KOPERNIK OBSERVATORY & SCIENCE CENTER

698 UNDERWOOD ROAD, VESTAL, NEW YORK 13850
PHONE (607) 748-3685 * FAX (607) 748-3222 * WWW.KOPERNIK.ORG

Spring Pegasus 2015
Grades 1-12

The Pegasus programs for students in grades 1-12 encourage students to work and think like scientists as they explore the world around them. These workshops emphasize creativity, teamwork, and independent learning and teach students to draw on ***Science, Technology, Engineering and Math resources to solve problems in the real world.***

Meet the Planets *Grades 1-2* Sat., Mar. 28, 1-4 p.m. Member $30/Non-Member $36
What are the planets in our solar system? How big are they? Why are they round? Why is Pluto not a planet anymore? In this workshop, students will work in teams to answer these questions and more. They will observe, compare, and experiment with different planet models, explore the Solar System, and make a model of their favorite planet to take home.

Erupting Volcanoes *Grades 3-5* Sat., Apr. 11, 1-4 p.m. Member $30/Non-Member $36
Did you know that volcanoes occur not only on Earth but also on other planets in our solar system? In this session, students will learn about the powerful force of these smoking mountains as they explore volcanoes around the world and on other worlds, too! Students will build their own volcano, make it erupt, examine volcanic ash under a microscope, and test and classify igneous rocks.

Lights, Camera, Stop Motion! *Grades 6-8* Wed./Thu., Apr. 1/2, 11 a.m.-4 p.m. Member $70/Non-Member $82
In this two-day workshop, students will be introduced to stop motion animation, a technique for making objects appear to move on their own. They will learn about the important elements of this technique, including stop-motion photography, proper lighting, sound recording, and basic video editing. Students then will apply this knowledge and use clay, along with their creativity and imagination, to design and create their own video to tell a story or illustrate a scientific principle. Students will take home a digital copy of their video!

Programming with Arduino *Grades 8-12* Sat., May 16, 10 a.m.-3 p.m. Member $45/Non-Member $54
The Arduino is a tiny programmable computer that can control devices attached to it. Students in this workshop will learn how to use this innovative device, which is popular in Computer Science and Engineering programs around the country. They will be introduced to C or C++, the programming languages that control the Arduino, using pre-written code, and then modify, manipulate, compile, and upload the program to the Arduino. They will use the Arduino to control a variety of devices, including DC and servo motors, LEDs, sound generators, and light sensors from Kopernik's extensive collection of littleBits™ modules.

****** ***Summer Camp Open House -*** *Saturday, April 25, 1-4 p.m.* ******
Preview Kopernik's summer science and engineering camps for students in grades 1-12. Activities include: Animated Lego Robotics, Snap Circuits, and more! See www.kopernik.org for details and registration.

Please check the session(s) you plan to attend: ❑ Meet the Planets (March 28) ❑ Volcanoes (April 11) ❑ Stop Motion (April 1/2) ❑ Arduino (May 16)

Student name: _____ Grade (2014/15) _____

Parent/Guardian/Grandparent name: _____ Birth Date _____

Address: _____ City/ST/ZIP _____

Phone: _____ Email: _____

Enclosed is: $_____ **(checks payable to "*Kopernik Observatory*")** KOSC Member ❑ Yes ❑ No ❑ (add $60 to join)

Credit Card # _____ ❑ Visa ❑ MasterCard ❑ Discover

Name on Credit Card _____ Expiration Date: _____ CVV code (3 digit code) _____

Registration form and fee must be received one week prior to class. Walk-in registrations available, space permitting, with additional $5 fee. Minimum enrollment 10 students required for each class to run. In case of cancellation, participants will be notified in advance and full refund returned. Refunds available (less $5 administration fee) if student withdraws seven days prior to the start of the class.

Return to: Spring Pegasus, KOSC, 698 Underwood Road, Vestal, NY 13850

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