Hands-on school or community- based project

The NOAA Ocean Guardian School program supports hands-on stewardship projects that are focused on current issues affecting the health of local watersheds and/or the ocean while promoting best environmental practices. Grants are awarded for up to $4,000 per school depending on the program region, level of the project and funding year. Schools are welcome to apply for participation in the program without funding. All participating schools – funded and non-funded – will be evaluated at the end of the year for formal NOAA Ocean Guardian School recognition.

Schools propose hands-on projects that are in response to an issue affecting the health of a local watershed and/or the ocean. Each project must connect to one of the program's five ocean and climate literacy pathways: Watershed Restoration, Marine Debris, Refuse/Rethink/Reduce/Reuse/Recycle/Rot (6Rs), Schoolyard Garden/Habitat, and Energy & Ocean Health.

A proposed project may involve school-wide participation or specific grade(s), class(es), or school club(s). For additional examples of Ocean Guardian School projects, please visit http://sanctuaries.noaa.gov/education/ocean_guardian/examples.html.

Remember, a proposed project must focus on an issue affecting the health of a watershed and/or the ocean.

Ocean Guardian School Project Pathways and example projects

- Watershed Restoration - watershed/wetland restoration, fish habitat creation, shoreline/bank stabilization
- 6Rs (Refuse, Rethink, Reduce, Reuse, Rot, Recycle) - school-wide recycling/composting programs, redesign and implementation of school-based wastewater system, school-wide green purchasing program, zero waste lunch program
- Marine Debris - reducing single-use plastics in school, promoting reusable bags in local community/stores, promoting monofilament recycling stations in community
- Schoolyard Garden/Habitat - creating or improving school gardens/schoolyard habitats with an emphasis on native plants, low water use, rain catchment systems, etc. while clearly connecting these activities to the health and preservation of the local watershed and/or ocean
- Energy & Ocean Health - school energy audits/carbon footprint calculations resulting in energy saving plans (i.e., "power down" campaign, "no idling" campaign, bike to school days, light bulb/computer energy saving plans, etc.), clean energy alternatives such as wind/solar projects, water savings projects, tree planting

During the year-long project period, Lead Teachers are required to incorporate the following into project activities and/or supplemental lessons:

- <u>National marine sanctuaries</u>: An introduction into the National Marine Sanctuary System including at least one of the sanctuaries, preferably a sanctuary that is closest to the participating school and/or connected to the project.
- <u>Watershed education</u>: Learning opportunities focused on watershed identification and the land-ocean connection. By the end of the year, students should be able to identify the watershed in which their school is located.

School Outreach

1. **Project Introduction Presentation:** Within the first eight weeks of the school year, a Project Introduction Presentation must be carried out by teachers and/or students to as much of the school community as possible. There is no required format for this initial presentation. Schools select the best means to communicate its Ocean Guardian project to students, teachers, staff, and parents. Please note that it is unacceptable to use *only* a school website for the Project Introduction Presentation. Recommended presentation formats include but are not limited to:
   - School-wide assembly
   - Individual classroom presentations given by teachers and/or students
   - Series of morning announcements carried out by teachers and/or students
   - Series of email/newsletter articles written by teachers and/or students

   The following topics must be included in the Project Introduction Presentation:
   - What is an Ocean Guardian School? Brief summary of the school's stewardship project, how it will help protect the health of the local watershed and/or the ocean
   - Introductory information about the National Marine Sanctuary System
   - Overview of the land-ocean (watershed) connection

   Participating schools will have access to an introductory PowerPoint presentation and a short video to use only as needed for the Project Introduction Presentation.

> The PROJECT INTRODUCTION PRESENTATION is a program requirement and is included in the evaluation process for final NOAA Ocean Guardian School recognition.

2. **Project Wrap-up:** At the end of the school year, students who have been involved with the Ocean Guardian project share an aspect of their project experiences (i.e., lessons learned, best practices, community outreach, project impacts, etc.) with their school community. Presentations can include but are not limited to formal presentations of accomplished work, artwork, songs, plays, poems, written reports/articles, etc.

> The PROJECT WRAP-UP is a program requirement and is included in the evaluation process for final NOAA Ocean Guardian School recognition.

Internal & External Outreach

During an Ocean Guardian School project year, students are expected to have opportunities to engage in both internal and external outreach activities. Written and verbal communications apply to both internal and external outreach activities.

Year 1+ schools are required to engage their students in only internal outreach.
Year 2+ schools are expected to expand their students' opportunities to external outreach activities.

1. **Internal Outreach** activities focus on communicating Ocean Guardian School projects and related environmental issues within the school community. Internal outreach activities may include but are not limited to:
   • Student created posters displayed at school
   • Student presentations to other students/classes/grades in their school
   • Student written articles for school newspaper, school website, etc.
   • Student presentations to teachers/staff
   • Student presentations/communications to the parent community (PTO/PTA)
   • Student presentations to the larger school community (school board, school site council, superintendent, etc.)

2. **External outreach** activities focus outside the school community – to the local community and beyond. Examples of external outreach include are but not limited to:
   • Student presentations to students in other schools
   • Student presentations/participation in local community festivals/fairs/events
   • Student written letters/articles to local papers, political representatives, business leaders, community organizations, community partners, etc.

- Student created educational information distributed to community neighborhoods, businesses, etc.
- Student produced PowerPoints, videos, plays, songs, etc. presented to community audiences

INTERNAL & EXTERNAL OUTREACH are program requirements and are included in the evaluation process for final NOAA Ocean Guardian School recognition.

