



Nevada Department of Education

Application For 2007-2008 Mathematics and Science Partnership Grant

Applying Institution or Organization: Board of Regents, NSHE, obo University of
Nevada, Las Vegas

Program Title: The Nevada Math and Science Leadership Cadre

Program Director

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Amount of MSP Funds Requested in Year One: \$ 153,181

Number of Teachers to be Served Directly in Year One: 540 (estimated)

Number of Teacher Contact Hours in Year One: 5,088 (estimated)

Certification by Authorized or Institutional Official:

The applicant certifies that to the best of his/her knowledge the information in this application is correct, that the filing of this application is duly authorized by the governing body of this organization or institution, and that the applicant will comply with the attached statement of assurances.

Rochelle R. Athey

Typed or Printed Name of Authorized Official

Executive Director, Sponsored Programs

Title

Signature of Authorized Official

Date

STATEMENT OF ASSURANCES

Should an award of funds from the Mathematics and Science Partnership Program be made to the applicant in support of the activities proposed in this application, the authorized signature on the cover page of this application certifies to the Nevada Department of Education that the authorized official will:

1. Upon request, provide the Nevada Department of Education with access to records and other sources of information that may be necessary to determine compliance with appropriate federal and state laws and regulations;
2. Conduct educational activities funded by this project in compliance with the following federal laws:
 - a. Title VI of the Civil Rights Act of 1964
 - b. Title IX of the Education Amendments of 1972
 - c. Section 504 of the Rehabilitation Act of 1973
 - d. Age Discrimination Act of 1975
 - e. Americans with Disabilities Act of 1990
 - f. Improving America's Schools Act of 1994
 - g. No Child Left Behind Act of 2001;
3. Use grant funds to supplement and not supplant funds from nonfederal sources;
4. Take into account during the development of programming the need for greater access to and participation in the targeted disciplines by students from historically under represented and under served groups;
5. Submit, in accordance with stated guidelines and deadlines, all program and evaluation reports required by the U.S. Department of Education and the Nevada Department of Education.

C. Partnership Agreements

The project team behind the *Nevada Mathematics and Science Leadership Cadre* represents a dedicated and experienced array of researchers and educators in science and mathematics. The team is composed of the Program Director/Principal Investigator (PD/PI), five partner Co-Investigators (Co-Is), and two additional partners. The team represents the wide spectrum of interests and regions that characterize Nevada, including north and south, rural and urban.

Dr. Janelle Bailey, of the University of Nevada, Las Vegas (UNLV) Department of Curriculum & Instruction in the College of Education, will provide overall leadership and direction as the project's PD/PI. Final decision-making and communication, as well as project evaluation data collection and analysis, responsibilities lie with Dr. Bailey. She also will provide guidance on issues relating specifically to science education.

Dr. Edward Keppelmann, of the University of Nevada, Reno (UNR) Department of Mathematics & Statistics in the College of Science, will serve as the Co-I responsible for leadership and guidance in the area of mathematics education. Drs. Bailey and Keppelmann will help ensure that current education and science research is incorporated throughout the project.

The Lincoln County School District (LCSD) is the project's local education agency (LEA) partner, providing leadership and support to all of Nevada's school districts and serving as the project's fiscal agent. Superintendent Clark "Rick" Hardy will serve as the primary contact/Co-I for LCSD and ensure the district's active participation in the project.

The Southern Nevada Regional Professional Development Program (SNRPDP) is also a project partner, bringing its vast repertoire of professional development resources and supporting the long-term sustainability of the project. Mr. Doug Lombardi, Regional Trainer for K-12

Science Education and Program Evaluation, will serve as a Co-I supervising the professional development offerings through SNRPDP both during and after the project. Mr. Lombardi will also assist Dr. Bailey in collecting and analyzing project evaluation data. Ms. Dorothea Hepworth, Regional Trainer for Lincoln County, is the Co-I serving as the liaison with LCSD and advisor regarding issues unique to rural teachers, students, and districts, and will help Mr. Lombardi in coordinating the SNRPDP professional development offerings.

Three professional organizations will be project partners, providing assistance in creating and developing the cadre and ensuring long-term sustainability via networking opportunities for mathematics and science teachers in the state. The organizations are (1) the Nevada State Science Teachers Association (NSSTA), (2) the Southern Nevada Mathematics Council (SNMC), and (3) the Southern Nevada Science Teachers Association (SNSTA). Ms. Jenelle Hopkins will serve as a Co-I and primary liaison with the presidents of these organizations (currently, Ms. Hopkins, Mr. Derek Fialkiewicz, and Ms. Sheila Siino, respectively).

D. Results of Needs Assessment

In its strategic plan for 2002-2006, the Nevada State Board of Education (SBE) stated that every learner will receive quality instruction and be served by teachers who are well-prepared, by ensuring that every classroom will have a teacher fully licensed in the subject areas being taught and who will be involved in ongoing professional development using Nevada Standards. In short, the SBE set forth a goal that “by 2005-2006 all students will be taught by highly qualified teachers.”¹ As shown in Table 1, Nevada is falling short of that goal. More than half of Nevada’s counties have at least 10% of their mathematics and science teachers who are not highly qualified, with just over one-quarter statewide not highly qualified. This represents

¹ Rheault, K. (2007). 2006-2007 state accountability summary report. Retrieved on October 30, 2007, from <http://www.nevadareportcard.com/>

more than 2000 classrooms in which students are not being taught by highly qualified teachers.

*Table 1. Nevada Core Subject Classes NOT Taught by Highly Qualified Teachers
(Data as of October 1, 2006)*

District	Mathematics	Science	District	Mathematics	Science
	%	%		%	%
Carson City	12.1	3.4	Lincoln	0.0	0.0
Churchill	28.0	25.6	Lyon	17.8	16.4
Clark	30.5	30.1	Mineral	0.0	0.0
Douglas	6.3	5.4	Nye	23.3	11.7
Elko	18.2	7.1	Pershing	0.0	0.0
Esmeralda	N/A	N/A	Storey	41.7	0.0
Eureka	50.0	0.0	Washoe	12.5	10.4
Humboldt	4.5	1.8	White Pine	13.8	14.3
Lander	9.1	0.0			

In addition to having less than highly-qualified teachers in Nevada classrooms, an appreciable number of students are not meeting standards for the mathematics HSPE. Table 2 shows the current level of mathematics students who are below the meeting standards level. In almost all counties, at least one-quarter of the students are not meeting standards on the mathematics High School Proficiency Exams (HSPEs). In seven counties, one-third of the students are not meeting standards on the mathematics HSPE.

*Table 2. Nevada Students Not Achieving the Meets Standards Level on the
2006-2007 High School Proficiency Exams*

District	Mathematics	District	Mathematics
	%		%
Carson City	25	Lincoln	29
Churchill	29	Lyon	38
Clark	38	Mineral	45
Douglas	17	Nye	45
Elko	39	Pershing	32
Esmeralda	N/A	Storey	42
Eureka	no data	Washoe	31
Humboldt	25	White Pine	34
Lander	26		

The 2007 science HSPE field test results show that average correct responses for Nevada's districts range from 35% to 53%, with most lower than 50%. Although meeting

standard levels for the science HSPE have not yet been assigned, these low percentages are of concern.

