

Line #93
100605
10/26/15
revised 4/07



Village of Lombard Recycling Education Grant Program APPLICATION

PART 1 – GENERAL INFORMATION

Name of institution: MONTINI CATHOLIC HIGH SCHOOL
Address: 19 WEST 070 16th STREET LOMBARD, IL 60148
Name and title of person to contact: BROTHER THOMAS HARDING, fsc
Number of students: 700 Number of students residing in incorporated Lombard: 153 (estimate)

PART 2 – AMOUNT REQUESTED & PROJECT DESCRIPTION

- a. Amount of grant request: \$ 2,500
- b. How many students will the grant funds help to educate? 100 % or 700
- c. Has the institution received prior grant money from the Village of Lombard? YES NO
- d. Provide a clear, concise description of the proposed project. Indicate how the project promotes enthusiasm to learn more about the environment, how the project fits into your organizations curriculum and how it will enhance environmental education or outreach. See enclosed report
- e. Provide detailed descriptions of items requested and costs. If the grant involves commodity purchases, provide three quotes including vendor name and prices. If recycled products are being purchased, list what percentage of product is made from recycled materials. See enclosed report

PART 3 – CURRENT PROGRAM (RECYCLING, ENVIRONMENT, CONSERVATION)

- a. Has your institution earned the Earth Flag? YES NO
(for information on earning the Earth Flag visit www.bookrescue.org/scarce/default.asp?page=Searthflag)
- b. Does your institution have an environmental club? YES NO
- c. How many students participate in recycling/environmental/conservation efforts? three-fourths of our
- d. How many students are being taught about recycling/environment/conservation? student body
100 % overall - see enclosed
- e. How are environmental programs emphasized in your classes? see/read enclosed report
- f. In your typed report, explain your current recycling/environmental/conservation program and past accomplishments. How long have you had this program? What does the institution do for the environment other than recycling? How has the program helped people in the Village of Lombard?
see/read enclosed

Office use only

Approved by: _____
Chairperson, Environmental Concerns Committee

Date: _____

Part 2: Amount Requested and Project Description

This grant requests the purchase of USB handheld digital microscopes and accessories to enhance the study of environmental and biological specimens and the activities that involve their study.

At Montini our science classes already partake in various field trips that involve testing the quality of water and soil, as well as studying ecological succession. In general, the digital microscopes will enhance this learning experience by supplying “real time” pictures and video of recent excursions to be viewed the same day in the classroom. These specimens would then be viewed at various microscopic levels.

More specifically, the USB digital handheld microscopes will help the students of Montini Catholic High School in their education in the following ways:

1. The digital microscope can be used in conjunction with the current vermicomposting project to take still pictures, video and time-lapsed video of the redworms as they convert paper products and food waste into 100% organic compost.
 - a. Each science classroom has 2-3 vermicomposting units. All units are in active use.
2. They can be used all year round as an educational tool in all science classrooms with regard to almost every aspect of environmental education.
3. While studying botany, the digital microscope can be used in conjunction with the various terrariums and/or aquariums present in the science classrooms to study plant structure up close and study the ecology within these terrariums and/or aquariums.
4. While studying animal behavior the digital microscope can be used to take still pictures and video as well as time-lapsed video of the various animals available to study in our science classrooms, such as: snakes, opossums, many types of reptiles and amphibians, tarantulas and numerous fish. We can witness how these animals interact with their environment.
5. The study of healthy vs. unhealthy aquatic ecosystems becomes more real by examining live plankton indicator organisms both in the lab and in the field.
6. The USB digital handheld microscope is 100% portable, so taking it along on field excursions will be easy. It will enable the teacher to take still pictures of the soil, water, plants, or animals that the students are studying. We will be able to magnify these images as well. These pictures may be taken back to the classroom the very same day so the students may see how the various organisms have interacted with their environment.

The attached documents detail information regarding three vendors, their pricing and ordering information.

We require 7 units at a cost of \$350 each. This includes the base unit and the tripod base.

Part 3 – Current Program (Recycling, Environment, Conservation)

e. The environmental and conservation program emphasis begins at the freshman level. Most freshmen are enrolled in the Environmental Science class. This course is the introduction of science at Montini Catholic High School. The course is an overview of all the sciences emphasizing the interrelationship of organisms to environment. The honors students at the freshman level and sophomores are enrolled in Biology. This course examines environmental issues first, at the cellular level. The web of life starts with plants and animals at this stage. The production of oxygen through ocean plankton and the beginning of the food chain are examined in the first semester. In Chemistry, lessons on acid rain, water and air pollution are a part of the curriculum. Energy production is included in both the Chemistry and Physics courses, with Physics emphasizing energy alternatives. Earth Science examines the production of soil, as well as weather/climate changes on the global scale. The unit on Oceanography includes the effect of oceans on weather and shorelines. All areas of pollution are covered and are required for graduation. Further, several of the classes have Internet projects that incorporate ideas for improvements in environmental areas. In all classrooms/laboratories, recycling bins are in place and instructional personnel support the Environmental Club, which bi-weekly collects the bins.

