BEYOND THE BOOKS EDUCATIONAL FOUNDATION
Sample Standard Grant Application
(Written as if it is March of 1995)

Describe the project as the students will experience it AND explain how your project offers an innovative approach to learning. This innovative approach can be a brand-new idea or a creative change to your current approach.

Home computer sales increased by 25% in the past year, with one-third of US households now owning at least one computer. This explosion in computer-ownership is a reflection of the increased significance of computers in all aspects of human life. So many professions are being revolutionized by the introduction of computer technology that students lacking computer skills will be at a serious disadvantage in the workplace. It is a serious problem, then, that a) fewer than 12% of student households in our school have a computer and b) that our school does not have any computers available for student use. This puts our students at a distinct educational disadvantage compared to other students who have computers at home and in their classrooms.

   As important as it is for students to learn their way around the computer and to discover the many tasks it is capable of performing, there is a second, even more important contribution that computers make to student learning: Computers are a powerful tool to help student master every subject in the K-12 curriculum. A small sample of discipline-specific programs include mathematics ("Math-Blasters"), critical thinking ("The Logical Journey of the Zoombinis"), and reading ("Reader Rabbit's Grade Four"). In addition, Encarta is a powerful digital encyclopedia that covers a multitude of subjects and develops students' research skills.

   Computers also support multiple student learning styles and thus enable students who struggle with traditional instructional methods to gain confidence and proficiency through computer-aided instruction. Computers are geared to help all students, regardless of what their preferred learning style is: visual, auditory or kinesthetic.

   While a few schools within our district have been able to add a computer(s) for special uses, incorporating a computer within my classroom and using the computer not only as a way of conveying knowledge but also as means of addressing student learning styles is an innovative approach not being used in any other classroom in our school. There is good evidence that the implementation of this project will have a substantive impact on student outcomes.

Word count: 338 /400

Describe in detail which students and how many are impacted, when and how often during the year the innovations will be used, and how significant the impact on student learning will be.

The computer will be used with the entire class, with small groups of 5 students, and by individual students.

   I teach the science module for both my 4th grade class (20 students) and for the other 4th grade class (21 students). That teacher instructs my students in history while I instruct hers in science. Each week, in the one-hour science period, students will be broken up into groups of 5 and will spend one day each on book studies, lab work, and the computer – researching Encarta and analyzing and interpreting scientific computer models (free online from MIT). Therefore, each week all 41 students will be part of a team that spends one hour with the computer.

   At least three times a month I will do an hour-long all-class activity where I will have the computer at the front of the class and we will strategize together to solve logical puzzles and mathematical challenges supplied by computer software. This will foster the skills of communication, argumentation, and respectful collaboration as well as promoting knowledge of new computer programs in a safe, supportive environment.

   Once a month each student will have 30 minutes alone with the computer during our 30-minute flex-time when students work on educational tasks that they most enjoy.

   All totaled, my 20 students will each engage with the computer a minimum of 8 hours every month (often much more) and the 21 students from the other class will engage 4 hours.

Word count: 242 / 250

List collaborative partners involved in your project and how each adds value. These may include partners both inside and outside the school such as grade level(s), other departments, business or community partners.

I have two collaborative partners: one internal partner teacher and an external corporation to apply real life application of skills taught within the classroom.

1. I swap classrooms with a partner history teacher in my grade level (see answer to question 2. above); I teach their students science and they teach my students history. My partner teacher's 21 students will have access to the computer during their science lessons.
2. Another partner is the Contoso corporation which sends an accountant to my classroom to teach about budgeting. Each team of science students develops a hypothetical science project and creates a budget. Using the Excel software, they create the spreadsheet on the computer, getting real world experience of budgets and finances from an industry professional.

Word count: 124 / 125

Describe the teaching strategies that will be used and explain how those are connected to the innovative approach of your project.

Many studies (e.g., "Inquiry Based Instruction", *Education Today*, 1991, pp.29-42) have shown that teaching science through the passive reading of textbooks and assessments based on rote memorization is one of the least effective methods for instilling a rich understanding of the scientific method and complex scientific concepts. Instead, students thrive when they are actively engaged in scientific inquiry. We don't have physical science labs but we can put students into a computer environment where they must use dynamic, inquiry-driven strategies to accomplish challenging tasks and arrive at well-defended scientific theses.

   While the inquiry-based instruction just described applies directly to the science classes referred to in question 2 above, it is applicable more broadly to learning in all disciplines. Students gain a deeper understanding of all subjects, and retain that information longer, if they have acquired that knowledge through a dynamic process of discovery. Computer software in all the disciplines previously described provide this kind of inquiry-based instruction.

   This complements what was said earlier about differing learning styles. Some course content is most efficiently conveyed through the reading of books and the hearing of traditional lectures. Some children can absorb information and have a deep understanding of it from those traditional methods. While others are more visual, auditory or kinesthetic learners and need a little something more. A computer is as flexible in its teaching strategies as the many pieces of software that can be run on it.

Word count: 236 /250

Describe how your project will be sustained in future years. If a one-time event, provide justification.

A computer is a significant financial investment for the school, so I will exhibit and model rules for use to keep our students and computer safe for future years. The computer will be stored on a sturdy rolling computer cart and when not in use, a dust cover will serve a dual purpose of protection along with letting students know that the computer cannot be used at that time. A two-year manufacturer warranty is included to protect our investment along with the purchase of anti-virus software. A $99 Encarta upgrade will cover one upgrade in the next 5 years. The life-span of the computer, given the uses that will be made of it in the classroom is projected to be 5-7 years.

Word count: 121 / 250

Describe the measures of success that will be used to evaluate and assess the effectiveness of your project on student achievement. Appropriate methods include, but are not limited to: Observation, Survey, Pre- and Post-testing.

The learning objectives are both cognitive (content-related) and affective (attitudinal) so pre- and post-tests will be given covering both areas. A survey will be taken the first and last week of class measuring student's knowledge of computers, their attitudes (positive and negative) towards them and their confidence level (high or low) in working with computers and the results will be compared. As to content, I will use the standard assessments I use each year (quizzes, oral presentations, tests and short essays) to compare previous year's student performance with this year's students' mastery of the subject matter, especially the more complex scientific concepts and methods covered in the science section to see which computer tasks proved most effective. Finally, nothing can replace a weekly observation of student engagement, facility with computers, excitement for learning and mastery of content.

Word count: 137 / 250

Include a complete, realistic budget of proposal expenditures, a list of items which align with the proposal goals, the approximate cost of each item requests and the total amount to fund the proposal in whole dollars?

$230 Uline rolling computer cart

$1000 Windows 95 Computer w/ 3GB Hard Drive and 32MB RAM

$300 SVGA Monitor

$40 Headphones

$20 Dust cover

$100 Antivirus software

$200 Microsoft Office 95

$199 Microsoft Encarta 1995

$99 Encarta (upgrade)

$40 The Magic School Bus Explores the Solar System

$40 The Magic School Bus Explores the Human Body

$35 Math Blaster!

$45 The Logical Journey of the Zoombinis

$40 Reading Rabbit Grade 4

Total: $2,388