E. Abstract

The *Nevada Mathematics and Science Leadership Cadre* will recruit and train 34 teacher-leaders (grades 6-12) who will be tasked to improve the content knowledge of secondary science and mathematics teachers throughout Nevada. In addition to content knowledge, cadre members will become experts in state standards, benchmarks, and achievement indicators in order to assist teachers in their counties in preparing students for the mathematics and science HSPEs. Members will participate in Summer Leadership Academies, fall content and reflection courses, and spring professional conferences and reflection courses in each of the three years of the project; additionally, they will share their new knowledge of content and state standards with their colleagues during the spring through the teaching of courses under guidance from RPDP, UNLV, and UNR. The courses that cadre members take – as well as those they teach in their communities – will assist teachers in achieving highly qualified status.

F. Project Narrative

This project will develop a cadre of well-trained teacher-leaders that will provide professional development to other mathematics and science teachers throughout the state. This cadre will integrate the members' (1) experiences from a Summer Leadership Academy (SLA), focused on applying mathematics and science content and developing leadership skills; (2) active participation in online content courses to deepen content knowledge; and (3) development to become trained professional development course instructors who will benefit teachers in their communities. By increasing the number of highly qualified teachers across the state, this project will help to increase student achievement on the mathematics and science HSPEs.

(1) Needs Addressed

As described in Section D above, more than 25% of the math and science courses in Nevada are taught by teachers who do not meet highly qualified status.² This project will provide opportunities for teachers to improve their content knowledge, allowing them to move toward achieving a status of highly qualified, specifically in eligible rural school districts: Churchill, Elko, Esmeralda, Eureka, Humboldt, Lander, Lincoln, Mineral, Nye, Pershing, Storey, and White Pine. In these districts, professional development courses, such as the ones provided in this project, can be used directly to achieve highly qualified status under the Nevada HOUSSE option.³ Teachers participating in the cadre will receive 21 graduate credits each, equivalent to 315 contact hours, far exceeding the 150 hours required in the HOUSSE option. Cadre members will provide content courses to teachers in their counties, worth 3 graduate credits (45 contact hours) each. In other words, this will help teachers throughout the state come closer to highly-qualified status by attending the high-quality professional development provided by the cadre.

The cadre will be trained in using Nevada’s mathematics and science education standards and supporting documents, as well as receive content training. The cadre will use this knowledge to provide professional development that meets the specific needs of their counties. By focusing on these needs, teachers can receive training on the content and instructional strategies that will best help them improve student achievement on the mathematics and science HSPEs. The project embraces Standard V of the Nevada Professional Development Standards where “professional development deepens educators’ content knowledge...[and] instructional strategies to assist students in meeting rigorous academic standards...,” as well as using “a trainer of trainers model, thereby investing in professional resources already within the district/state...”

² Ibid.

³ Nevada Department of Education. (2007). Nevada guidance for meeting the “highly qualified” definition (rev. 10-9-07). Retrieved November 6, 2007, from <http://www.nde.state.nv.us/accountability/nclb.html>

(2) Program Goals and Objectives

The goal of this project is to develop a cadre of teacher-leaders who will conduct high-quality mathematics and science professional development throughout the state that leads to increased student achievement on the mathematics and science HSPEs. To accomplish this goal, the project has two objectives: (1) create a cadre of teacher-leaders with an increased knowledge and use of (a) mathematics and science content, (b) state standards and related supporting documents, and (c) best-practices in professional development; and (2) guide cadre members in offering high-quality professional development for peers in their communities in order to (a) stimulate intellectual growth and upgrade the content knowledge and skills of mathematics and science teachers throughout Nevada, including rural areas, and (b) help these same teachers to effectively use state standards, benchmarks, achievement indicators, and item specifications in order to (c) better prepare Nevada's students for the mathematics and science HSPEs.

(3) Project Activities

The *Nevada Mathematics and Science Leadership Cadre* will develop teacher-leaders who will train other secondary teachers throughout the state in order to increase their content knowledge and understanding of the state standards. As participants of the cadre, the selected teacher-leaders will earn up to 7 graduate credits per year, for a total of up to 21 graduate credits over the life of the project. Cadre members will also provide a three-credit graduate level content course each year to teachers in their counties. The following are the elements of the proposed project.

- (a) Secondary teachers from both the mathematics and science content areas will be selected to participate in the *Nevada Mathematics and Science Leadership Cadre*. One mathematics

teacher and one science teacher will be selected from each of the 17 counties in Nevada, totaling 34 members in the cadre, and representing all levels of secondary (grades 6-12) mathematics and science courses.

- (b) The project will target teachers with 5-10 years experience. This is intended to help retain teachers during this vulnerable period when many mathematics and science teachers leave the profession, by giving them skills and respect as teacher-leaders in the state. Superintendents and principals will be encouraged to nominate teachers who are in need of attaining the highly qualified status for the courses they are teaching.
- (c) Teachers who wish to be part of the cadre will go through an application process to be reviewed and selected by members of the project team. Applications will be solicited via superintendents in the rural regions and through Washoe and Clark County School Districts Mathematics and Science Coordinators, as well as notices placed on math and science professional organizations websites and in newsletters.
- (d) Selected teachers will serve on the cadre for three years, the entire period of the project.
- (e) Three-day SLAs will be held in the summers of 2008, 2009, and 2010. The purpose of the SLA is to train the cadre on how to use state mathematics and science standards, benchmarks, achievement indicators, and item specifications when planning their lessons and evaluating curricular materials. Effective organization, implementation, and facilitation of professional development will also be discussed to help cadre members become exemplary professional development providers in their counties. The first three-day SLA would be held during the period June 23-27, 2008. In addition to the project team, speakers from WestEd's National Mathematics and Science Leadership Academy will present on key research findings and promising strategies in professional development, organizational development,

and organizational change as they relate to science and mathematics education reform. For attending the SLA, cadre members will receive a stipend to cover their time and travel, as well as two graduate credits through an UNLV-RPDP course that will be created specifically for the proposed project.

