



School LEA: 5805023

School Name: RUSSELLVILLE JR. HIGH SCHOOL

Submitter Information

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Date of application: 5/30/2014

District Information

District LEA: 5805000
District Name: RUSSELLVILLE SCHOOL DISTRICT
Superintendent Name: RANDALL WILLIAMS
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General Questions

School's Most Recent Accountability Status: Needs Improvement
Special Accountability Status: N/A
Is this a brand new LEA? No
Is this an ALE School? No

Vision and Mission

Russellville Junior High School (RJHS) will provide more students the opportunity to learn about the science, technology, engineering, and math (STEM) career paths by allowing them access to these Project Lead The Way (PLTW) electives in the 8th grade. The goals and performance standards in our proposed plan will only enhance the goals of our district's educational philosophy and the STEM initiative.

During a 2013-2014 professional development, Russellville Junior High School faculty members brainstormed to develop their educational beliefs, and the number one belief was that a highly trained school staff is willing to adapt to meet the needs of the students. The Russellville School District recently surveyed 120 current seventh graders to see how many students would choose to take the STEM electives as 8th graders, and 68% said they would if their schedule allowed it! One of the first goals (G1) in our proposed plan is to increase student participation in STEM curriculum options. To do so would require flexibility in scheduling and a waiver from the accreditation requirements regarding 8th grade curriculum. By responding to student needs and interests, RJHS will be acting as the exemplary staff they believe all schools need in order to reach their overall goal of student achievement.

RJHS teachers and administrators also believe that in a successful classroom, the work is student centered, engaging, and relevant to the students. The students see the value of what they are accomplishing and take responsibility for their learning. Goal two (G2) of our proposed plan is to increase the percentage of students who show growth from 7th to 8th grade on the PARCC exam. The content in these classes will be relevant and open their eyes to the realm of possibilities in technical areas after graduation. Students will want to learn more about these skills that directly impact their future.

Russellville Junior High School received Project Lead the Way national accreditation in 2012 for their Gateway to Technology 8th grade pre-engineering program. This accreditation gave the Russellville School District the desire to explore creative options in order allow students to be more in charge of their elective



courses even in the 8th grade. If more students are exposed to the STEM elective options early on, they are more likely to continue on the Pathway to Engineering track starting in the 9th grade.

RJHS strongly believes that schools should teach all students skills, work ethic, citizenship, and relevant content. This statement aligns with what ACE Director William Walker said regarding education in Arkansas, "We have a moral obligation to all of our students – not just the top 5 of 10 percent – to offer the STEM skills that will be required in every 21st-century career." These electives are not just fun and exciting; they are the future for our students and community, and it is our duty to provide them access to that education. We are to train students for their future, not our past.

Lastly, RJHS believes that a quality instructional program builds the creative process and is real world applicable for students. The staff strives to meet the needs of all students, and they want to make data driven decisions. Goal #1 of our proposed plan is to increase student participation in STEM curriculum options, and we are basing that goal off of students' feedback. Students have signed up for these courses, and the school staff has been unable to fulfill several requests due to scheduling conflicts with the accreditation requirements for 8th graders. Governor Beebe has said that the STEM effort is to educate more K-12 students in those fields that will "need the most qualified workers and have the most potential for expanding our state's economy." RJHS wants to rise to this challenge and begin educating more students in the STEM careers that will prepare them for their future.

The vision of Russellville Junior High School is to create a safe learning environment that promotes quality teaching, a great school culture, and a high level of student achievement. The mission is educating every student every day, whatever it takes. To remain true to that mission statement, RJHS has to show how they are truly reaching every student, not just the ones who can fit that learning in their schedule. Taking these courses will only raise the level of student achievement as students problem solve and work through challenging, project-based scenarios that mimic the real world.

Russellville School District's vision is to educate, equip, and empower all students to be productive, contributing members of their school, their community, and their world. There is no better way to meet this vision than to give more students the opportunity to learn how to become contributing members of their future and our society. If RJHS does not hook students into the STEM field early in their academic careers, they might miss that calling completely, simply because they couldn't fit these courses into their busy schedules. RSD will not accept that logistics are why students are not learning about their exciting, evolving, and innovative future. Furthermore, RSD offers more intensive STEM electives (Pathwise to Engineering) beginning in the 9th grade, and RJHS wants to continue to build that program by supplying more interested students who will complete the engineering pathway all the way through high school. RJHS needs to become a strong feeder school for Russellville High School – so that our district's commitment to STEM is fulfilled to its maximum potential.



