Carson City School District

Great Teaching and Leading Fund Final Annual Report FY17

Pursuant to NRS 391A.510, an entity that receives a grant of money from the GTL Fund shall provide a report within 120 days after the conclusion of the grant to the Superintendent of Public Instruction in the form prescribed by the Superintendent that includes, without limitation, a description of:

a) The programs for which the grant of money was used.

b) The effectiveness of the grant of money in:

1) *Improving the achievement of pupils;*
2) *Assisting teachers, administrators and other licensed educational personnel; and*
3) *Improving the recruitment, selection and retention of effective teachers and principals*

Summary

a. Program Name & Overall Goals/Objectives of Program

Name: CCSD Nevada Academic Content Standards (NVACS) For Science Elementary Project: Phase 2-lmplementation

Overall goals/objectives of the program:

- At least 70 K-5 teachers will participate in 30 hours of professional development related to the use of science curriculum maps, learning targets, learning guides, measurable instructional units and common assessments developed for the NVACS for science.
- At least 50 teachers will participate in 30 additional hours of professional development related to the refinement and implementation of the NVACS for science curriculum, instruction and assessment.
- By June 30, 2017, at least 70% of all Carson City K-5 teachers will complete the training needed to successfully implement the NVACS for science in their classrooms.
- At least 800 students will take common unit assessments to measure their mastery of the NVACS for science.
- By June 30, 2017, data will show that at least 60% of students assessed mastered the NVACS for science.

b. Abstract and Results Overview

CCSD met 82% of the objectives for our 2016/17 GTLF grant. The following table demonstrates the progress we have made:

2016/17 CCSD NVACS For Science Elementary Project Phase 2 Objectives

Objective	Status
59 K-5 teachers in Cohort 1 will participate in 30 additional hours of ongoing professional development in science curriculum, instructional units and assessments.	Complete
6 STEM coaches will participate in at least 60 hours of training related to the NVACS for science and teacher leadership.	Complete
At least 90% of the K-5 elementary teachers from Cohort 1 will implement the science curriculum maps, learning targets, learning guides, MIUs, common unit assessments, and science materials developed during Phase 1 of the project.	Complete
The 59 K-5 teachers in Cohort 1 will administer the common unit assessments developed for this project to at least 800 students in grades K-5 and upload this data into MasteryConnect.	Complete
At least 80% of the teachers in Cohort 1 will demonstrate their knowledge of the NVACS for science, and be confident in their ability to implement integration via STEM, as measured by a pre/post implementation survey.	Complete
Utilizing a focus group format, at least 80% of elementary administrators will report that the quality of science instruction observed in Cohort 1 classrooms exceeded that of other classrooms where the teacher had not participated in the CCSD NVACS Science Project.	Complete
At least 70 K-5 teaches from Cohort 2 will complete 30 hours of professional development on the use of the science curriculum maps, learning targets, learning guides, MIUs, common unit assessments and science materials.	Complete
At least 70% of all Carson City K-5 teachers (to include core, ESL, and Special Education) will complete the required training for the CCSD NVACS for Science Elementary Project.	Complete
Data collected via the K-5 science assessments in MasteryConnect will show that at least 60% of the students mastered the NVACS for their grade level.	Partially Completed*
District policies and procedures for use of learning guides and assessments and for administration of assessments and use of assessment results will be disseminated to all stakeholders.	Complete
A communication plan for District implementation of the NVACS for science will be disseminated to administrators, parents, and the larger Carson City Community.	Partially Completed**

*Not all teachers that piloted the assessments uploaded their data into MasteryConnect, and we were not able to measure this objective. Therefore, this goal was included in the FY18 and FY 19 projects (see Goals 10 & 11 included in Section c).