- (f) A cadre website will serve as a repository of professional development materials and activities developed by the cadre, as well as an electronic communications hub in which the cadre members can share, reflect and ask questions. The hub will be developed and maintained by students from LCSD, specifically, Mr. Cameron's business class at Lincoln County High School. The free, open-source Moodle software will be used as the web interface to facilitate communications. The website will link with the Newton Network for science educators, SNMC's online portal, and RPDP's website.
- (g) During the fall of 2008, 2009, and 2010, cadre teachers will take high-quality, online, graduate-level courses in their content areas. The number of credits (up to three per semester) will depend upon the courses selected. The cadre member will select a course that meets their personal professional development needs in terms of increasing their content knowledge; the selection will be approved by the project leadership prior to enrollment. Some examples of high-quality, online course are those offered through the NSTA Institute (<http://www.nsta.org/pd/institute.aspx>).
- (h) At the same time the cadre members are taking their fall course, they will be grouped into smaller learning teams to share and reflect upon their coursework findings over the cadre website. These teams could all be taking the same class or same kind of class, or each team could have a cross-curricular membership; the exact groupings will be made after the cadre members and courses are determined. These sessions will occur at pre-arranged meeting

times that would be facilitated by Dr. Bailey and Mr. Lombardi and supported by the other Co-Is. For active participation in these online meetings, cadre members will receive one graduate credit through an UNLV-RPDP course that will be created for the project.

- (i) A mid-year assembly (MYA) of the cadre will be convened at the Southern Nevada Regional Math and Science Conference, held in late January/early February of 2009, 2010, and 2011. Cadre teachers will attend specially-designed workshops that will build skills in areas that are in need of support, as determined by Dr. Bailey from the fall online sessions. After the conference there will be a face-to-face meeting with all cadre members to share successes and concerns and to help plan the topics for the following SLA. In Years 2 and 3, each cadre member will be required to present at least one session at this conference. Cadre members will receive one graduate credit through a pre-existing UNLV-RPDP course for attending the conference and participating in leadership sessions.
- (j) In the spring of 2009, 2010, and 2011, cadre members will each teach a three-credit, graduate-level course in their content areas for teachers in their home counties that will focus on content and state guidance documents (e.g., standards). These classes will be part of the UNLV-RPDP course catalog, based on current RPDP content courses and modified to meet the needs of the individual counties. The PD/PI, Co-PIs, and RPDP will provide guidance and feedback to the cadre members as they develop and implement their courses. Through these courses, the project will impact up to 700 mathematics and science teachers in Nevada.

(4) Timeline

The timeline of project activities for Year 1 is provided in Table 3. Years 2 and 3 follow the same basic timeline as Year 1's items *e* through *i*. The SLAs will provide feedback to the cadre's previous year of activities and adjust content to further develop members' leadership

skills. Updates on student performance on the HSPEs will occur, as well as any updates to state standards and guidance documents. The focus of the Year 2 SLA will be on cadre members' abilities to facilitate change in their counties and to present at professional conferences. The focus of the Year 3 SLA will be on sustainability of members' leadership activities and writing grant proposals.

Table 3. Timeline of Project Activities for Year 1

Date	Activity
March 15, 2008	(a) Cadre website development begins. Temporary home page, with announcement of project, available for public access.
March 15, 2008	(b) Announcement that applications for cadre membership are being accepted is sent to all Nevada school district offices, mathematics and science teacher mailing lists, professional organizations, and RPDPs.
April 15, 2008	(c) Cadre applications closed.
May 1, 2008	(d) Cadre members selected by project team.
Week of June 23-27, 2008	(e) First SLA occurs, providing initial leadership training to cadre. The focus of the SLA will be construction and curricular relevance of state mathematics and science standards, benchmarks, achievement indicators, and HSPE item specifications. The academy will also lay the groundwork for the fall online course sessions taken by cadre members and the spring courses that will be taught by the cadre members.
Fall 2008	(f) Cadre members participate in online content courses, as well as online sharing and reflection sessions.
Spring 2009	(g) Cadre members conduct content courses in their counties.
Spring 2009	(h) Cadre members attend the Southern Nevada Regional Mathematics and Science Conference, with SLA follow-up sessions (i.e., on “unwrapping the standards”), and will meet together in a MYA to discuss fall content courses in which they participated and spring content courses they are conducting in their counties.
Summer 2009	(i) Annual evaluation report sent to the State Department of Education.

(5) Program Personnel

Table 4 summarizes the experience, qualifications, and duties of the project leadership team for the *Nevada Mathematics and Science Leadership Cadre*.

Table 4. Personnel Involved in the Nevada Mathematics and Science Leadership Cadre

Name	Institution	Qualifications	Project Duties
Dr. Janelle Bailey	UNLV, College of Education	Ph.D. Teaching & Teacher Education, 10 years in education research, professional development (PD), and science teaching	Project Director/PI: project leadership, communications, science and science education, SLA leadership team, evaluation
Dr. Edward Keppelmann	UNR, College of Science	Ph.D. Mathematics, 16 years in mathematics research, PD, and educational outreach	Partner/Co-I: mathematics and mathematics education, SLA leadership team
Mr. Clark “Rick” Hardy	LCSD	M.S. Education Administration, Superintendent, 28 years in administration and science teaching	Partner/Co-I: fiscal agent, NV school district coordination
Mr. Doug Lombardi	SNRPDP	M.S. Education, M.S. Engineering, 9 years in PD and science and mathematics teaching	Partner/Co-I: SLA leadership team, academic year PD operations, evaluation, sustainability
Ms. Dorothea Hepworth	SNRPDP	M.Ed. Elementary Education, 23 years in PD and teaching, NV Presidential Award	Partner/Co-I: rural counties facilitator, SLA leadership team, academic year PD operations
Ms. Jenelle Hopkins	NSSTA	M.S. Geoscience, 14 years in PD and science teaching, NSF Einstein Fellow, NBC Teacher	Partner/Co-I: SLA leadership team, sustainability
Mr. Derek Fialkiewicz	SNMC	M.Ed. Curriculum & Instruction, 12 years in PD and mathematics teaching	Partner: SLA leadership team, sustainability
Ms. Sheila Siino	SNSTA	M.A. Creative Arts in Education, 16 years in PD and science teaching	Partner: SLA leadership team, sustainability

(6) Institutional Capacity

The UNLV College of Education offers training for both preservice and inservice teachers. Each year, more than 3000 teachers take graduate-level coursework through a number of Masters Degree programs. Dr. Bailey teaches courses for both the undergraduate and graduate science education programs, incorporating education research and helping teachers connect theory to their own practice.

The UNR College of Science brings together disciplines in science and mathematics in

seven departments and two state agencies, training more than 1400 students in these fields. As Director of Outreach, Dr. Keppelmann works to bring the cutting-edge research of the College of Science to the public and to educators and students throughout the state. More than 150 faculty and 14 research centers support the College's goals of scientific education and research.

Lincoln County School District is located in rural Eastern Nevada. The primary goal of the district is that all students will perform at grade level and pass the HSPEs, with teachers actively using state standards to promote increased student achievement. The district has a long-standing partnership with SNRPDP to provide high-quality professional development and resources to teachers throughout Nevada. LCSD serves as the fiscal partner of SNRPDP for the Middle School Targeted Interventions for Proficiency in Science (TIPS) project, an online resource to help teachers prepare students for success on the science CRTs and HSPE.⁴

SNRPDP provides professional development services to approximately 70% of Nevada's K-12 classroom teachers and administrators, including more than 8000 unique teachers each year. The program offers professional development that focuses on the content teachers teach and effective instructional strategies, as well as classroom-ready resources that are aligned to Nevada's content standards. Many of these offerings provide the teachers graduate-level credit in partnership with UNLV.

