



STATE OF NEW MEXICO
 PUBLIC EDUCATION DEPARTMENT
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HANNA SKANDERA
 SECRETARY OF EDUCATION

SUSANA MARTINEZ
 GOVERNOR

**OPTION FOR PARENTS
 CHARTER SCHOOLS DIVISION**

NOTICE OF INTENT TO SUBMIT CHARTER APPLICATION

INSTRUCTIONS

According to NMSA § 22-8B-6(B) this Notice of Intent to Submit Charter Application ("NOI") must be filed by the organizers of a proposed charter school to the Public Education Commission at the address below and to the superintendent of the school district in which the charter school is proposed to be located. *Failure to notify may result in your application being rejected.*

This year the NOI is due by close of business, January 10, 2012. Notice by mail will be timely if it is postmarked on or by January 6, 2012.

Notice to the Public Education Commission should be delivered one of the following methods:
 Electronically to: By mail or personal delivery:

KellyCallahan2@state.nm.us

PUBLIC EDUCATION COMMISSION
 c/o New Mexico Public Education Department
 Attn: Ms. Kelly Callahan, General Manager
 Options for Parents/Charter Schools Division
 300 Don Gaspar, Room 301C
 Santa Fe, New Mexico 87501

The NOI is to provide information for the primary point of contact, enrollment projections and a concise proposal overview (not to exceed 5 pages). You are strongly encouraged to send notice to the Superintendent of your local district by certified mail return receipt requested, or request a signed receipt when you deliver the NOI. Contact your local district regarding electronic filing.

1. General Information:

Name of Proposed School:	STEM Santa Fe Middle School		
Primary Contact Person	Dr. Ray Griffin		
Mailing Address:	320 Artist Road #70		
City: Santa Fe	State: NM	Zip: 87501	
Phone: 281-475-7007	Email: griffin.cr@gmail.com		

RECEIVED

JAN 10 2012

**Santa Fe Charter
 Schools Division**

2. Names, roles, and current employment of all persons on the applicant team, and qualifications of the team members to establish a high-quality charter school:

Name	Role	Employment	Qualifications
Dr. Ray Griffin Ed.D. Educational Administration, University of Washington	Founding Director	Educational Consultant, Charter School Consultant, School Director and Head of School.	Founder of Federal Way Public Academy, Federal Way, WA 1999-2003. Head of School Desert Academy of Santa Fe, NM. 2003-2007. CAO/Denver Arts and Technology Academy k-8 Charter school. 07-09. Director, Chinquapin Preparatory School, TX grades 6-8, 2009-2011.

3. Model of school: STEM - Charter school /middle school Grades 6-8.

Proposal: to open in 2013, a STEM based middle school, grades 6-8; initially enrolling 120 students in grades 6 and 7; adding 8th grade the following year and over the next several years to grow to approximately 200-270 students total, in grades 6-8 (facility dependent), approximately 90 students in each grade.

Rationale: At a time of heightened national attention to improving education in the fields of science, technology, engineering, and mathematics, the development of STEM-focused schools has rapidly gained momentum across the country as a strategy to boost knowledge and interest in the pursuit of these subjects and careers. While STEM schools historically have tended to target the top math and science students in a state or district, the new wave appears to have a broader reach, with many of the schools aimed especially at serving populations underrepresented in the STEM fields, such as African-American, Hispanic, female, and low-income students.

STEM Santa Fe middle school would have a thematically-integrated curriculum (e.g. fossil fuels, fresh water, local sustainable resources, high desert agriculture etc.), which changes annually, in addition to a strong college prep curriculum, which is standard in college prep middle schools. Like a school for the arts, there would be extended-day (after-school) opportunities, including STEM clubs and activities in student areas of concentration such as Robotics, HTML programming, network administration, math clubs, and the like. An important programming component of the school would be the requirement of additional school time for students who need supplementary instruction, with an emphasis on individualized, math/science and technical writing tutorials (faculty provided, with additional support from online resource tutorials and local STEM based community volunteers).

