

Educational Programs

2016 – 2017

The
Hicksville
Gregory Museum

Earth Science

Entomology

Physical Sciences

Long Island Earth Science Center
Heitz Place & Bay Avenue
Hicksville, NY 11801

phone 516 – 822-7505
fax 516 – 822-3227
www.gregorymuseum.org

PLANNING A FIELD TRIP TO THE MUSEUM

Programs last about two hours and may include two of the presentations listed on the following pages. If you have questions about the suitability of a topic or require a custom program, please ask to speak with one of our educational staff. Due to space limitations we are unable to offer tours of two programs from the same letter group--A or B. There are programs suitable for kindergarten through high school. The programs offered in the following categories—**EARTH'S BUILDING BLOCKS; THE DYNAMIC EARTH; SURFACE PROCESSES; PALEONTOLOGY; ENTOMOLOGY**—may be an introductory talk, a hands-on activity or an audio-visual presentation

Tours of 50 students or less may be arranged for our normal weekday operating hours--9:30 to 4:30, Tuesday through Friday.

Reservations should be made at least one to two months in advance. Please call the museum at (516) 822-7505. A few openings may be available for last minute scheduling.

Payment is required at the time of the tour (unless other arrangements are made in advance). **The cost per student is currently \$8.00.** There is no charge for Hicksville schools. Some programs, as noted, may also require a class fee to cover the costs of materials for special projects or collections that go back to the school.

Supervision by one adult (teacher or chaperone) for every ten children is required; there is no charge for these adults. Any adults in excess of the number required will be charged \$8.00 each. Groups which by their nature require more supervision or help will not be assessed these extra fees if the museum is notified in advance.

THE EARTH'S BUILDING BLOCKS

Introduction to rocks and minerals

This program gives an overview of the museum's rock and mineral collection **for grades K –2**. It includes an introduction to the 3 rock groups and some of the many uses of these earth resources. **(A)**

Rocks Learn about them not just as objects, but as stories waiting to be told about the environments where they formed, what they are and why we find them in the places that we do. Also learn about some of their surprising uses. **(A)** For grades 3 –12

Minerals Discover what these chemicals from the earth, sea, and sky are. Learn why they have beautiful shapes and colors, and why they are so useful. **(A)** For grades 3 –12

Exploring minerals A hands-on approach to mineral identification using properties such as shape, color, streak, hardness, density, and conductivity. **(B)** For grades 3 –12

Crystals and symmetry Uncover the secrets of crystals, find out why every mineral is unique in shape, and begin an experiment that will grow spectacular crystal clusters in this hands-on workshop. \$6.00 class fee. **(B)** For grades 3 –12

Rock identification using microscopes, hand lenses and other tools the students will discover the properties that will help them to identify the three basic rock groups and to spot features that tell about the geologic history of individual specimens. **(B)** For grades 3 –12

Scavenger hunt Have fun exploring the museum and its collections while learning about minerals and their many uses. **(A)** For grades 3 –12

THE DYNAMIC EARTH

Volcanoes An introduction to the different types of volcanoes, why they form, and to their spectacular but deadly eruptions. Learn how they benefit and destroy the works of man and nature. **(B)** For grades 3 –12

Earthquakes An introduction to what earthquakes are; where they occur and why; and their effects on human activity and the environment. **(B)** For grades 3 –12

Plate tectonics This look into plate tectonics will help the student to understand why earthquakes occur, how mountains form, and how the continents and oceans have been shaped over time **(B)** For grades 3 –12

SURFACE PROCESSES

Weathering Learn why rocks do not last forever, the ways in which they break down, and the importance of the rock (soil) layer between the living and non-living worlds. **(A)** For grades 3 –12

The Geological History of Long Island (B) For grades 3 –12

Erosion See how gravity, wind, waves, glaciers and rivers transport rock--from large masses to tiny grains--while wearing away not only distant mountain peaks and our coastlines but also the land we live on. **(B)** For grades 3 –12

Glaciers The origin and development of alpine and continental glaciers are illustrated. Learn to recognize the landscapes (many of them seen locally) resulting from glaciation. **(B)** For grades 3 –12

Desert geology Discover the environmental and geologic factors that create deserts, and observe the many unique geologic features associated with them. **(B)**

Beaches and coasts Explore the geologic processes at work in the areas where the oceans meet land. View pictures of local and worldwide examples of the resulting unique landforms. **(B)** For grades 3 –12

The water cycle Learn what water is, its many unique properties, and how it is stored in and moves down and up through the atmosphere and the earth. Find out where the water that we drink comes from and if we have enough of it. We will also explore the problems faced in conserving and protecting our water supply. **(B)** For grades 3 –12