NSSTA, SNMC, and SNSTA are organizations dedicated to serving the needs of mathematics and science teachers throughout Nevada. With a total of more than 300 members, these organizations provide leadership in the areas of mathematics and science education.

(7) Alignment of PD with Nevada State Content and Performance Standards

This project explicitly incorporates Nevada's mathematics and science standards into its

⁴ Southern Nevada Regional Professional Development Program. (2007). TIPS: Targeted interventions for proficiency in science [high school version]. Retrieved October 15, 2007, from http://rpd.net/sciencetips_v2/

leadership model. The connection between the standards, results of the HSPEs, and the content needs of teachers in their counties will be one of the main foci of the SLAs, fall reflection and planning courses, and MYAs. The mathematics and science standards are designed to improve the academic achievement of Nevada’s students in these content areas. By using the mathematics and science standards, along with their associated guidance documents (e.g., benchmarks, achievement indicators, and test item specifications) and resources (e.g., the SNRPDP TIPS website), project activities will meet the needs of the cadre and state teachers.

(8) Research Base to Support Project

Johnson and Donaldson⁵ state that “second-stage teachers” – those with 4-10 years teaching experience – are well-suited to become teacher-leaders. Their desire to move beyond the walls of their own classrooms, combined with an increased confidence in their teaching, makes them ideal candidates for teacher-leader programs. By providing these teachers opportunities for continued professional growth, this project will improve teacher retention during this critical time. Although many have no formal leadership designation, teacher-leaders frequently play a critical role in their school’s management⁶, and therefore, have a significant impact on the fellow teachers and student achievement.

The development of teacher-leaders in this project will be guided by the use of best practices in professional development and recommendations from national reform documents.^{7,8,9} Such best practices and recommendations will be part of the design in the SLA

⁵ Johnson, S. M., & Donaldson, M. L. (2007). Overcoming the obstacles to leadership. *Educational Leadership*, 65(1), 8-13.

⁶ Spillane, J. P., Camburn, E., & Lewis, G. (2006). Taking a distributed perspective in studying school leadership and management: Epistemological and methodological trade-offs. Paper presented at the Annual Meeting of the American Education Research Association, San Francisco, California.

⁷ Loucks-Horsley, S., Love, N., Stiles, K., Mundy, S., & Hewson, P. W. (2003). *Designing professional development for teachers of science and mathematics* (2nd ed.). Thousand Oaks, CA: Corwin Press, Inc.

⁸ National Council of Teachers of Mathematics. (2000). *Principles and standards for school mathematics*. Reston, VA: NCTM.

offerings as well as for the professional development opportunities they create and provide to their colleagues.

Increasing student achievement on the HSPEs in mathematics and science requires the teacher to develop and deepen student understanding of important mathematical and scientific ideas. In essence, an appreciable content knowledge possessed by a teacher in her subjects is an essential element of her ability to teach that content to her students. Recent research has focused on five content-specific domains that encompass a teacher's content knowledge and her capability to provide effective student instruction: (1) knowledge of disciplinary mathematics and science content (i.e., the content knowledge possessed by mathematicians and scientists), (2) knowledge of student thinking about mathematics and science content, (3) knowledge of instructional strategies for teaching mathematics and science content, (4) knowledge of mathematics and science content as addressed (e.g., sequenced, connected) in curriculum, and (5) knowledge of applications of mathematics and science content (i.e., how technicians, such as health care professionals and engineers, use mathematics and science content).¹⁰ This project will focus on domains 1, 2, and 4 in particular, with domains 3 and 5 addressed as needed.

G. Evaluation and Accountability Plan

The project leadership team is committed to conducting a research-based, systematic, and high-quality evaluation in order to determine the extent to which the program goal and objectives are being met. As a means of measuring project success, elements described by the following evaluation matrix will be used throughout the three-year program (Table 5). An *evaluation matrix* is a compact representation of the objectives, activities, evaluation procedures (data

⁹ National Research Council. (1996). National science education standards. Washington, DC: National Academy Press.

¹⁰ Weiss, I. R., & Miller, B. (2006). Deepening teacher content knowledge for teaching: A review of the evidence. Paper presented at the Second MSP Evaluation Summit.

collection and analysis strategies), and indicators of success which can be used to guide the project’s evaluators in their efforts.¹¹

Table 5. Project Evaluation Matrix

No.	Objective	Activity	Data collection instrument	Measurable outcome— indicator of success
1	Create a cadre of teacher-leaders with an increased knowledge and use of (a) mathematics and science content, (b) state standards and related supporting documents, and (c) best-practices in professional development	SLAs, online content courses, online reflection and sharing sessions, and MYAs	Qualitative, inductive analysis of session artifacts [†]	Analysis of artifacts shows evolution of responses toward desired knowledge (i.e., items a, b, and c at left) in > 80% of participants
2	Offer high-quality professional development for Nevada teachers	Spring content courses taught by cadre members	Course rosters	Course completion by 600-700 teachers over three-year project
2a	Stimulate intellectual growth and upgrade the content knowledge and skills of mathematics and science teachers throughout Nevada, including rural areas		Course-specific pre-and post-test content surveys	t-test shows statistically significant pre- to post-test gains at the $p < .05$ level
2b	Help teachers to effectively use state standards, benchmarks, achievement indicators, and item specifications		Standards implementation survey [‡]	t-test shows statistically significant pre- to post-test gains at the $p < .05$ level
2c	Better prepare Nevada’s students for the mathematics and science HSPEs		HSPE scores	t-test shows statistically significant pre- to post-test gains at the $p < .05$ level for classes of participating teachers after completion of content courses

[†]Examples of artifacts that will be examined include pre- and post reflective essays that ask cadre-members, “What do you know of standards, benchmarks, achievement indicators, etc., and how do you use these in planning to teach?” Another example is in-class group work conducted at the SLAs.

[‡]Standards implementation survey will be a Likert-style instrument developed in part from research on use of standards and in part from responses from the cadre-members.

¹¹ Bailey, J. M., & Slater, T. F. (2005). Finding the forest amid the trees: Tools for evaluating astronomy education and public outreach projects. *Astronomy Education Review*, 3(3), 47-60. Retrieved March 4, 2005, from <http://aer.noao.edu/cgi-bin/article.pl?id=120>.

Additionally, to assess participant reactions, *RPDP Activity Evaluation Forms* will be administered to the cadre members at the SLA and to teachers who take professional development courses from cadre members. These forms provide formative feedback on the quality of the professional development, with uniform questions among all the Nevada RPDPs. Cadre members will also be asked to formatively evaluate the program during the MYAs each spring, allowing the PD/PI to make corrections to the project plan so that the needs of the cadre, as well as Nevada teachers and students, are all being met.

