

Sample Minigrant Proposal - Elementary School Science

The information in this fictional minigrant proposal is based on several actual proposals, and is designed to serve as a general example.

Project Title: Gearing Up For Science (GUFS) **Budget Requested:** \$204.75

Subject area: Physical science, simple machines, gears

Project Summary:

Teaching simple machines has always been difficult for me. Students are often bored by the textbook, and there seems to be no easy way to go beyond the worksheets. I want all of my students to have hands-on experiences with simple machines, especially the excitement of gears. It is especially important that I provide hands-on opportunities to my female and minority students, since many of them have had little or no personal encounter with gears.

During the GUFS project, students will truly "turn on" to science. Using special hands-on building sets, they will design and build devices with actual gears. They will become more aware of gears in the world around them. By the end of the project, they will be solving challenging problems with geared devices. The culminating project will be a "Gear Up Day" in which student teams demonstrate their gear projects.

Who Will Benefit: 48 fourth grade students each school year. Once I have completed the gear unit with my 24 students, I will pass it on to the other grade 4 teacher for use with her 24 students.

Project Objectives:

1. Provide hands-on opportunities for students to work with simple machines, gears in particular, and learn how they work.
2. Help students experience the excitement of how gears are used in the world around them.
3. Help students learn and apply problem solving skills.

Project Activities/Methods: Students explore gears using special building sets from LEGO Dacta by building and operating simple gear models. Next, students build more complex gear models by following step-by-step instructions and then investigate their behavior. Then, students invent and build their own geared devices to solve problem challenges. Finally, students exhibit their favorite inventions at a special Gear Up Day program. Special guests will be students from the 3rd grade (my students for next year). These activities fulfill the requirements of paragraph 4.2 in our physical science curriculum.

Evaluation: I will use a variety of methods to evaluate both the students and the project. All students will keep a daily science journal, which I will read and annotate. The learning behavior (cognitive, affective, and psychomotor) of each student will be recorded weekly on a checklist I have designed. Students will be given a written test and a building test at the end of the project.

Budget Requested:

Gear TECHNIC Mini-Series Class Pack (includes 12 sets and 1 teacher guide)	\$175.00
Shipping & Handling	\$12.25
Miscellaneous Expenses	<u>\$17.50</u>
Total	\$204.75

Other Sources of Support: LEGO Dacta will provide a slot in an upcoming professional development workshop next month. The PTA has offered to purchase any additional sets needed, up to a limit of \$35. One parent has volunteered to help as an aide twice a week.