4. Does the school expect to contract with another entity for either management, or substantial oversight or direction in the school's operation? No: xx

5. Does the applicant team or any members of the team currently operate any other schools? No: xx .

6. If the proposal is a replication, identify the school(s) you are replicating and what data that you have to support this model should be replicated.

Many STEM schools are being created around the country. This school would seek to learn from successes and failures of existing STEM schools and replicate best practices, with local nuances provided by regional partners to make this a truly unique New Mexico based STEM school. See: [opportunityequation.org/report – school system/design](http://opportunityequation.org/report-school-system/design).

7. Vision/Mission statement. (2-3 sentences)

STEM Santa Fe *Mission and Vision*

Mission

STEM SF will prepare all students for future success in college and the 21st century with a program emphasizing Science Technology Engineering and Math. STEM Santa Fe will transform public education in the critical middle school years, when so many students with the potential for STEM-oriented futures are often lost. STEM Santa Fe will seek to eliminate educational inequity by providing STEM pathways so often available only to students in small private schools.

Vision Statement

- To become a premiere STEM middle school in NM, where 100% of our students meet state standards in math, science and reading.
- To create an innovative STEM school in NM, where students acquire a rigorous academic foundation that they can apply to the community and the world around them in meaningful ways.
- To create a rigorous and supportive, thematically-integrated academic program which will prepare 100% of our students to pursue the 4 year, top tier college of their choice.
- To be a middle school where all students gain the necessary skills and confidence to successfully earn a college degree in STEM fields.
- To matriculate students with character and a sense of civic responsibility, a significant percentage of whom will assume leadership positions in an increasingly scientific and technology based society.
- To work with New Mexico STEM partners to create an innovative, model school that helps to redefine the American middle school experience.

8. Student body to be served, including key demographic data and targeted geographical area of the proposed school. Describe the targeted student population including key demographic data (academic performance, home languages, ELL and special education populations). Identify where these students are most likely being educated currently and why they are expected to choose the proposed charter school for their future educational needs.

Equity in 21st century society can only be achieved if finances are not a barrier to the highest quality educational settings. STEM Santa Fe will be open to all students who have a genuine interest in these areas of emphasis. There is a strong demand for small, high quality academic middle schools, both locally and nationally. Families who are able sometimes pay up to \$19,000 per year for private middle schools. STEM Santa Fe will provide the same rigorous academic program with high expectations for all students and families in a free, public charter school.

9. Evidence and assessment of a community need for a school of this nature: Detail any objective surveys or other measures of local demand for the proposed educational program.

Currently, Santa Fe charter schools that enroll junior high/middle school students are full and have lottery drawings for wait-listed students. For example, in 2010 ATC wait-listed 271 7th grade applicants and all 81 applicants for 8th grade for a total of 352 wait listed students in grades 7-8 alone. (atcschool.org). Likewise, other charter schools that serve the middle school population also have wait lists.

10. Key innovative, unique and/or programmatic features the school will implement in order to accomplish its vision and mission (non-traditional school year, longer school day, partner organizations, etc.)

- A longer academic school year with more student contact days including activities with local STEM based organizations.
- A thematic, integrated curriculum: each year the entire school will integrate a STEM-based topic and every class and teacher will integrate academic vocabulary, writing, language arts as well as math and problem solving around school-designed themes, goals and objectives.
- Partnerships with the local scientific community and scientific institutions / organizations will be established to develop STEM-based community relationships and well established programs available to STEM students in NM. Initial contacts have been made.
- Participation in well established activities and programs: such as Math Counts, GUTS, and Shodor Interactive.
- Stem SF will make use of engaging and purposeful STEM projects and hands-on activities, for example: [SciLinks](#), [Imaginative Inventions](#), NASA's [Engineering Design Challenges](#) website, [Engineering for All](#), [eCYBERMISSION](#) a free, web-based Science, Technology, Engineering and Mathematics competition for grades 6-9, [PhET Simulations](#), online visualizations in the sciences and math that allow the student to manipulate variables and analyze the results, NASA ([My NASA Data](#)), students develop skills in analyzing and graphing data as they learn about [Solar Energy](#). [Working Model Hearts](#): a project in which students make a working model to demonstrate their learning in physiology.