All of these data (i.e., data collected through the mechanisms listed in Table 5 and through the *RPDP Activity Evaluation Forms*) will be collected and analyzed by the PD/PI and Co-Is. This analysis, with discussions and recommendations for next year’s activities, will be reported to the State Department of Education in an annual evaluation report.

H. Budget

Partnership Funding Request

Program Title: The Nevada Math and Science Leadership Cadre

Direct Cost Requested for Partnership	YR 1	YR 2	YR3	TOTAL
1. Salaries & Wages (Professional and Clerical)	\$3,600	\$3,744	\$3,894	\$11,238
2. Employee Benefits	\$1,008	\$1,048	\$1,090	\$3,147
3. Travel In State	\$5,400	\$5,400	\$5,400	\$16,200
4. Travel Out of State	0	0	0	0
5. Materials and Supplies	\$26,500	\$26,500	\$26,500	\$79,500
6. Consultants and Contracts	\$24,091	\$24,815	\$25,568	\$74,474
7. Teacher Stipends	\$60,000	\$60,000	\$60,000	\$180,000
8. Equipment (Purchase)	0	0	0	0
9. Other (Equipment rental, printing, etc.)	\$28,120	\$28,120	\$28,120	\$84,360
10. Indirect Costs	\$4,462	\$4,450	\$4,099	\$13,011
Total	\$153,181	\$154,077	\$154,671	\$461,929

Project Cost Share Provided By All Partners

Direct Cost Provided by Partnership	YR 1	YR 2	YR3	TOTAL
1. Salaries & Wages (Professional and Clerical)	0	0	0	0
2. Employee Benefits	0	0	0	0
3. Travel In State	0	0	0	0
4. Travel Out of State	0	0	0	0
5. Materials and Supplies	0	0	0	0
6. Consultants and Contracts	0	0	0	0
7. Teacher Stipends	\$92,220	\$92,220	\$92,220	\$276,660
8. Equipment (Purchase)	0	0	0	0
9. Other (Equipment rental, printing, etc.)	\$1,700	\$1,700	\$1,700	\$5,100
Total	\$93,920	\$93,920	\$93,920	\$281,760

I. Budget Narrative

Salaries and Wages: LCSD will serve as the project’s fiscal agent. LCSD salaries necessary to support the project are for secretarial support to ensure that project accounts are accurate and that payments are timely. Annual salary costs were calculated using a \$30/hour rate at 10 hours per month over a 12-month annual cycle, which is equal to \$3,600 in Year 1. Employee benefits are 28% of salary costs, or \$1,008. Salary and benefit costs are assumed to incur cost-of-living increases of 4% per year in Years 2 and 3.

Travel In State: Travel costs will be incurred by partners/Co-Is traveling to the SLA. Travel costs were estimated at \$600 per person for transportation to and lodging during the three-day SLA. With five partners/Co-Is, and two additional partners, SLA travel costs were calculated to be \$4,200 per year. Travel costs will also be incurred for two of the partner/Co-Is (i.e., those not in Southern Nevada) to attend the MYA at the Southern Nevada Math and Science Conference. Again, transportation and lodging costs were estimated at \$600 per person for a MYA total of \$1,200 per year. The grand total of in-state travel costs are \$5,400 per year. There will be no out-of-state travel costs incurred by the project.

Materials and Supplies: Materials and supplies will be need for the SLA and MYA, including books related to teacher leadership, handouts, and workshop related supplies. Materials and supply costs for the SLA are estimated at \$7,500 per year and for the MYA at \$1,000 per year. To maintain the cadre website, LCSD will incur materials and supply costs, primarily for updating software, of \$1,000 per year. Cadre teachers will incur materials and supply costs for instructional materials and supplies needed to run their spring courses. Each teacher will be budgeted \$500 per year for materials and supplies; with 34 cadre teachers, the spring course supply costs will be \$17,000. The total cost of project materials and supplies is \$26,500 per year.

Consultants and Contracts: Because LCSD is the fiscal agent for the project, compensation for the UNLV PD/PI and UNR partner/Co-I are listed as part of the consultant and contract costs. UNLV and UNR will invoice LCSD for their total costs (see Appendix for details of partner costs). For the SLA, Drs. Bailey and Keppelmann will be paid stipends of \$2,500 and \$2,000, respectively. For these summer stipends, employee benefit costs are 14% of the stipend, equaling \$350 and \$280 for Drs. Bailey and Keppelmann, respectively. The IDC is 7.5% for each institution, making the total cost for supporting the SLA equal to \$5,515. As instructor for the online reflective and planning course occurring in the fall, Dr. Bailey will receive a course buyout of \$7,140, which is equal to 12.5% of her annual salary of \$57,120. With a school year

rate for benefits of 28%, and an IDC of 7.5%, the total buyout cost is \$9,825 per year. Dr. Keppelmann will receive a stipend of \$2,000 to support Dr. Bailey, with a total cost of \$2,752 per year when 28% benefit cost and 7.5% IDC is added in. In Years 2 and 3, contract costs of Drs. Bailey and Keppelmann are assumed to increase 4% per year due to cost-of-living. Consultant costs will also be incurred for the support provided by WestEd. To support the SLA and cadre in planning and providing expert speakers, WestEd will receive \$6,000 per year. WestEd consultants will cover their own travel costs. The total consultant and contract costs will be \$24,091 in Year 1.

Teacher Stipends: Cadre members will receive stipends of \$1,000 and \$750 for participation in and travel expenses incurred to attend each SLA and MYA, respectively. Also for each SLA, the five leadership team members who are currently teachers will each receive a \$1,000 stipend. In support of the project and future sustainability, professional organization partners SNMC, SNSTA, and NSSTA will cost-share \$3,000, \$1,000, and \$500 per year, respectively, for teacher stipends to attend the SLA. Additionally, cadre teachers will each receive a \$2,580 stipend for teaching their three-credit graduate-level content course each spring, a rate equivalent to that provided by UNLV for adjunct faculty. This cost will be completely cost-shared by SNRPDP, an amount equal to \$87,720 per year. Subtracting the significant cost sharing by project partners of \$92,220 per year, the total cost of teacher stipends to the project will be \$60,000 per year.

Other: Other costs include facility rental for the SLA, estimated at \$5,000. Also included are UNLV-RPDP graduate credit fees of \$45 per credit, with four UNLV-RPDP graduate credits received by each of the 34 cadre members, for a total fee of \$6,120. Each of the cadre members will receive up to \$500 to enroll in an online content course during the fall, for a total cost of \$17,000. The SNMC and NSSTA will cost share by providing \$1,700 per year to pay the registration costs for each cadre member to attend the Southern Nevada Mathematics and Science Regional Conference. This fee also includes annual membership in these organizations. Therefore, the total cost of facility rental, UNLV-RPDP graduate credit fees, and online course minus the cost-share of conference registration is \$28,120 per year. No equipment costs are anticipated with the project.

