Intel Teaching Fellows

Sample Applications

Sample Budget Proposal #1: Female Teacher, 20-years experience, small, rural school

The following is an example of a well-established program that, with additional support and funding, could begin to sustain itself. This is not a requirement for a budget, but we encourage you to think creatively about the possibilities for your program after your years with the Intel Fellows program would come to a close. We encourage you to delineate and given a specific explanation for each category.

The stipend would supply the necessary equipment to conduct agricultural research. This idea has been in development for a long time. Through a grant ten + years ago, we had obtained a green house. However, I have not been able to find a grant that would support the additional expense of the necessary laboratory equipment for research. Farmers are supportive and would love to have the opportunity to have their hay and wheat analyzed. Currently they send in their samples to a private laboratory in Reno where it can often take up to several weeks for the results to be released. With research as the primary function, this equipment could also be used as a student industry, not only creating work experience in laboratory techniques, but also providing a service at minimal cost to the farmers. This grant would also provide me training so I can receive state certification in running certified samples with students, so that the data collected could be incorporated into any authentic research data- base. Receiving this grant would enable our students to overcome the dependency of external agencies. In the past, a policy or personnel change would happen, subsequently ending the field research for my students. With our own equipment, we could continue the course of research. There is no current funding for such an endeavor. With budget projects, the science department is considering the implementation of science lab fees or having many bake sales to cover the regular course curricula.

EX - Expense Explanation; SP - Specify Funding

Category Description	SSP Fellows Direct Support Money	School or School District	Other funding (Specify)	Totals
Staffing Costs	$0.00	$0.00	$0.00 SP:na	$0.00
Professional / Staff Development	$650.00	$0.00	$0.00 SP:na	$650.00
Substitute Teacher Time	$765.00	$0.00	$0.00 SP:na	$765.00
Equipment/Software (Other than computers or Peripherals)	$5,000.00	$0.00	$0.00 SP:na	$5,000.00
Consumable Materials and Printing	$795.00	$0.00	$0.00 SP:na	$795.00
Curriculum Purchase Facilities / Transportation	$750.00	$0.00	$0.00 SP:na	$750.00
Incentives Other Expenses (Specify)	$540.00 EX: lunch for students field collection days	$0.00 EX:na	$0.00 SP:na EX: na	$540.00
TOTAL - Not to exceed $8500 USD				**$8,500.00**

Sample Budget Proposal #2: Male Teacher, 15 years experience, large, rural school

The following is an example of a budget for the expansion of a partially-established program.

(Teacher currently runs a successful high school research program, but has difficulty recruiting younger students. Funding will place younger students on research teams with older students, who would report to the teacher. Teams will work with scientists in the local area and present their findings at conferences and science fairs.)

Current funding from my school and school district are tight. Our legislature has announced reductions in school funding for the coming year. Consequently, funding for student research will be even tighter. In the past, I have been able to secure vehicles and fuel to travel to the field and have been able to utilize school facilities. However, the school has been unable to provide materials and supplies specific to each research project. I have occasionally been able to secure minimal funding from local agencies to support specific projects. However, those agencies that provided support are government funded and are facing budget cuts as well. Most of our research projects begin as environmental studies. They then rapidly evolve into some other area as students find a specific topic of interest (microbiology, speleology, population dynamics, etc.). Once I get students into the field, the biggest deterrent I face in keeping their interest is providing them with appropriate materials to conduct their research. I am budgeting $5400 to provide adequate equipment for studies my students conduct. This would include GPS, photo-documentation, on-site limnology and ecosystem analysis as well as consumables needed for sampling. The greatest incentive I have found is taking students to professional meetings. The opportunity to travel and see how scientists really live has been a great motivator for my students. I plan to budget $2400 for travel to scientific meetings around the region. I am budgeting the remaining $700 for consumables, document service (journals), substitute teacher, and t-shirts.