11. How the school will be more effective than the schools currently serving the targeted student population, and/or plans to improve student achievement and exceed the academic performance of existing public schools in the targeted service area and any data you have to support this assumption?

A STEM focused middle school will allow all students the opportunity to be in more advanced classes (for example: Algebra I in 7th grade and Physics in 8th grade) where they will be prepared for AP, IB, dual credit and advanced science classes in high school. College success in students' initial college or university classes is the goal. STEM SF students who do not meet higher curricular expectations (e.g. all 8th grade students must pass at least Algebra I) will be provided tutoring and have the opportunity to pass a competency exam after the term in order to meet the schools "proficient" standards. The competency standards will be linked to "common core-standards". STEM schools around the country show a consistent and pervasive improvement in student's math achievement.

"Innovative designs can push the limits of practice for all students. We need to re-engage our most disconnected students in rigorous math and science education and place them on pathways to graduation and postsecondary education. At the same time, we must provide opportunities for the most successful students in math and science to accelerate beyond what is traditionally available in high school." opportunityequation.org

The act of applying to a school with very high expectations for all of its students will signal a choice made by parents and students that they wish to seek and meet a higher challenge and reach higher achievement levels. Past experience at the school I started in Washington State, (FWPA), has shown me that when a school starts with high standards and expectations for all, meeting achievement goals can be immediate and sustainable. Very importantly, the teachers that are recruited and attracted to STEM SF will be motivated to help make it successful. High quality recruiting of teachers is essential. It is very well established that excellent teachers produce excellent "value-added" results that are life changing.

"In 2009, the Carnegie Corporation of New York-Institute for Advanced Study Commission on Mathematics and Science Education released a report, The Opportunity Equation: Transforming Mathematics and Science Education for Citizenship and the Global Economy. The report states that excellent mathematics and science learning for all American students will be possible only if we "do school differently" in ways that raise expectations and place math and science more squarely at the center of the educational enterprise. The world has shifted dramatically – and an equally dramatic shift is needed in educational expectations and the design of schooling to provide our students with the STEM knowledge and skills that are crucial to virtually every endeavor of individual and community life. Endorsed by over 65 organizations, the report provides the strategies to help make these changes through key recommendations for stakeholders including the federal government, governors and states, school districts, nonprofit organizations, colleges and universities, businesses, unions, philanthropy, and other stakeholders."

Carnegie Corporation : <http://opportunityequation.org/report>

"Research also tells us that there is a clear link between early student motivation, and student persistence in pursuing K–12 STEM subjects and STEM fields once they leave secondary school and enter college and beyond. There has been an increase in students' interest in pursuing STEM fields at the secondary level. Many students are making career decisions before getting to college. A recent national [Harris Interactive survey of college students](#) reports that 78% made the decision to study STEM fields in high school and about 21% decided to pursue STEM while they were in middle school. The survey also points out that student motivation to pursue STEM studies in college largely came from a teacher and/or a class. Students decide to pursue a STEM career because of a good salary, a positive job potential, and a degree program would be intellectually stimulating and challenging. We should give students credit for being perceptive and paying attention to larger trends. And congratulations to all the K–12 teachers who are working to increase the number of students who are interested in pursuing STEM careers." (NTSA Blog , Eberle 11/8/2011)

From: ACT Corporation [Developing the STEM Educational Pipeline](#)

"Recently released [National Assessment of Education Progress \(NAEP\) scores for mathematics](#) show improved student performance in this subject. This is good news, although we still have a long way to go before we can claim that all students are math literate. We don't know about student literacy in the other (STEM) areas however—the S, T, or E. Science is not nationally assessed by NAEP assessments at the same frequency as mathematics. There is no current NAEP assessment for engineering or technology (although it is coming in 2014) and there is a [framework](#) available that indicates which topical areas (engineering and technology) will be assessed."