Indirect and Total Costs: LCSD's IDC rate is 3%. This rate was applied to all costs, with the exception of the UNLV subcontract. For the UNLV subcontract, 3% IDC was applied to only the first \$25,000, per federal regulations protecting against double charges. IDC costs for Year 1, 2, and 3 were calculated to be \$4,462, \$4,450, and \$4,099, respectively. The annual costs requested for the partnership would be \$153,181, \$154,077, and \$154,671, for a total over the three-year life of the project being \$461,929.

Requested costs are only 62% of the total project costs (\$743,689) because 38% of the project costs are being shared by the partners, showing significant commitment by the partners and high probability of a sustainable teacher-leader cadre. It should also be noted that Mr. Lombardi and Ms. Hepworth, partner/Co-Is, will be spending a significant amount of time to coordinate the spring courses given by the cadre members. This task will be part of their normal duties as SNRPDP trainers, but still represents a significant commitment to the project.

J. Appendices

1. Partnership Identification Forms
 - a. University of Nevada, Las Vegas
 - b. University of Nevada, Reno
 - c. Lincoln County School District
 - d. Southern Nevada Regional Professional Development Program
 - e. Nevada State Science Teachers Association
 - f. Southern Nevada Mathematics Council
 - g. Southern Nevada Science Teachers Association

2. Partner Funding Requests
 - a. University of Nevada, Las Vegas
 - b. University of Nevada, Reno
 - c. Lincoln County School District
 - d. Southern Nevada Regional Professional Development Program
 - e. Nevada State Science Teachers Association
 - f. Southern Nevada Mathematics Council
 - g. Southern Nevada Science Teachers Association

3. Letters of Commitment
 - a. University of Nevada, Las Vegas
 - b. University of Nevada, Reno
 - c. Lincoln County School District
 - d. Southern Nevada Regional Professional Development Program
 - e. Nevada State Science Teachers Association
 - f. Southern Nevada Mathematics Council
 - g. Southern Nevada Science Teachers Association

Partner Identification Form

Include a Partnership Identification Form for each of the partner institutions/organizations.

PARTNER INSTITUTION: University of Nevada, Las Vegas

Primary Contact

Name: Dr. Janelle M. Bailey

Title: Assistant Professor of Science Education

Address: UNLV Department of Curriculum & Instruction

4505 S. Maryland Parkway, Box 453005

Las Vegas, NV 89154-3005

Telephone: 702-895-4756 **Fax:** 702-895-4898

E- Mail: janelle.bailey@unlv.edu

Type of Institution/Organization: Institution of Higher Education, Teacher Training Department

Partner Identification Form

Include a Partnership Identification Form for each of the partner institutions/organizations.

PARTNER INSTITUTION: University of Nevada, Reno

Primary Contact

Name: Dr. Edward Keppelmann

Title: Associate Professor of Mathematics
College of Science Director of Outreach

Address: UNR Department of Mathematics & Statistics

Ansari Business Building, 601, Mail Stop 084

Reno, NV 89557-0084

Telephone: 775-784-4445 **Fax:** 775-784-6378

E- Mail: keppelma@unr.edu

Type of Institution/Organization: Institution of Higher Education, Mathematics
Department

Partner Identification Form

Include a Partnership Identification Form for each of the partner institutions/organizations.

PARTNER INSTITUTION: Lincoln County School District

Primary Contact

Name: Clark "Rick" Hardy

Title: Superintendent

Address: Lincoln County School District

P. O. Box 118

Panaca, NV 89042

Telephone: 775-728-4471 **Fax:** 775-728-4435

E- Mail: rickh@nsn.k12.nv.us

Type of Institution/Organization: Local Education Agency

Partner Identification Form

Include a Partnership Identification Form for each of the partner institutions/organizations.

PARTNER INSTITUTION: Southern Nevada Regional Professional Development Program

Primary Contact

Name: Doug Lombardi

Title: Regional Trainer for K-12 Science Education and Program Evaluation

Address: 515 W. Cheyenne, Suite C

North Las Vegas, NV 89030

Telephone: 702-799-3835 x258 **Fax:** 702-799-3821

E- Mail: dalombardi@interact.ccsd.net

Type of Institution/Organization: Nonprofit Organization

Partner Identification Form

Include a Partnership Identification Form for each of the partner institutions/organizations.

PARTNER INSTITUTION: Nevada State Science Teachers Association

Primary Contact

Name: Jenelle Hopkins

Title: President, NSSTA

Address: c/o Centennial High School

10200 Centennial Pkwy

Las Vegas, NV 89149

Telephone: 702-799-3440 **Fax:** 702-799-3443

E- Mail: jhopkins@interact.ccsd.net

Type of Institution/Organization: Nonprofit Organization

Partner Identification Form

Include a Partnership Identification Form for each of the partner institutions/organizations.

PARTNER INSTITUTION: Southern Nevada Mathematics Council

Primary Contact

Name: Derek Fialkiewicz

Title: President, SNMC

Address: c/o Southern Nevada Regional Professional Development Program

515 W. Cheyenne, Suite D

North Las Vegas, NV 89030

Telephone: 702-799-3835 **Fax:** 702-799-3821

E- Mail: defialki@interact.ccsd.net

Type of Institution/Organization: Nonprofit Organization

Partner Identification Form

Include a Partnership Identification Form for each of the partner institutions/organizations.

PARTNER INSTITUTION: Southern Nevada Science Teachers Association

Primary Contact

Name: Sheila Siino

Title: President, SNSTA

Address: c/o John Dooley Elementary School

1940 Chickasaw Drive

Henderson, NV 89002

Telephone: 702-799-8060 **Fax:** 702-799-8076

E- Mail: ssiino@interact.ccsd.net

Type of Institution/Organization: Nonprofit Organization

Partner Funding Request

Name of Partner Organization: University of Nevada, Las Vegas

This is only the funding that UNLV will receive from the grant.

A. Direct Cost Requested for Partner	YR 1	YR 2	YR 3	TOTAL
1. Salaries & Wages (Professional and Clerical)	\$9,640	\$10,026	\$10,427	\$30,092
2. Employee Benefits	\$2,349	\$2,443	\$2,541	\$7,333
3. Travel In State	0	0	0	0
4. Travel Out of State	0	0	0	0
5. Materials and Supplies	0	0	0	0
6. Consultants and Contracts	0	0	0	0
7. Teacher Stipends	0	0	0	0
8. Equipment (Purchase)	0	0	0	0
9. Other (Equipment rental, printing, etc.)	0	0	0	0
B. Indirect Costs Requested by this Partner	\$899	\$935	\$973	\$2,807
Total Funding to Partner From Grant	\$12,888	\$13,404	\$13,940	\$40,232

Partner Contribution to Partnership

A. Direct Cost Contributed by Partner:	YR 1	YR 2	YR 3	TOTAL
1. Salaries & Wages (Professional and Clerical)	0	0	0	0
2. Employee Benefits	0	0	0	0
3. Travel In State	0	0	0	0
4. Travel Out of State	0	0	0	0
5. Materials and Supplies	0	0	0	0
6. Consultants and Contracts	0	0	0	0
7. Teacher Stipends	0	0	0	0
8. Equipment (Purchase)	0	0	0	0
9. Other (Equipment rental, printing, etc.)	0	0	0	0
Total Cost Provided by Partner	0	0	0	0

Salary costs for Dr. Bailey include a \$2,500 stipend for the summer SLA and instructor salary for the online reflective and planning course occurring in the fall. For the fall, Dr. Bailey would receive a course buyout salary of \$7,140, which is equal to 12.5% of her annual salary of

\$57,120. The total salary cost for Year 1 is \$9,640. In Years 2 and 3, salary costs are assumed to increase by 4% per year due to cost-of-living adjustments.