**The Communication Plan was written and partially implemented. Therefore, this goal was included in the FY18 and FY 19 projects (See Goal 12 included in Section c).

c. Next Steps

Over the last biennium, utilizing Great Teaching and Leading Grants, the Carson City School District (CCSD) implemented the first two phases of this project: 1) A cadre of STEM Coaches (teacher leaders) were identified and trained; 2) A system for curriculum, instruction and benchmark assessments was developed for the K-5 Nevada Academic Content Standards for Science based on the Learner Centered Model; and 3) A team of K-5 elementary teachers representing all of our six elementary schools piloted these materials and provided feedback.

Fortunately, the Carson City School District was able to secure another two-year GTLF grant to complete the third and fourth phases of this project: 1) Full Implementation (2017/18); and 2) Refinement (2018/19). The table below details the measureable objectives for these final phases of the project.

CCSD Science: Elementary Implementation Project Phase 3 & 4 Objectives FY18-19

Objective	Timeline
6 STEM coaches will participate in at least 60 hours of ongoing training related to coaching teachers and leading the NVACS for science implementation.	By June 30, 2018 By June 30, 2019
30 K-5 teachers representing all six elementary schools will participate in 20 hours of ongoing professional development related to the refinement of the science curriculum, instructional units and assessments.	By June 30, 2018 By June 30, 2019
100% of 170 K-5 teachers (to include core, ESL, and Special Education) will complete at least 30 hours of professional development on the use of the science curriculum maps, learning targets, learning guides, Measureable Instructional Units (MIUs), common unit assessments and board-approved curriculum materials.	By June 30, 2018
100% of the K-5 (170) elementary teachers will implement the NVACS for science in their classrooms via curriculum maps, learning targets, learning guides, MIUs, common unit assessments, and board-approved curriculum materials.	• 8/17 - 6/18 • 8/18-6/19
By June of 2018, at least 80% of K-5 teachers will demonstrate their knowledge of the NVACS for science and their ability to implement these standards in their classrooms as measured by pre/post surveys.	By June 30, 2018
By June of 2019, at least 90% of K-5 teachers will demonstrate their knowledge of the NVACS for science and their ability to implement these standards in their classrooms as measured by pre/post surveys.	By June 30, 2019
Utilizing a focus group format, at least 80% of elementary administrators and STEM Coaches will report that the science instruction observed in K-5 classrooms is aligned with the NVACS.	By June 30, 2018
Utilizing a focus group format, at least 90% of elementary administrators and STEM Coaches will report that the science instruction observed in K-5 classrooms improved over 2017/18 levels.	By June 30, 2019
100% of K-5 teachers (170) will administer the science common unit assessments developed for this project to at least 3,000 students in grades K- 5 and upload this data into MasteryConnect.	• 9/17 -6/18 • 9/18 - 6/19

Objective	Timeline
Data collected via the K-5 science assessments in MasteryConnect will show that at least 60% of the students mastered the NVACS for their grade level.	By June 30, 2018
Data collected via the K-5 science assessments in MasteryConnect will show that at least 70% of student mastered the NVACS for their grade level.	By June 30, 2019
A communication plan for District implementation of the NVACS for science and math will be implemented so that all stakeholders are informed.	•By 11/17 •Updated 11/18

Grant Funded Activities

Name of Activity and Overview

The Carson City School District had one activity funded under this grant: The CCSD Nevada Academic Content Standards (NVACS) For Science Elementary Project: Phase 2- Implementation.

During the 2016-17 school year, the Carson City School District (CCSD) began implementation of the NVACS for science in K-5 classrooms and the integration of these standards with reading/language arts, math and technology.

Participant Information (who, roles, how many, demographics, etc.)

