruszkowski,

I am writing on behalf of the Board of Directors of the Santa Fe Alliance for Science. We commend you and the New Mexico Public Education Department for taking the initiative to adopt standards for computer science for our Kindergarten through 12<sup>th</sup> grade classes. We support adopting these standards in their current form, as they are well-informed and written by industry and educational experts in computer science.

These standards will help inform New Mexico educators when creating curriculum and identifying instructional materials for computer science education. It will help to align courses to meet common goals and standards for computer science courses. A number of teachers have already embraced these standards to inform their practice, but now that NM PED is adopting them, they will have greater confidence in their lesson plans.

The Alliance recognizes that computer science literacy is critical for the future success of today's students. Thus we appreciate your support of computer science education.

Regards,



Caren Shiozaki  
President of the Board  
Santa Fe Alliance for Science