f. Currently the Environmental Club has members in all four levels of classes. Members of the Environmental Club are responsible for collecting recycling bins from every classroom, and work to beautify the school grounds. Their landscaping work is located at the center of the school's courtyard and is passed by the students each day entering and leaving the Main Lobby Entranceway. Yearly, members of the student body join others in the Lombard area to work at the Lombard Recycling Extravaganza, have been involved in the Nike Shoe Collection for recycling, and in ink cartridge recycling. Annually, there is a recycling competition among the grade-levels to recycle pop-tabs that are donated to the Maywood Ronald McDonald House. At the end of the school year, students collect used books and workbooks. The used books are sent to the missions or are sent to a recycling plant. Workbook pages that were used are removed and these are also recycled. More than a ton of material is recycled that could be land-fill!!

The real impact though comes from the message sent to all students, faculty and their families and that is the importance of reducing our wastes and reusing materials, instead of just throwing them away. Since the school uses the same recycling bins that the Village of Lombard uses, it helps to reinforce the message. Each week, residents of Lombard put out their recycling bins and the idea of recycling isn't just "the school's thing" but is the Right Thing. While the school has recycled since the 1980's, the Environmental Club was organized in 1990.

Additionally, Montini Catholic has its own Total Energy Power Plant allowing for the production of electricity, which is used to power a large portion of the school. Built in the mid-1960s, the Power Plant utilizes natural gas in order to produce electricity. The waste heat-exhaust and heated water are also used and recaptured to heat and air-condition the original Main Building! Natural gas is the most abundant energy source in the United States. Most recently, additional new construction added a Field House, a new classroom wing, and six new science laboratories, a full library/resource center, and new administrative office suites to the campus. These additions, as well as the school's enhancement of computer technology, audio-visual technology and Smart-Boards, have all resulted in the use of Commonwealth Edison as a source of electrical power. Nevertheless, the original Power Plant, utilizing natural gas, still provides the majority of Montini's energy needs.

Finally, the Environmental Science Classes have invested several days, when appropriate, in the field in order to analyze pond water from the area flood detention ponds surrounding the Montini Catholic campus. The Knolls Park along 16th Street, east of the main campus, has been found to be suitable to support aquatic and other wildlife.

ProScope HR CSI Science Level 1



- 0-10x Lens
- 50x Lens
- Carrying Case
- ProScope HR software CD

With HR Base

\$429.00 each

Special Offer: Dino-Lite AM411T w/Flexible Stand
[AM411T/MS21]



price: **\$349.00 each**

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ProScope HR CSI Science Level 2



- 0-10x Lens
- 50x Lens
- 200x Lens
- Precision Stand
- Carrying Case
- ProScope HR software CD

With HR Base

\$729.00



MONTINI CATHOLIC HIGH SCHOOL

19 W 070 16th Street—Lombard, Illinois 60148-4797
Telephone 630.627.6930—Fax 630.627.6965—info@montini.org

Line# 93
100605

October 8, 2010

Mr. David P. Gorman, PE
Assistant Director of Public Works
Village of Lombard
255 E. Wilson Avenue
Lombard, IL 60148

OCT - 8 2010

Dear Mr. Gorman:

Enclosed with this cover letter is an application from Montini Catholic High School for the Recycling Education Grant Application. Montini Catholic is respectfully requesting your consideration for the purchase of USB handheld digital microscopes & accessories in order to further the study of environmental & biological specimens, and the activities which involve & engage their examination & research. Our students would need only seven (7) units at a cost of \$ 350 each. The overall cost will be \$ 2,450. The requested grant amount is \$2,500. There is also the additional cost of handling & shipping.

Montini Catholic High School is a college preparatory co-ed school that is owned and operated by the De La Salle Christian Brothers. We have provided over 44 years of Lasallian Education to residents of Lombard and surrounding communities. The 700 students attending our school come from diverse academic and social backgrounds and participate in a curriculum that provides a well-rounded education that also stresses service to community and to fellow students. 98% of our students go on to higher education.

On behalf of Montini Catholic High School I thank you and the Committee Members in advance for your consideration of this proposal. I know that you receive many worthy requests and appreciate all that you and your committee do for our students and community. Please contact me at 630.627.6930 ext. 179, if additional information is needed.

Truly yours,

Brother Thomas Harding, fsc
For Montini Catholic High School
Director of Corporate and Foundation Relations