EX - Expense Explanation; SP - Specify Funding

Category Description	**SSP Fellows Direct Support Money**	**School or School District**	**Other funding (Specify)**	**Totals**
Staffing Costs	$0.00	$0.00	$0.00 SP:	$0.00
Professional / Staff Development	$0.00	$0.00	$0.00 SP:	$0.00
Substitute Teacher Time	$250.00	$0.00	$0.00 SP:	$250.00
Equipment/Software (Other than computers or Peripherals)	$5,400.00	$0.00	$0.00 SP:	$5,400.00
Consumable Materials and Printing	$100.00	$0.00	$0.00 SP:	$100.00
Curriculum Purchase Facilities / Transportation	$2,550.00	$0.00	$0.00 SP:	$2,550.00
Incentives Other Expenses (Specify)	$200.00 EX: t-shirts for our high school research team.	$0.00 EX:	$0.00 SP: EX:	$200.00
TOTAL - Not to exceed $8500 USD				**$8,500.00**

Sample Essay #1: Female Teacher, 14 years experience, Small, rural school

The following is an example of an application for the implementation of a new program. We encourage you to be specific, descriptive, and creative in your explanation of yet-to-be implemented programs.

Timberland High School, grades 9-12, is a rural school which serves several surrounding communities in the northern part of Berkeley County in the Low Country Area of South Carolina. A large number of our students ride buses from areas that would take 45 minutes one way by car. Our school serves just 889 students of which 70% receive free/reduced lunch. Our student population is comprised of approximately 60% African-American, 38% Caucasian, and 2% of Hispanic and other nationalities. We also serve a special education population of approximately 14%. A significant number of our students live in single parent homes of whom most work multiple jobs. In the tri-county area including Berkeley we have several colleges/universities such as Trident Technical College, Charleston Southern University, College of Charleston, and the Medical University of South Carolina. These higher-level institutions are all within 90 minutes driving time one way. There are various types of industry in the area also such as Bayer, Alcoa, J.W. Aluminum, DuPont, Google, Westvaco, and Georgia Pacific. Timberland currently does not have any extracurricular science opportunities. We are planning to implement a THS Science Club with major activities coordinated with the SC Junior Academy of Science. Some of many objectives of this science club is to not only promote science research, but also the love of science and teaching younger students through Boy Scout and Girl Scout service activities. We have already talked to our head guidance counselor and principal about implementing an Integrated Science Research course taught by a science teacher concurrently being taught with a Technical Writing course being taught by an English teacher. We are planning to invite the top 20% of the rising 9th and 10th graders to apply for the courses in order to hopefully foster excitement in the scientific process in a long term sense. Parents would be involved from the beginning including the invitations for application. We would pool our current contacts and develop new ones as needed to meet the needs of as many students as possible to foster the scientific process and their own creativity in developing their ideas for authentic research. We would require the students to present at school level symposia, the regional Low Country Science and Engineering Fair, the annual SC Junior Academy of Science Meeting. This grant would allow more of our students, three in the past, to compete in the Intel International Science and Engineering Fair.

Sample Essay #2: Female Teacher, 3 years experience, small, urban school

The following is an example of essay for a well-established program. You should include specific organization and partner names, though names here have been deleted or altered.

At the secondary school level, the central goal of science education is to actively engage students so that they can experience first hand the challenges and rewards of carrying out basic and applied research. This goal can be difficult to attain because of limited resources and limited research training of high school educators. One challenge in university research is to fund and sustain a study that requires a long term data series. We provide an example of how these limitations can be overcome through collaborations between students, educators, and university faculty. Since 2005, our school and research scientists from the State University's Earth Observatory have studied biological sustainability of the local wetland, Muddy Marsh. Sampling is conducted with permission and oversight of the State Department of Environmental Conservation. The project provides opportunities for inner city, minority students to participate in scientific research while developing a deeper understanding of an estuarine system that contributes vitally to the economy and quality of life in the Snake River Basin. Previously, we recruited students from science classes who demonstrated interest and curiosity. Recruitment is now self-sustaining through word of mouth and students outside our district regularly inquire about participating. Our veterans serve as ambassadors and recruiters by conducting presentations for the school population and the community at large. Our school is a Title I public all-girls school that is ~60% Latina, 40% African American. Founded in 2001, it was the first female public school in the state in 30 years; it continues to be a model for the 15 female city schools currently in operation. During the summer the program focuses on engaging students in fieldwork, throughout the year continued research is integrated into the science classroom. Students learn rigorous field sampling techniques and basic laboratory skills that allow them to become more competitive for college placements. An overview of the program is available at: http://www.ourschoolresearch.edu. In addition to its educational purposes, our project contributes to publicly funded research programs, including studies of fish migration and nutrient cycling in the Snake-Red River estuary. We hope to expand data collection to include continuous monitoring of the marsh interior and sedimentary nutrient fluxes in the estuary, and extend into 2009 our study of fish migration and recruitment; nutrient concentrations; and hydrological dynamics between Muddy Marsh and the Snake River.