Measurable Data

An Ocean Guardian School project application must include information about the quantitative data that will be collected during the project period. This measurable data helps to tell not only each project's unique story, but together with other participating schools, the measurable data contributes to the larger impact of the Ocean Guardian School program. The Ocean Guardian School office will share school data with sanctuary and NOAA colleagues who in turn, work to shape federal priorities and programs around ocean stewardship.

Lead Teachers will submit measurable data in the Final Report Survey (see Final Report Survey, page 7).

Below are examples of measurable data. This is not a complete list. Projects may include other quantitative data that is not listed below, but is specific to the school's Ocean Guardian project activities.

Note: For all activities with a red asterisk *, at the end of the year, Lead Teachers will be asked to report on the estimated number of total hours students have participated in those activities.

School Garden/Habitat and Watershed Restoration Activities	6R and Marine Debris Activities	Energy & Ocean Health Activities
# of native/fruit trees planted *	# of recycling bins installed	# of native trees planted *
# of native perennials/annuals/grasses planted *	# of compost bins installed	Kilograms of food waste diverted from landfill (to compost)
# of rain barrels installed	Kilograms of trash/debris removed from school campus or community sites *	# of motion detector lights installed
Square meters planted with native or fruit trees *	Kilograms of food waste diverted from landfill (to compost)	# of LED or energy saving light bulbs installed
Square meters of non-native invasive plants removed *	Kilograms of compost made from school food/garden waste	# of Energy Smart power strips installed
Square meters of turf removed *	# of reusable bottles distributed	Total savings of energy use – include units of measure
Linear meters of bank stabilization *	# of reusable bags distributed	# of bike-to-school days
Kilograms of food waste diverted from landfill (to compost)	# of single use plastic bottles not used due to reusable bottles used at water filtration system	
Kilograms of compost made from school food/garden waste		
# of wildlife habitat structures installed		
# of storm drains stenciled *		
Liters of water reclaimed from use of water catchment system		

MEASURABLE DATA is a program requirement and is included in the evaluation process for final NOAA Ocean Guardian School recognition.

Budget

Grants are awarded for up to $4,000 per school depending on the program region, level of the project and project year. All budget items must directly relate to and support the proposed project including hands-on activities and supplemental learning opportunities.

Grant funds are available for a variety of items including, but not limited to project supplies and materials, signage, field trips (transportation, entrance fees, etc.), teacher stipends, and technology supplies.

Field Trips: Field trips may be included in a project budget; *however, the total field trip budget items may not exceed 30% of the project's total budget.* Field trips must be school sanctioned. Field trips must supplement project activities and learning opportunities. Field trip expenses may include entrance fees and transportation.

Stipends: The Ocean Guardian School grant will fund stipends for teachers, staff, parents, and/or community partners. Stipends may also include payment for substitute teachers needed during project activities. *Total stipends may not exceed 30% of the project's total budget.*

Note: Items purchased with grant funds cannot be directly sold to students or any other school/community members. However, an arrangement is permitted where items (purchased with grant funds) may be "given" in exchange for a monetary "donation" to the school's Ocean Guardian project. This arrangement must be clearly communicated to all participants. For example, in exchange for their $1 "donation" to their Ocean Guardian project, students receive a reusable water bottle (purchased with grant funds) as a gift. In turn, these donated funds should be used accordingly to support the stewardship project.

In the Final Report Survey, Lead Teachers will submit basic budget information (amount of grant award, total amount spent during the project period and amount of remaining funds). This year-end reporting *does not* require receipts for grant-funded expenditures.

Becoming a NOAA Ocean Guardian School

1. **Final Report Survey**: At the end of the school year, the project's Lead Teacher will be required to complete an online Final Report Survey. After the Lead Teacher has submitted a Final Report Survey, the school will be evaluated for recognition as a NOAA Ocean Guardian School.

2. **Recognition Rubric:** The recognition rubric is the basis for awarding NOAA Ocean Guardian School recognition and banners. At the start of the school year, Lead Teachers will receive a copy of the recognition rubric to help track the school's progress towards becoming a NOAA Ocean Guardian School.

   Recognition rubric criteria include:
   Project outcomes, project introduction presentation, project wrap-up, internal and external outreach, measurable date, budget information, project communications, final report survey

3. **NOAA Ocean Guardian School Recognition:** When a school is formally recognized as a NOAA Ocean Guardian School, it will receive a 2'x5' Ocean Guardian School banner. A school will receive a new banner for each year it successful completes the program and is recognized as a NOAA Ocean Guardian School.

Ocean and climate essential principles and fundamental concepts

http://oceanservice.noaa.gov/education/literacy.html

Ocean and climate literacy are central to the mission of the Ocean Guardian School program. In an effort to define these two concepts, many scientists and educators have collaborated to produce *Ocean Essential Principles and Fundamental Concepts* and *Climate Essential Principals and Fundamental Concepts*. They are practical resources for educators, outlining the knowledge required to be ocean and climate literate in accordance with the National Science Education Standards (NSES). Although these are not required Ocean Guardian School program materials, participating schools are strongly encouraged to review and incorporate some of the basic themes that most closely align with its stewardship project.

You are climate literate if you understand the influence of climate on yourself and society and your influence on climate.

A climate-literate person:
- Understands the essential principles of all aspects of the Earth system governing climate patterns that are presented in this document;
- Knows how to gather information about climate and weather, and how to distinguish credible from non- credible scientific sources on the subject
- Communicates about climate and climate change in a meaningful way.

Ocean literacy is an understanding of the ocean's influence on you and your influence on the ocean.

An ocean-literate person:
- Understands the Essential Principles and Fundamental Concepts about the functioning of the ocean;
- Can communicate about the ocean in a meaningful way;
- Is able to make informed and responsible decisions regarding the ocean and its resources.