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Q1 Name of your organization.

Inside the Outdoors Foundation

Q2 Grant #

20170574

Q3 Grant Period

9/15/17-9/15/18

Q4 Location of your organization

City	Silverado
State	CA

Q5 Name and Title of person completing evaluation.

Lori Kiesser

Q6 Phone Number:

714.708.3889

Q7 Email address.

lkiesser@ocde.us

Page 2: Key Outcomes and Results

Q8 Total number of clients served through this grant funding:

10431

Q9 Describe the project's key outcomes and results based on the goals and objectives. Use the following format: State the Goal: State Objective 1: Describe the Activities, Results and Outcomes for Objective 1: State Objective 2 (if applicable): Describe the Activities, Results and Outcomes for Objective 2: State Objective 3 (if applicable): Describe the Activities, Results and Outcomes for Objective 3:

Objective 1: Restore environmental science experiences in the classroom through Teacher Training for 100 educators and Traveling Scientist programs for 10,000 students.

Activities: Provided Teacher Training for 192 teachers (projected participants from grant proposal: 100) and Traveling Scientist programs for 10,239 K-12th grade students (projected participants from grant proposal: 10,000).

Results: Enthusiasm for S-Cubed was high and, as such, participation in environmental science teacher training was double the grant projections. Rialto and Fontana Unified School Districts' teachers received 12 hours of professional development focused on integrating California's Environmental Principles and Concepts into classroom science lessons. They participated in activities such as community mapping, where teachers and students mapped outdoor areas of the school campus to understand human and natural systems.

Teachers learned how to identify environmental concerns on campus and then utilize engineering design process to allow students to develop proposed solutions. This activity provided the foundation for additional lessons to look at how humans and the environment interact, a key concept in the Environmental Principles and Concepts. Teachers also connected to non-formal environmental education programs in their local community during the professional development sessions and through the Environmental Education Collaborative's 2018 Symposium.

Students were able to experience additional hands-on environmental science in their classrooms through Inside the Outdoors Traveling Scientist program. Students learned how to explore science through questioning and inquiry. This is especially important in districts such as Fontana, where many students did not have access to any science until the 4th grade.

Outcomes: Schools partnered with Inside the Outdoors to integrate a comprehensive environmental science program into the classroom. Traveling Scientist programs reached a total of 10,239 students; teacher training provided essential professional development for 192 teachers. Take-home activities impacted an estimated 30,717 parents and community members. Prior to participation, 1:5 teachers expressed that they had knowledge of California's Environmental Principles and Concepts. After the training and Traveling Scientist, 60% of the teachers surveyed reported increased environmental science knowledge and the ability to use what they learned to increase student knowledge. ITO delivered over 2,300 hours of environmental science teacher training (192 teachers * 12 hours per teacher) and 10,239 hours (10,239 students * 1 hour per student) of hands-on student education as part of this project.

Q10 Please describe any challenges/obstacles the organization encountered (if any) in attaining goals & objectives.

Fontana Unified School District elementary school teachers were not required to teach science until this year. Students in grades 4-6 received 45 minutes of science instruction a week from a science specialist. As mentioned earlier no science was required in grades K-3. This presented a unique issue as many teachers expressed that they were not comfortable with science (including the soon-to-be implemented Next Generation Science Standards) and had never heard of the Environmental Principles and Concepts. It seemed to be an insurmountable task to provide the right training at the right level to introduce these teachers to environmental science for the classroom.

Q11 How did you overcome and/or address the challenges and obstacles?

This is the most exciting result for the 17/18 grant period. The sessions in Fontana started with a lot of nervous and overwhelmed teachers. ITO staff felt the same way as it was evident how the teachers felt. The day began with getting the teachers outdoors to look at human and natural systems on a highly-urbanized campus. The transformation started and teachers began chattering and smiling. They looked at plants, pavement, solar panels, trees, cars, buildings, butterflies - and science started to come to life for them. Back inside, the room was filled with chatter about how they never thought of science in that way. Teachers learned apply what they learned to take their students through a community mapping (campus) exercise. During the second session, teachers brought their campus maps with one environmental issue that they identified while creating the map. Issues ranged from school garden upkeep to trash. Using the engineering design process, teachers learned a simple method to look at an environmental problem, understand the impact of human and natural systems, brainstorm solutions and identify constraints, the plan action. At the conclusion of the two-day training, teachers reported:

- Science is doing
- Science is the path to great learning across curriculum
- Experience it live
- Science is everywhere and in everything
- Student centered

They left with a completely different frame of reference than when they started! Fontana teachers discussed collaboration and integration in the classroom. Further, Fontana Unified will launch an elementary school science team in 18/19!