Goals and Performance Targets

Goal	Goal Description	Goal Assessment
1	Goal #1 is to increase the number of students enrolled in the 8th grade STEM courses because of its high rigor, practicality, and interest level.	RJHS will double the number of students enrolled in the 8th grade STEM courses over the next four years, using 2013-2014 enrollment numbers as the baseline. - RSD will also chart student enrollment in all STEM electives grades 9-12 over the next 4 years to see determine if students are remaining in the STEM electives once they begin in 8th grade.
2	Goal #2 is to improve student performance as evidenced by a higher percentage of students reaching growth because of their enrollment in STEM classes in 8th grade.	A baseline for student growth will be established using the 2015 PARCC seventh-grade math growth scores. Beginning with the 2016 PARCC assessment, eighth-grade math growth scores for students attending STEM elective classes will be compared to scores for students not attending STEM elective classes. Scores will be charted and compared each year. A higher percentage of students enrolled in STEM electives will meet their math growth benchmark.



Requested Waivers

Code section, Rule, or Local Policy	Goal	Rationale
<p>Russellville School District requests a waiver from the standards of accreditation 9.03.3.5 Physical Education, 9.03.3.6 Fine Arts, and 9.03.3.9 Career and Technical Education (Career Development), requirements in 8th grade, for those 8th grade students who wish to enroll in the STEM electives offered instead (design and modeling, automation and robotics, magic of electrons, & science of technology).</p>	<p>1</p>	<p>Increasingly, business leaders, educators, industry experts, and others are rallying around the importance of science, technology, engineering, and mathematics (STEM) in education. This is a key issue for K-12 education and it's a requirement to create the kind of workforce our country needs. If the United States is to maintain its economic power, then we will need a STEM-educated workforce that can meet the demands of business in an increasingly complex and technology-driven economy. In fact, a study by Georgetown University Center on Education and the Workforce shows that by 2018, 8 million jobs in the U.S. economy will require a college degree in STEM. (U.S. News and World Report http://www.usnews.com/news/articles/2011/08/29/stem-education--its-elementary)</p> <p>In August, 2011, Governor Mike Beebe and his Workforce Cabinet announced a pilot program - STEM Works - focused on Science, Technology, Engineering, and Math (STEM) education in high schools and universities, so that the state's workforce will be able to meet the escalating demand for employees in high-tech fields. STEM Works specifically seeks to overhaul the ways in which Arkansas high school students receive STEM education and to increase the number of well-qualified STEM teachers. Russellville Junior High is an "advanced school for the Stem Works Project" but is unable to fully implement the STEM initiative because of Standards of Accreditation restrictions or mandates.</p> <p>Russellville Junior High School students have 7 periods in 8th grade. They are currently required to take the 4 core subjects (math, English, science, and history), PE or athletics, fine arts, and career development. RJHS currently offers Career Development (course code 399280) for one semester followed by art (course code 388510) for a semester, that all 8th graders are enrolled in. RJHS received a PLTW grant to teach design and modeling, automation and robotics, magic of electrons, and science of technology in the 8th grade. RJHS would like to offer more students the opportunity to take these STEM electives. Students interested in STEM classes are unable to do pursue that interest if they are enrolled in two electives already, such as band and athletics. If students are in band/choir and athletics, they cannot take a STEM elective due to the career development requirement in 8th grade. Currently, there are 79 students in both band/choir and athletics who are not allowed to pursue STEM options due to the 8th grade requirements. In the 8th grade, students are still not sure which area of</p>



academics and extracurricular activities suit them best and are trying to explore them all. RJHS is fortunate to have many choices to offer students but would like to increase the number of students who could benefit from the STEM electives.

RJHS would incorporate aspects of the career education curriculum into the STEM courses by requiring students to take the Kuder assessment online that is normally taken through Career Development. The STEM classes also incorporate career curriculum and will have community members in STEM fields speak to the students about future career paths. The STEM classes, design and modeling, automation and robotics, magic of electrons, & science of technology, take place physically in both a classroom and computer lab. So, students will still be exposed to computer technology they would normally get in career development as well as advanced technical skills.

Math, science, and technology are not the only subjects taught in engineering- other subjects are taught in the midst of PLTW classes. You cannot teach technical sketching and drafting and product design without the incorporation of art concepts. Everything from proportion and scale to perspective sketching must be learned and understood by the students in order for them to advance in their PLTW journey.

RJHS requests a waiver from 9.03.3.5 Physical Education, 9.03.3.6 Fine Arts, and 9.03.3.9 Career and Technical Education (Career Development), for 8th grade students who will enroll in the STEM electives. Having the option for some students to pursue STEM courses in the eighth grade rather than taking these courses could set these students on an academic path to STEM careers.



Documentation Checklist

Submission Status	Document Category
Submitted	Stakeholder Engagement
Submitted	Shared Leadership
Submitted	Election Results
Submitted	Professional Development Scope
Submitted	Budget
Submitted	References
Submitted	Approved School Board Resolution
Submitted	Statement of Assurances