For the summer stipend, benefits costs are \$350, which is 14% of the stipend. For the course buyout salary, benefit costs are \$1,999, which is 28% of the course buyout costs. The total employee benefit cost for Year 1 is \$2,349, with Year 2 and 3 benefit costs assumed to increase by 4% per year due to cost-of-living adjustments.

Indirect costs (IDC) are 7.5% of the salary and benefit costs equaling \$899, \$935, and \$973 for Years 1, 2, and 3, respectively. The total cost requested by UNLV is \$12,888, \$13,404, and \$13,940 for Years 1, 2, and 3 respectively, with a total cost over the 3-year life of the project equal to \$40,232.

Partner Funding Request

Name of Partner Organization: University of Nevada, Reno

This is only the funding that UNR will receive from the grant.

A. Direct Cost Requested for Partner	YR 1	YR 2	YR 3	TOTAL
1. Salaries & Wages (Professional and Clerical)	\$4,000	\$4,160	\$4,326	\$12,486
2. Employee Benefits	\$840	\$874	\$909	\$2,622
3. Travel In State	0	0	0	0
4. Travel Out of State	0	0	0	0
5. Materials and Supplies	0	0	0	0
6. Consultants and Contracts	0	0	0	0
7. Teacher Stipends	0	0	0	0
8. Equipment (Purchase)	0	0	0	0
9. Other (Equipment rental, printing, etc.)	0	0	0	0
B. Indirect Costs Requested by this Partner	\$363	\$378	\$393	\$1,133
Total Funding to Partner From Grant	\$5,203	\$5,411	\$5,628	\$16,242

Partner Contribution to Partnership

A. Direct Cost Contributed by Partner:	YR 1	YR 2	YR 3	TOTAL
1. Salaries & Wages (Professional and Clerical)	0	0	0	0
2. Employee Benefits	0	0	0	0
3. Travel In State	0	0	0	0
4. Travel Out of State	0	0	0	0
5. Materials and Supplies	0	0	0	0
6. Consultants and Contracts	0	0	0	0
7. Teacher Stipends	0	0	0	0
8. Equipment (Purchase)	0	0	0	0
9. Other (Equipment rental, printing, etc.)	0	0	0	0
Total Cost Provided by Partner	0	0	0	0

Salary costs for Dr. Keppelmann include \$4,000 per year in stipends, \$2,000 each for the SLA and for providing assistance to Dr. Bailey during the fall online reflective and planning course.

In Years 2 and 3, salary costs are assumed to increase by 4% per year due to cost-of-living adjustments.

For the summer stipend, benefits costs are \$280, which is 14% of the stipend. For the fall stipend, benefit costs are \$560, which is 28% of the stipend. The total employee benefit cost for Year 1 is \$840, with Year 2 and 3 benefit costs assumed to increase by 4% per year due to cost-of-living adjustments.

Indirect costs (IDC) are 7.5% of the salary and benefit costs equaling \$363, \$378, and \$393 for Years 1, 2, and 3, respectively. The total cost requested by UNR is \$5,203, \$5,411, and \$5,628 for Years 1, 2, and 3 respectively, with a total cost over the 3-year life of the project equal to \$16,242.

Partner Funding Request

Name of Partner Organization: Lincoln County School District

This is only the funding the LCSD will receive from the grant.

A. Direct Cost Requested for Partner	YR 1	YR 2	YR 3	TOTAL
1. Salaries & Wages (Professional and Clerical)	\$3,600	\$3,744	\$3,894	\$11,238
2. Employee Benefits	\$1,008	\$1,048	\$1,090	\$3,147
3. Travel In State	\$5,400	\$5,400	\$5,400	\$16,200
4. Travel Out of State	0	0	0	0
5. Materials and Supplies	\$26,500	\$26,500	\$26,500	\$79,500
6. Consultants and Contracts	\$6,000	\$6,000	\$6,000	\$18,000
7. Teacher Stipends	\$60,000	\$60,000	\$60,000	\$180,000
8. Equipment (Purchase)	0	0	0	0
9. Other (Equipment rental, printing, etc.)	\$28,120	\$28,120	\$28,120	\$84,360
B. Indirect Costs Requested by this Partner	\$4,462	\$4,450	\$4,099	\$13,011
Total Funding to Partner From Grant	\$135,090	\$135,262	\$135,103	\$405,455

Partner Contribution to Partnership

A. Direct Cost Contributed by Partner:	YR 1	YR 2	YR 3	TOTAL
1. Salaries & Wages (Professional and Clerical)	0	0	0	0
2. Employee Benefits	0	0	0	0
3. Travel In State	0	0	0	0
4. Travel Out of State	0	0	0	0
5. Materials and Supplies	0	0	0	0
6. Consultants and Contracts	0	0	0	0
7. Teacher Stipends	0	0	0	0
8. Equipment (Purchase)	0	0	0	0
9. Other (Equipment rental, printing, etc.)	0	0	0	0
Total Cost Provided by Partner	0	0	0	0

Because LCSD is acting as the project's fiscal agent, all of these costs are discussed in the main part of the proposal (Section I: *Budget Narrative*), with the exception of consultant and contract costs. In these

tables, consultant and contract costs show only the \$6,000 that will be charged by WestEd. Subcontract costs from UNLV and UNR are not shown in this table, but are detailed earlier in this Appendix.

Note that IDC costs are lower in Years 2 and 3 than in Year 1. For the UNLV subcontract, 3% IDC was applied to only the first \$25,000, per federal regulations protecting against double charges. The first \$25,000 is consumed by the UNLV subcontract near the end of Year 2.

Partner Funding Request

Name of Partner Organization: Southern Nevada Regional Professional Development Program

This is the funding contributed by SNRPDP to the project.