The District established two cohort teams to lead this work. These teams received specialized training on psychometrics and the design and administration of valid, reliable, and fair assessments:

- Cohort 1/The Implementation Team: The 59 teachers in Cohort 1 that were trained during 2015/16 acted as the final field test and implementation team during the fall of 2016. They utilized the instructional units and curriculum materials developed in Phase 1, keeping reflection logs as they progressed through this work. STEM Coaches who were part of the Leadership Team in Phase 1 led the ongoing professional development provided to these teachers.
- Cohort 2/The Team in Training: A second cohort of 70 teachers began their professional development in the spring of 2017. By June 30, 2017, they completed 30 hours of professional development on the use of the science curriculum maps, learning targets, learning guides, measureable instructional units, common unit assessments and science materials. In total, over 70% (127) of our K-5 core, special education and ESL teachers were trained and ready to implement the NVACS for science. The remaining 30% (43) will be trained in the fall and spring of 2017/18.

Area(s) of Effectiveness Measured

CCSD provided professional development for teachers related to the Nevada Academic Content Standards (NVACS) for Science. The following areas were measured:

- 6 STEM coaches completed 60 hours of training related to the NVACS for Science
- 59 teachers in Cohort 1 that participated in the first phase of the project (2015/16) gained an additional 30 hours of professional learning related to the curriculum, instruction and assessment for the NVACS for Science.
    - 100% of these teachers implemented the curriculum maps, learning targets, learning guides, Measureable Instructional Units (MIU), common unit

assessments, and science materials developed during Phase 1 of the project.
    - 80% of these teachers demonstrated their knowledge of the NVACS for Science and their ability to integrate STEM via a pre/post survey.
- 100% of elementary administrators who participated in a focus group for this project reported that the quality of science instruction observed in Cohort 1 classes exceeded that of other classrooms where the teachers had not participated in the project.
- An additional group of 70 teachers (Cohort 2) completed 30 hours of professional learning related to the curriculum, instruction and assessment for the NVACS for Science.
- 70% of all CCSD K-5 teachers (including core, ESL and Special Education) completed the required training for this project.
- Policies and procedures related to the use of all curriculum materials and assessments were completed.
- A communication plan for implementation of the NVACS for Science was developed.

Effectiveness Measure for Each Area, Including Rationale for Chosen Measure

Systems Approach: In order to build a system for curriculum, instruction and assessment for science, a District Leadership Team was established. Together, this team developed curriculum maps, learning targets, Learning Guides, Measurable Instructional Units (MIUs) and unit for the NVACS for Science.

Teacher Implementation Pre/Post Survey: Cohort 1 teachers completed a pre-survey in August of 2016 (baseline) and a post survey in May of 2017 to measure their knowledge of the NVACS for science and their ability to integrate ELA, Math, Engineering and Technology through real-world application into science instruction. Baseline data indicated growth from the pre- to the post-test in their knowledge of the NVACS for science. In addition, there was an increase in the ability to integrate science into other subjects.

Teacher Leader Needs Assessment: To ensure that monthly PLCs for STEM coaches were meaningful, facilitators conducted a needs assessment at the first meeting in September and used this data as a baseline to build the agendas for the remaining PLCs. At the end of the year, the needs assessment was revisited and it was determined that this professional learning improved their content knowledge and their ability to support their teachers with science instruction.

NVACS-Science Implementation: Since we have a small leadership team (12 administrators and 6 coaches) at the elementary level, we conducted a focus group with them to measure the quality of the science instruction. In the fall, administrators and STEM Coaches were asked to observe Cohort 1 and non- Cohort 1 teachers as they taught science throughout the year, comparing their implementation of the NVACS for science. They collected anecdotal data in a scripting format similar to T4S. In June, a formal focus group was held, led by the project's lead administrator, Dr. Medina. The group reported that science instruction in cohort classrooms was more aligned with the standards and at higher DOK levels. They reported that the cohort teachers appeared to be more confident in their ability to deliver science instruction and were well trained in the use of the materials and assessments provided to them. Focus groups will be repeated with Cohort 2 in 2017/18 and in 2018/19 with all elementary teachers.

