Lindsay Wildlife – 2nd graders – funded

State the Challenge: Specifically describe your issue and how your project will address and attempt to solve it. (250 words max)

The natural world is the basis of most science study in the second grade, just as it was during kindergarten and the first grade. The teacher's primary goal is to foster the children's sense of curiosity about the world and their skills of inquiry. In marginalized schools where student populations are largely comprised of low-income students, and/or students who are non-native English speakers the challenge for teachers to carve out time in their lesson plans to devote to science is enormous. English and math proficiency are top priorities. In-depth, long-term exploration of science related themes are near impossible to implement. At Fairmont elementary second graders are naturally curious about their world around them, and are eager to understand how it works. However lack of access to science labs, computers, and other tools of scientific inquiry create a gap in their learning environment that needs to be filled. As traveling off-campus is not easily arranged for the four classrooms that make up the second grade population, classroom workshops by visiting lecturers are much more practical. We are fortunate to have the Lindsay Wildlife Museum offer such educational opportunities. Museum docents will bring live animal specimens into the children's classroom where an intimate, interactive presentation provides the students with the rich exposure they need to integrate science concepts they have only read about.

Detailed Project Description: Describe your project idea. Be sure to include examples of envisioned student activities. (350 words max)

Lindsay Wildlife Museum docents will bring live animals, insects, and artifacts to Fairmont elementary school second graders for a curriculum-directed presentation.The presentations correlate with the California State Science Standards in Life Sciences 2a, b, c, and d. and the Investigation and Experimentation standards. The small classroom workshops will allow the children to interact directly with the science materials and observe phenomena firsthand! Teachers and docents will make frequent use of questions that stimulate the critical thinking of the children: Why is that? How does that happen? What if...? The Lindsay Wildlife museum will augment the second grade unit on invertebrates and arthropods. Thematic activities planned include:

What is an insect? How did they get here? Why are they useful? Students will engage in research by utilizing the school library during their weekly visit. They will have parent volunteer storytellers reading fiction books about insects in the 3 weeks leading up to the presentation. They will check out their own non-fiction books and keep a log in their reading journals documenting the books used.

Classroom journaling on their favorite or most feared bugs will spark group discussions about our daily interactions with insects.

Students will be introduced to scientific terms related to invertabrates and arthropods within their weekly spelling vocabulary quizzes.

60-minute presentation by Lindsay Wildlife Museum will bring the curriculum to life. Students will see, touch, and smell a host of live and preserved insects and insect habitats.

Classroom visual art projects will allow the students to incorporate their new scientific knowledge of bug anatomy with their own creativity and self-expression.

Project Objectives: Specifically state what students will learn and be able to do as a result of this grant. (250 words max)

- The Investigation and Experimentation standards allow students to make a concrete association between science and the study of nature as well as provide them with many opportunities to take measurements and use their basic mathematical skills.
- Students will discover that there are more kinds of insects in the world that all other animals and plants combined.
- Students will understand, through research and guided classroom discussions that although we may fear them, insects and spiders have important roles in our environment as predators, consumers and decomposers.
- Myths and misunderstandings will be dispelled as students learn in a variety of experiential methods: hands-on during the presentation, through journaling, through visual arts projects, and through individual and group research in the school library.
- Students will add scientific terms to their vocabularies through the integration of thematic terms with weekly spelling words.

Schedule of Events: Please include a time line of activities, starting in November, to show that the project is well-planned. (250 words max)

- In November students will begin library research on insects. Librarian will orient the students to the non-fiction collection on the topic. Reading journals begin. Topic: What is your most feared and most favorite bug and why?
- 2nd week of November scientific terms will be introduced into the weekly spelling vocabulary lists. Classroom discussions will ensue to pique interest.
- Teachers will provide worksheets identifying insect body parts and images of different species. Fears and favorites will be discussed.
- End of November, after Thanksgiving holiday, student art will be hung around the classrooms for viewing, reinforcing gained knowledge on insect anatomy.
- Lindsey Wildlife Museum presentation will be scheduled for first week of December to coincide with the end of the unit on invertebrates and arthropods.
- Final journal entry revisited after the presentation: what is your most favorite and most feared bug, and why?

Project Evaluation: How will you determine if your objectives have been met? Include at least one quantitative method. (250 words max)

1. At least 80% of students will participate in library research, measured by computer-generated log of items checked out to individual students.
2. Evaluate comprehension of scientific terms through scores on weekly vocabulary quizzes and tests.
3. Teachers will make frequent use of questions that stimulate the critical thinking of the children: Why is that? How does that happen? What if...?
4. Survey students' knowledge of the benefits of insects and spiders in the environment at beginning of unit.
5. Re-survey students' knowledge of the benefits of insects and spiders in the environment at end of unit.

Budget Outline: Please provide specific information on the materials to be purchased with the grant funds. (150 words max)

4 presentations @ $120.00 each = $480
4 books @20 each