A. Direct Cost Requested for Partner	YR 1	YR 2	YR 3	TOTAL
1. Salaries & Wages (Professional and Clerical)	0	0	0	0
2. Employee Benefits	0	0	0	0
3. Travel In State	0	0	0	0
4. Travel Out of State	0	0	0	0
5. Materials and Supplies	0	0	0	0
6. Consultants and Contracts	0	0	0	0
7. Teacher Stipends	0	0	0	0
8. Equipment (Purchase)	0	0	0	0
9. Other (Equipment rental, printing, etc.)	0	0	0	0
B. Indirect Costs Requested by this Partner	0	0	0	0
Total Funding to Partner From Grant	0	0	0	0

Partner Contribution to Partnership

A. Direct Cost Contributed by Partner:	YR 1	YR 2	YR 3	TOTAL
1. Salaries & Wages (Professional and Clerical)	0	0	0	0
2. Employee Benefits	0	0	0	0
3. Travel In State	0	0	0	0
4. Travel Out of State	0	0	0	0
5. Materials and Supplies	0	0	0	0
6. Consultants and Contracts	0	0	0	0
7. Teacher Stipends	\$87,720	\$87,720	\$87,720	\$263,160
8. Equipment (Purchase)	0	0	0	0
9. Other (Equipment rental, printing, etc.)	0	0	0	0
Total Cost Provided by Partner	\$87,720	\$87,720	\$87,720	\$263,160

If funded, SNRPDP will be fully committed to this project. Cadre teachers will receive \$2,580 stipend for teaching their three-credit graduate-level content course each spring, a rate equivalent to that provided by UNLV for adjunct faculty. This cost will be completely cost-shared by

SNRPDP, an amount equal to \$87,720 per year (\$263,160 total for the 3-year period of the project).

Mr. Lombardi and Ms. Hepworth, partner/Co-Is will be spending a significant amount of time to coordinate the spring courses given by the cadre members. This task will be part of their normal duties as SNRPDP trainers, and is therefore, not included in this proposal.

Partner Funding Request

Name of Partner Organization: Nevada State Science Teachers Association

This is the funding contributed by NSSTA to the project.

A. Direct Cost Requested for Partner	YR 1	YR 2	YR 3	TOTAL
1. Salaries & Wages (Professional and Clerical)	0	0	0	0
2. Employee Benefits	0	0	0	0
3. Travel In State	0	0	0	0
4. Travel Out of State	0	0	0	0
5. Materials and Supplies	0	0	0	0
6. Consultants and Contracts	0	0	0	0
7. Teacher Stipends	0	0	0	0
8. Equipment (Purchase)	0	0	0	0
9. Other (Equipment rental, printing, etc.)	0	0	0	0
B. Indirect Costs Requested by this Partner	0	0	0	0
Total Funding to Partner From Grant	0	0	0	0

Partner Contribution to Partnership

A. Direct Cost Contributed by Partner:	YR 1	YR 2	YR 3	TOTAL
1. Salaries & Wages (Professional and Clerical)	0	0	0	0
2. Employee Benefits	0	0	0	0
3. Travel In State	0	0	0	0
4. Travel Out of State	0	0	0	0
5. Materials and Supplies	0	0	0	0
6. Consultants and Contracts	0	0	0	0
7. Teacher Stipends	\$500	\$500	\$500	\$1,500
8. Equipment (Purchase)	0	0	0	0
9. Other (Equipment rental, printing, etc.)	0	0	0	0
Total Cost Provided by Partner	\$500	\$500	\$500	\$1,500

NSSTA will contribute \$500 per year, for a total of \$1,500, to provide teacher stipends and help ensure sustainability of the cadre.

Partner Funding Request

Name of Partner Organization: Southern Nevada Mathematics Council

This is the funding contributed by SNMC to the project.

A. Direct Cost Requested for Partner	YR 1	YR 2	YR 3	TOTAL
1. Salaries & Wages (Professional and Clerical)	0	0	0	0
2. Employee Benefits	0	0	0	0
3. Travel In State	0	0	0	0
4. Travel Out of State	0	0	0	0
5. Materials and Supplies	0	0	0	0
6. Consultants and Contracts	0	0	0	0
7. Teacher Stipends	0	0	0	0
8. Equipment (Purchase)	0	0	0	0
9. Other (Equipment rental, printing, etc.)	0	0	0	0
B. Indirect Costs Requested by this Partner	0	0	0	0
Total Funding to Partner From Grant	0	0	0	0

Partner Contribution to Partnership

A. Direct Cost Contributed by Partner:	YR 1	YR 2	YR 3	TOTAL
1. Salaries & Wages (Professional and Clerical)	0	0	0	0
2. Employee Benefits	0	0	0	0
3. Travel In State	0	0	0	0
4. Travel Out of State	0	0	0	0
5. Materials and Supplies	0	0	0	0
6. Consultants and Contracts	0	0	0	0
7. Teacher Stipends	\$3,000	\$3,000	\$3,000	\$9,000
8. Equipment (Purchase)	0	0	0	0
9. Other (Equipment rental, printing, etc.)	\$850	\$850	\$850	\$2,550
Total Cost Provided by Partner	\$3,850	\$3,850	\$3,850	\$11,550

SNMC will contribute \$3,000 per year, for a total of \$9,000, to provide teacher stipends and help ensure sustainability of the cadre. SNMC will also contribute \$850 per year (\$2,550 total) to cover 17 registrations for the mathematics teachers of the cadre. These registrations are for the annual Southern Nevada Mathematics and Science Conference.

Partner Funding Request

Name of Partner Organization: Southern Nevada Science Teachers Association

This is the funding contributed by SNSTA to the project.

A. Direct Cost Requested for Partner	YR 1	YR 2	YR 3	TOTAL
1. Salaries & Wages (Professional and Clerical)	0	0	0	0
2. Employee Benefits	0	0	0	0
3. Travel In State	0	0	0	0
4. Travel Out of State	0	0	0	0
5. Materials and Supplies	0	0	0	0
6. Consultants and Contracts	0	0	0	0
7. Teacher Stipends	0	0	0	0
8. Equipment (Purchase)	0	0	0	0
9. Other (Equipment rental, printing, etc.)	0	0	0	0
B. Indirect Costs Requested by this Partner	0	0	0	0
Total Funding to Partner From Grant	0	0	0	0

Partner Contribution to Partnership

A. Direct Cost Contributed by Partner:	YR 1	YR 2	YR 3	TOTAL
1. Salaries & Wages (Professional and Clerical)	0	0	0	0
2. Employee Benefits	0	0	0	0
3. Travel In State	0	0	0	0
4. Travel Out of State	0	0	0	0
5. Materials and Supplies	0	0	0	0
6. Consultants and Contracts	0	0	0	0
7. Teacher Stipends	\$1,000	\$1,000	\$1,000	\$3,000
8. Equipment (Purchase)	0	0	0	0
9. Other (Equipment rental, printing, etc.)	\$850	\$850	\$850	\$2,550
Total Cost Provided by Partner	\$1,850	\$1,850	\$1,850	\$5,550

SNSTA will contribute \$1,000 per year, for a total of \$3,000, to provide teacher stipends and help ensure sustainability of the cadre. SNSTA will also contribute \$850 per year (\$2,550 total) to cover 17 registrations for the science teachers of the cadre. These registrations are for the annual Southern Nevada Mathematics and Science Conference.