Student Achievement will be measured with common unit assessments for grades K-5. These could be traditional assessments, performance tasks, labs, etc. All assessments for grades K-5

were created during 2015/16 (Phase 1), and the 59 teachers that took part in the summer boot camp field tested the assessments during the 2016/17 school year (Phase 2). This data will be the baseline for the final two phases of the project. Full implementation of the assessments will take place in 2017/18. Student data from these assessments will be tracked via MasteryConnect and analyzed to determine mastery of the NVACS by individual students, classes, grades, and sub-populations.

Implications for Future Implementation

The work that CCSD completed during 2016/17 set the stage for the final two phases of this project, also funded by GTLF: Full implementation of the Nevada Academic Content Standards (NVACS) For Science in all K-5 classrooms, and the refinement of instructional practices that will lead to improved student achievement in science. All 170 K-5 teachers will complete at least 30 hours of intensive science professional development; they will demonstrate their knowledge of the NVACS for science and their ability to implement these standards in their classrooms; and they will administer common unit assessment to at least 3,000 students. Data from these unit assessments will be tracked over a two-year period, and by June of 2019, at least 70% of K-5 students assessed will have mastered the NVACS for science.

Supporting Materials

The District Communication Plan; samples of agendas, sign-in sheets, and training materials; along with samples of curriculum and assessment materials developed via this grant are attached to this report.

Budget Summary

Narrative Overview of Use of GTL Funds Awarded

The Carson City School District received a GTLF grant award of $424,219.67. The majority of GTLF funding was used to cover the salaries and benefits of staff involved in this project. Some funds were used to pay teachers for participation in the project outside on contracted hours. A license fee for software that supports the project's assessment system was also covered via this grant; along with a small amount of funds for professional books and supplies.

Brief Description of Expenditure Categories and Description

Project Coordinator: GTLF funds supported 50% of the salary of the project coordinator, Dr. Ricky Medina. Dr. Medina was the project administrator for Phase 1 of this project, and continued in this role for Phase 2. Dr. Medina is the District's Director of Accountability and School Improvement and reports directly to the Associate Superintendent for Educational Services. He has done extensive work on the Learner-Centered Model and is an expert on the curriculum development model. The human capital he contributed to the Phase 1 of this project had a direct impact on our ability to meet the objectives. He was also directly responsible for the successful completion of Phase 2. Because of his expertise in assessment and evaluation, Dr. Medina has also played a key role in the collection and analysis of data needed for the evaluation of this project.

Science Technology Engineering and Math (STEM) Coaches: The District has identified 6 teacher leaders that participated in Phase 1 and have the content knowledge and leadership ability to ensure that this project is implemented with fidelity at each school.
Because of the integration of science with technology, engineering and math, they are called STEM Coaches. The District leveraged other grant funds in order to provide 3 of our 6 elementary schools with full-time STEM Coaches. GTLF funds covered the salaries for three additional coaches for the remaining schools. The role of the STEM Coach was to provide daily support for science curriculum, instruction and assessment for teachers at each school site. This includes daily observations of teachers, modeling of lessons, coaching, and emphasizing integration across all content areas, including technology. They also led monthly PLCs for their schools and quarterly grade-level PLCs for the District. STEM Coaches devoted 100% of their time to this project.

Extra Duty Pay was also provided to teachers who attended monthly site-level PLCs and quarterly grade-level PLCs that were held outside of contract time. In addition, stipends were provided to some teachers that attended science boot camps held on weekends and in the summer.

Books for professional development related to educational assessment were also provided to teachers.

General Supplies: A small amount of funds under paid for paper and copying of instructional materials.

Software: The license fee for MasteryConnect was also paid for via this grant. This software is the vehicle that allows our elementary schools to establish an aligned curriculum and a uniform assessment method throughout all classrooms and grade levels. Progress is measured by: 1) Common unit assessments, including performance tasks, mapped to learning targets for each

MIU; and 2) Common formative assessments mapped to learning targets to measure progress for each lesson and daily instruction. Teachers and administrators can monitor student development and mastery of learning targets, curriculum standards and overall performance. Most of our elementary students have their own laptops, so teachers can utilize this platform to provide them with instant feedback on their progress towards mastering of learning targets, as the data funnels into MasteryConnect in real time. The results provide teachers with a window into the overall skill level of each student; across all classrooms, grade levels, and content areas.