Disaster Geology See how rapid and large scale changes in the physical and chemical systems that make up the oceans, atmosphere and solid earth affect life on earth and how human activity may increase the severity of these events. **(B)** For grades 3 –12

PALEONTOLOGY

Fossils and dinosaurs an introduction for grades K – 2 to what fossils are, how they form and a survey of the museum' dinosaur fossils and what they tell us about these prehistoric animals and the environments that they lived in. **(A)** For grades 3 –12

Fossils The remains of past life in the rocks help define ancient ecosystems, and unravel the history of life. See how animal forms are linked to their habitats and ways of life. Learn some of the reasons for extinction of species. **(A)** For grades 3 –12

Fossil hunt Using proper techniques the class will uncover and identify a set of fossils, and interpret the environments in which they lived, died and were preserved. **(B)** For grades 3 –12

Paleo studies learn how paleontologists excavate fossils from rock in this hands-on program using real specimens, and how to make molds and casts of them. **(B)** For grades 3 –12

ENTOMOLOGY

Introduction to butterflies An overview of the museum' collection of butterflies and moths, their basic anatomy, their life cycle, habits and survival mechanisms. **For grades K– 2.**

Investigating moths and butterflies The development of moths, butterflies, and their ancestors is traced through geologic time. We will compare some of the unique features of butterflies with near and distant relatives, both living and extinct. (A) For grades 3 –12

Metamorphosis Observe in close-up the life cycles of butterflies and moths, and learn how each stage is a near perfect adaptation to its environment . (B) For grades 3 –12

Backyard insect zoo Take a tour through the local insect kingdom and learn about their anatomy, life cycles, lifestyles and survival mechanisms. (B) For grades 2 –12

THE MUSEUM IN YOUR CLASSROOM

Bring the museum to your students with these 45 minute, hands-on programs with museum specimens. Designed as single class programs, topics include: an introduction to fossils; properties and uses of minerals; rocks and their origins; and butterflies and moths. Programs can also be designed around other topics in this brochure. No charge for Hicksville schools.; otherwise \$75 per class (limit 24 students).

SCIENCE AND ENGINEERING EXPO

Every spring, generally in late April, the museum sponsors a science and engineering fair for students in grades 1 through 12. Projects from all branches of the sciences are accepted and must be in the form of an experiment following the scientific method. Engineering projects must be in the spirit of Rube Goldberg —complicated solutions to simple, everyday tasks. More information about the date and time of this year's fair, project criteria, and other entry information may be found on the museum web site (www.gregorymuseum.org) in mid-January.

VOLUNTEER OPPORTUNITIES

for students and adults at the museum cover a wide range of interests and skills. Duties of volunteers may include: assisting the curator with the collections and displays; guiding visitors (after training); office and computer work; and, for teachers and others with a science background, being judges for our science fair. Email (mail@gregorymuseum.org) or phone (516-822-7505) for more details.

HOW TO GET TO THE MUSEUM

FOR GPS DIRECTIONS USE THE FOLLOWING ADDRESS Heitz Place and Bay Avenue, Hicksville, NY 11801

From the Northern State Parkway (Exit 35) or the LIE (Exit 41). Route 106/107 (Broadway) south. At the third traffic light south of the Northern State bear left onto Bethpage Road. At the next light bear right onto Bay Avenue. Go one-half mile south on Bay (past the back of Sears) to a traffic light which is immediately after you go under the railroad trestle. Stay in the right lane to continue south on Bay. The Museum will be directly ahead of you.

From the south on Route 107 or from the west on Old Country Road. At the intersection of Route 107 (Broadway) and Old Country Road--this intersection is 1.6 miles east of the Old Country Road exit from the Wantagh Parkway--go north on Broadway to the second traffic light. Turn right on East Marie Street. Go past the fire station, under the railroad trestle and make your first left (Bay Avenue). The museum is the two story building directly ahead of you.

From the Seaford-Oyster Bay Expressway Rt. 135 Exit 10). At the top of the exit ramp turn west onto Old Country Road towards Hicksville. Go through the intersection with South Oyster Bay Road (one mile west of Rt. 135) and go straight ahead onto Plainview Road (Old Country Road curves off to the left). Drive eight-tenths of a mile to the second traffic signal (Park Avenue) and turn right. Go one long block to a stop sign and turn left onto Heitz Place. The museum will be two blocks straight ahead.

From the intersection of Woodbury Road and South Oyster Bay Road. Drive west on Woodbury Road about one and one-quarter miles (6 traffic signals). At the intersection with Bay Avenue turn left. The museum will be one block straight ahead.