Q12 Describe any unintended positive outcomes as a result of the efforts supported by this grant.

The work done with Rialto and Fontana Unified School Districts is part of California's Environmental Literacy Initiative. Inside the Outdoors is a Regional Support Agency and has regularly highlighted the work done with the support of S.L. Gimbel Foundation. Both districts are considered leading edge exemplars because of their commitment to provide their students with rich environmental education lessons and experiences. Working with Inside the Outdoors, the districts have the opportunity to create a sustainable environmental model that set the standard for all other California school districts. The combination of professional development, student experiences, and sustainability planning within both of these districts serve as a unique way to ensure that every student has the chance to understand, be in, and make decisions about the natural world in which they live.

Both Fontana and Rialto are very low-income communities where English is often a second language in the home. As school districts, they both face significant budget challenges. The communities they live-in are almost all concrete with very little green space. The fact that these two districts, in partnership with Inside the Outdoors and the Inland Empire EE Collaborative, are poised to be case studies in the design and implementation of environmental literacy for all California students is beyond what we imagined could happen when we launched S-Cubed.

Q13 Briefly describe the impact this grant has had on the organization and community served.

S-Cubed, and specifically the work we have done in Fontana and Rialto, has changed the way we work with school districts, teachers, students, other non-formals, and agencies. We were able to design teacher training to focus on local environmental concerns with simple tools for teachers and students to actually propose solutions. The Traveling Scientist program was revised to mirror the professional learning so that teachers could replicate techniques and processes. This allows students to receive ongoing environmental education as part of their classroom lessons. Further, as a result of this project, Inside the Outdoors has been appointed to the Environmental Literacy Steering Committee. The Inland Empire work has been highlighted to a statewide audience of educators, school administrators, and environmental leaders.

The community has changed because Fontana students now get science in every grade! They are studying what is happening in their own neighborhoods and learning from that. Rialto teachers are more comfortable with the Environmental Principles and Concepts and have also started integration of the Environmental Principles and Concepts. For the community, this means that children will be given the opportunity to make informed environmental choices.

Page 3: Budget

Q14 Please provide a budget expenditure report of the approved line items. Include a brief narrative on how the funds were used to fulfill grant objectives.

Teacher Training:

Curriculum development - ITO staff time: \$3,000 (S.L. Gimbel); \$2,400 (Ten Strands)

Curriculum delivery - ITO staff time: \$2,000 (S.L. Gimbel); \$5,300 (Ten Strands)

Classroom resources: \$3,500 (ITO)

Narrative re: teacher training: The cost of teacher training was higher than projected because of the interest in the training and the need to revise training to address district needs (Fontana teachers with no experience in teaching science). However, we leveraged matching funds and were able to serve all interested teachers. Ten Strands provided California's leading environmental education expert, Dr. Gerald Lieberman through matching funds and in-kind. Food for trainings and teacher incentives were provided by Ten Strands and Inside the Outdoors Foundation board members.

Teachers were provided with materials (print and digital) to support implementation of the Next Generation Science Standards and California's Environmental Principles and Concepts.

Traveling Scientist Student programs: \$45,000 (S.L. Gimbel); \$25,000 (ITO); \$32,390 (other)

Narrative: ITO was able to leverage funds from Ten Strands, paying schools, and individual contributions to serve an additional 239 students beyond the projected 10,000 students.

Evaluation: \$5,000 (other/in-kind)

Narrative: Dr. Gerald Lieberman designed teacher evaluation as in-kind to the project. The Orange County Department of Education created the student evaluation as in-kind to the project.