Awarded Funds vs. Unexpended Funds, Including Narrative of All Unexpended Funds

GREAT TEACHERS AND LEADERS GRANT FY2017: PROJECT# 17-248-13000

Category	Budget	Expenditures	Unexpended
Salaries: Stem Coaches: 3.29 FTE Certified Teachers on Special Assignment Project Coordinator: 50% Salary of the administrator for this project	$ 200,298.89 $ 51,627.25	$200,298.89 $51,627.25	0 0
Benefits for STEM Coaches and Project Coordinator	$113,412.06	$113,413.02	-.96
Extra Duty Pay - Monthly Site PLC's - 500 hours for monthly site-level PLCs held outside of contract time @ 6 elementary schools ($500 x $30.24)	$15, 104.88	$15, 104.88	0
Medicare, unemployment, W/C	$541.89	$541.81	.08
Extra Duty Pay - Quarterly Grade Level PLC's - 147 hours x $30.24 for grade-level PLCs held outside of contract time	$4,445.28	$4,445.28	0
Medicare, unemployment, W/C	$160.27	$160.27	0
Stipend Pay - K-5 Science Boot Camp - $500 stipends per teacher for 23 teachers to attend weekend & summer boot camps	$11,500.00	$6,000.00	$5,500.00 *
Medicare, unemployment, W/C	$420.90	$218.11	$202.79
General Supplies for 20 training sessions @ 228.88 each for copies papers etc.	$4,577.65	$3551.30	$1,026.35**
Books - 30 copies of Educational Assessment of Students book, 30 books @ $73.40 per book, plus shipping	$2,235.60	$2,235.60	0
Software License for Mastery Connect	$19,895.00	$19,895.00	0
GRAND TOTALS	***$424,219.67***	***$417,491.41***	***$6,728.26***

EXPLANATION OF UNEXPENDED FUNDS:

*Only 12 teachers attended boot camps held outside of contract time (12 X $500)

** The project did not need as many supplies as originally projected.

Attachment 1.

STEM Coach PLCAgenda December 1, 2016

Attendees: Ricky Medina, Jaci McCune, Adrienne Wiggins, Tad Williams, Robin Kato-Brong, Carolyn Cook, Rachel Croft, Tara Purinton

1. Celebrations
    a. Mark Twain--Really successful math night
    b. Thank you for the work at the School Board meeting
    c. Seeliger--5th grade asked about an MIU assessment and have asked to use some shared Science materials.
    d. Fremont and Bordewich-Really successful STEM Nights; 70 people came to STEM night at Fremont

2. Math MIU Rollout Plan
    a. Goal: Provide a consistent and coherent framework for strengthening teacher capacity of mathematics, including standards, depth and complexity, pacing, and instructional practices.
    b. Concerns:
        i. No materials with the MIUs
        ii. Training the cohort (reasoning behind order, structure, instructional strategies, etc)
        iii. No assessments yet
        iv. Gaps in standards when using current pacing guide mixed with MIUs
            1. Can teachers use the MIUs for standards they haven't taught yet, even though they may be out of order?
        v. Training overload next year...new curriculum and MlUs together Which teachers? The strong teachers are already doing so much. Can training happen before summer? During PLCs?
        vi. Connecting the MlUs to the materials if given to teachers before summer
            1. Make and Take Summer Course with grad credits
            2. Goal: Align MIUs with materials
        vii. Disconnect between purpose of Learning Guides and MlUs
        viii. Teachers don't want to create Learning Guides
    c. Feedback/Monitoring:
        i. Needs to be structured with specific feedback, not general feedback "I don't like it"
    d. Timeline
        i. Would like to share them in April, during the PD Day after materials have been chosen and the MIUs have been refined (vocab, assessments, etc.)