"What ACT's research shows is clear: The students most likely to major in STEM fields in college and persist to earn their degrees are those who develop interests in STEM careers through early career planning and take challenging classes that prepare them for college-level science and math coursework."

Declining Student Interest in STEM Majors

ACT research suggests that, at the very time our nation most needs promising students to enter STEM majors and careers, students' interest in these fields is on the decline.

FACT: Over the past ten years, the percentage of ACT-tested students who said they were interested in majoring in engineering has dropped steadily from 7.6 percent to 4.9 percent.

FACT: Over the past five years, the percentage of ACT-tested students who said they were interested in majoring in computer and information science has dropped steadily from 4.5 percent to 2.9 percent.

Fewer Than Half of High School Graduates Ready for First-Year College Math and Science

ACT developed College Readiness Benchmarks based on a nationally representative sample of thousands of ACT-tested students enrolled at U.S. colleges and universities. With respect to these College Readiness Benchmarks, score results for the 2005 high school graduating class are not encouraging:

FACT: Fewer than half (41 percent) of ACT-tested 2005 high school graduates achieved or exceeded the ACT College Readiness Benchmark in Math.

FACT: Only a quarter (26 percent) of ACT-tested 2005 high school graduates achieved or exceeded the ACT College Readiness Benchmark in Science. Students who fall short of ACT's College Readiness Benchmark scores likely lack at least some of the skills they'll need during their first year of college. Although some of these students may still succeed in college though hard work, our research shows—not surprisingly—that they are more likely to require remedial help, which is expensive and time-consuming, and less likely to persist to a degree than students who leave high school ready for college-level coursework.

FACT: Nearly three-quarters (70 percent) of college students majoring in science fields who met the ACT College Readiness Benchmark in Science persist in those majors, compared to only 61 percent of students who did not meet the benchmark. *Course Selection and Rigor—Keys to College Readiness*. ACT research clearly demonstrates a strong relationship between the amount and kind of high school courses students take and their readiness for college.

FACT: In the graduating class of 2005, just slightly more than half (56%) of ACT-tested students reported taking the recommended core curriculum for college-bound students: four years of English and three years each of math (algebra and higher), science, and social studies.

- Evaluate and improve the alignment of K–12 curriculum frameworks in English/language arts, mathematics, and science to ensure that the important college and work readiness skills in STEM fields are being introduced, reaffirmed, and mastered at the appropriate times.

High Expectations

- Raise expectations that all students need strong skills in mathematics, science, and technology and that all students can meet rigorous college and workplace readiness standards.
- Require all high school students to take at least three years of rigorous, specific college-preparatory course sequences in math and science.
- Recruit, train, mentor, motivate, reward, and retain highly qualified mathematics, science, and technology professionals to teach in middle school and beyond.

Expanded, Rigorous 8–12 Course Offerings

- Ensure that every student has the opportunity to learn college readiness skills and has access to key courses in the STEM fields.
- Evaluate and improve the quality and intensity of all STEM core and advanced courses.”

ACT white paper: *Developing the STEM Educational Pipeline, 2006*

Signature of founder(s)

Date: _____

_____ [PRINT NAME]

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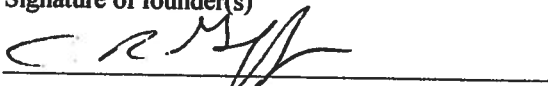
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Signature of founder(s)



Charles R. Griffin

[PRINT NAME]

Date: 12/10/12

NOI RECEIPT

THE CHARTER SCHOOL LETTER OF INTENT FOR:

STEM SANTA FE MIDDLE SCHOOL HAS BEEN RECEIVED BY MY OFFICE ON JANUARY 10, 2012 BEFORE THE CLOSE OF BUSINESS.

BY _____

POSITION _____

DATE _____