Page 4: Success Stories

Q15 Please relate a success story:

As mentioned earlier, Fontana elementary school teachers did not teach science at the start of this project. They also stated that they didn't understand/had never heard of California's Environmental Principles and Concepts. After two days of professional learning, they developed a list to begin implementation of student environmental education. We think the list is a success story given where the teachers started:

Driving Questions Behind California's Environmental Principles and Concepts

Fontana USD – March 14, 2018

1. How do we depend on healthy natural systems?

- Systems – bees pollinating flowers for food
- Different animals and humans get air from the plants
- Solar panels provide energy for human use
- What's the meaning of healthy natural systems (good discussion question)
- Unhealthy natural system – collapse of bee colonies

2. How do humans influence natural systems?

- Humans build structures that move/prevent water flow (sidewalks and buildings)
- Temperature is altered by building and sidewalks
- Rat/mouse trap for animal control, introducing poison, they are here because we are inviting them
- Cars we use, pollution,
- Planting of trees – for ambiance and produces oxygen
- Planting of different species, different environments and introduces natives and weed killers
- Plastics

3. How do natural systems and humans depend on natural cycles and how do human activities influence these cycles?

- Water cycle – clouds
- Life cycles – birds, trees, bees, flowers
- Sun and sleep cycles
- Seasons and the amount of light for solar power
- Humans affect the water cycle with pollution and can damage the plant and animal cycles
- Plants – impact global warming
- Issues with recycling and cleaning up old solar

4. How does matter that moves between natural and human systems affect both?

- Natural and human systems – drainage system and everything goes to the ocean
- Asphalt/concrete runoff
- Fog disappears in city
- Decay of concrete and asphalt and impact on plants and animals
- Plants – super-seeds and genetic materials
- Oxygen from plants and CO2 from humans

5. How and why do decisions affecting natural systems involve many factors and complexities?

- How to reduce environmental impact – actions warrants it and how /views to take action
- Balance needs of humans vs. natural systems (settlements create imbalance and then there needs management i.e. deer on east coast)
- Buildings deplete resources to build – need them to for schools, houses business, but not here 200 years ago
- Legal, political, social values, health and environmental justice, city management
- Electric vehicles (batteries) – end product and how to recycle
- Many factors to take into account, students backgrounds, what their parents do for a living, local economy

Q16 Please relate a success story here:

Prior to training, Rialto teachers reported that they were unaware/uncomfortable teaching science through the lens of the Environmental Principles and Concepts. After training, they said they learned to "teach environment from the point of view of system over nature/human social aspect," use "new techniques to get students involved with their environment," and use "the school/community mapping activity."

Teacher also said that they plan to provide their students with:

- "Nature walk to observe impacts of humans"
- "Do Venn Diagram with students to teach them interconnectedness of natural and human systems"
- outdoor experiences "to map the natural and human social systems and having them evaluate how one affects/interacts with the other"
- an "awareness of the importance of taking interest and care for our environment"
- "learning adventures" outdoors

The growth in awareness of/comfort with the Environmental Principles and Concepts is evident in the language the teachers used.

Q17 Please relate a success story here:

S-cubed resulted in the introduction of the Environmental Education Collaborative to Fontana and Rialto Unified School District. Teachers from both districts were able to learn about opportunities to partner with the non-formals that comprise the EE Collaborative. Science leaders from each district attended the EE Collaborative's 2018 Symposium and talked with potential partners in environmental education.

As both districts move forward to develop and implement an environmental literacy plan, the EE Collaborative will continue to be part of the process as a partner organization. This creates the opportunity for non-formal environmental education providers to support classroom lessons through field study programs, campus activities, and community engagement events. With the EE Collaborative at the table during planning, districts can identify non-formals that support specific themes (i.e., wildlife conservation, water quality, desert ecosystems) and grade levels. This type of alignment means that the non-formals can focus on the environmental education areas that they are prepared to teach.

Page 5: Organizational Information

Q18 Which category best describes the organization. **Environmental**
Please choose only one.

Q19 What is the organization's primary program area of interest? **Education**

Q20 Percentage of clients served through grant in each ethnic group category. Total must equal 100%

African American	6
Asian/Pacific Islander	3
Caucasian	4
Hispanic Latino	87

S.L. Gimbel Foundation Fund

Q21 Approximate percentage of clients served from grant funds in each age category.	Children ages 06-12 years of age	80
	Youth ages 13-18	19
	Adults	1

Q22 Approximate percentage of clients served with disabilities from grant funds.	Respondent skipped this question	
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Q23 Approximate percentage of clients served in each economic group.	At/Below Poverty Level	87
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Q24 Approximate percentage of clients served from grant funds in each population category.	Students	10239
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