3. Science MIU Revisions
    a. Explanation Documents--Many teachers have said that they are not reading the explanation documents and only following TCI. What is the best way to get teachers to read the explanation documents so that they have a solid understanding of the standards before teaching the content?
        i. Needs to be included in the assessment course
        ii. Can read them at monthly PLCs

4. December 5th PD Day Planning
    a. Scoring Performance Task with MS Teachers (2-3 5th Grade Teachers)
    b. 4th grade--Number Talks connection to SBAC

Elementary STEM Flyer

30Awesome Elementary Teachers

Elementary STEM

Curriculum and Assessment Boot Camp

Are you interested in the following?

- Learning more about next year's math curriculum.
- Receiving access to next year's science materials at the beginning of the summer.
- Earning graduate credit for recertification.
- Providing effective feedback that motivates students to learn. Writing valid and reliable assessments.
- Building a balanced assessment system that utilizes a mix of formative, interim, and summative assessments.

Attend STEM Curriculum Boot and Assessment Boot Camp (All days).

- 2 Fridays, March 31, April 28, 4:00pm - 7:00pm
- 3 Saturdays, April 1, April 29, and May 20, 9:00am - 4:00pm
- Must read several documents prior to boot camp and be prepared to discuss them with colleagues
- Receive District Curriculum and Assessment materials for Science on July 1, 2017

For attending all days, teachers will be paid either:

- a $500 stipend
- in-service credit
- graduate credit)

30Awesome Elementary Teachers

Elementary STEM

Curriculum and Assessment Boot Camp

Are you interested in the following?

- Learning more about next year's math curriculum.
- Receiving access to next year's science materials at the beginning of the summer.
- Earning graduate credit for recertification.
- Providing effective feedback that motivates students to learn. Writing valid and reliable assessments.
- Building a balanced assessment system that utilizes a mix of formative, interim, and summative assessments.

Sample Student Science Assessment

Checklist	YES	NO
Student sorted pictures correctly		
Student was able to correctly state one feature of day time.		
Student was able to correctly state one feature of nighttime		
Student was able to correctly identify where the sun would be at lunchtime.		
Student was able to correctly ident if y where the sun would be at morning.		
Student was able to correctly identify where the sun would be at dinnertime.		
Student was able to identify both day and night patterns.		
Students were able to identify what comes after day and what comes after night.		

EVALUATION

Carson City School District will utilize the following measures to track the success of the project:

Pre/Post Survey Data: Teacher knowledge and practice related to the implementation of the NVACS for science will be measured by a pre/post survey (pre=August/post=May). This survey will be repeated with the Cohort 2 teachers in 2017/18 and beyond so that data can be compared from year-to-year. The August, 2017, pre-survey will be the baseline for the targets set forth in our objectives.

Teacher Leader Needs Assessment: A needs assessment will be conducted at the first STEM Coaches PLC in September that will be used as the baseline to plan PLC content for the remainder of the year. In May of 2017, the coaches will provide feedback as to whether their needs were met and set professional development goals for the next year.

Focus Group Data: Leadership perception of teacher implementation of the NVACS for science will be measured through data gleaned from annual leadership focus groups. The baseline data will be collected in June of2017 and each June thereafter.

Common Assessment Data: Common unit assessments were developed for every MIU in every grade level. Students take these assessments at different times, as they move through these instructional units. The common assessments measure their mastery of the NVACS for science based on sets of learning targets for each unit. The assessments are scored with rubrics, and the goal is for every student to master every standard. If students do not score at the mastery level on the unit assessments, teachers re-teach the content and students are re-tested on a similar assessment. Data on student mastery via these assessments is entered into MasteryConnect and reviewed throughout the year. At the end of the year, we will be able to measure mastery of the NVACS for science for every student in grades K-5. Baseline data on mastery for the District will be provided in June of 2017.