



PISGAH
ASTRONOMICAL
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INSTITUTE

Homeschool Day at PARI

Friday, November 18, 2011

Time	Level – Program - Instructor	Location
9:30 – 10:00 am	Check-in	Cline Administration Building (CAB) - Lobby
10:00 – 10:45 am	K-2 All Charged Up – Dennis 3-5 All Charged Up - Patterson 6-8 Reach for the Stars - Castelaz 9-12 Reach for the Stars - Whitworth	CAB – Downstairs Lab CAB – Multimedia Room CAB – Control Room Building 3 – StarLab
10:45 – 11:30 am	K-2 All Charged Up – Dennis 3-5 All Charged Up - Patterson 6-8 Reach for the Stars - Whitworth 9-12 Reach for the Stars - Castelaz	CAB – Downstairs Lab CAB – Multimedia Room Building 3 – StarLab CAB – Control Room
11:30 – 12:00 pm	K-2 Lunch 3-5 First in Flight - Patterson 6-8 Lunch 9-12 Gravity Vehicle - Castelaz	Cafeteria Outside/ CAB – Multimedia Room Cafeteria Outside/Building 3 - StarLab
12:00 – 12:30 pm	K-2 First in Flight - Dennis 3-5 Lunch 6-8 Gravity Vehicle - Whitworth 9-12 Lunch	Outside/ CAB – Multimedia Room Cafeteria Outside/Building 3 – StarLab Cafeteria
12:30 – 1:15 pm	K-2 Sky Quest - Castelaz 3-5 Sky Quest StarLab - Whitworth 6-8 Shock Value – Dennis 9-12 Shock Value - Patterson	CAB – Control Room Building 3 – StarLab CAB – Downstairs Lab CAB Multimedia Room
1:15 – 2:00 pm	K-2 Sky Quest StarLab - Whitworth 3-5 Sky Quest - Castelaz 6-8 Shock Value – Dennis 9-12 Shock Value - Patterson	Building 3 – StarLab CAB – Control Room CAB – Downstairs Lab CAB – Multimedia Room
2:00 pm	Wrap-Up and Group Picture	26-East Radio Telescope



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Welcome to Homeschool Day at PARI – We hope that you and your children enjoy your day and find it very educational.

Basic Information:

Parents/Chaperones: No child may attend a program unaccompanied by a responsible parent/chaperone. If you have more than one child in your family/group who are in different grade level groups and will be going to different programs at the same time, you must have a parent/chaperone for the child(ren) going to each program. Groups must have at least one parent/chaperone for each four children. There is no charge for parents/chaperones. Exceptions will be made for high school age students, when younger children are part of the same group.

Restrooms: Restrooms are available in The Cline Administration Building (#1), The StarLab Building (#3) and the Cafeteria (#29).

Accessibility: All facilities are handicap accessible.

Lunch in the Cafeteria (Building 29): You and your children may use the cafeteria to eat your lunch. Soft drinks are available for \$.60 from the machine in The Cline Administration Building. We also suggest that groups participate in the Galaxy Walk during their lunch or visit the exhibit gallery in the Cline Administration Building.

Photographs: Photographers will be documenting the activities of Homeschool Day at PARI throughout the day. Photographs will be used by PARI for our web site, brochures and possible publicity. If you are not interested in having your child photographed, please let the photographer or a PARI staff member know before their picture is taken.

Program Evaluation: At the end of the day, please complete the Program evaluation form online. This will help us to improve our future programs for homeschoolers.

PARI Teaching Staff:

Dr. Michael Castelaz – Science Director
Christi Whitworth – Education Director
Derek Dennis – Science Educator
Ralph Patterson – Science Educator

If you have any questions, ask for Dr. David Clavier, Vice President of Administration and Development.

Contact Information: For additional information contact Dr. Dave Clavier at e-mail dclavier@pari.edu or telephone 828.966.4097.



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Grades K-2

All Charged Up!

Students will explore the interaction of multiple magnets to develop an understanding of attraction and repulsion, magnetic poles, positive and negative charges. Students will conduct tests to identify magnetic substances. Students will build a working electromagnet using simple components.

First in Flight

Teams of students will design, construct, and fly two paper airplanes. One plane is to be designed for the maximum time in the air, the other is to be designed for the longest distance traveled.

Sky Quest - StarLab

Students will practice identifying and confirming the major constellations and major stars used in the Sky Quest competition.

Sky Quest

Students will explore the differences between satellites, asteroids, meteors and comets.



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Grades 3-5

All Charged Up!

Students will explore electrical circuits in series and parallel. Students will find that electrical charge is conserved in an electrical system. Students will diagram a simple circuit to light a light bulb.

First in Flight

Teams will design, construct, and fly two paper airplanes. One plane is to be designed for the maximum time in the air, the other is to be designed for the longest distance traveled.

Sky Quest - StarLab

Students will practice identifying and confirming the major constellations and major stars used in the Sky Quest competition.

Sky Quest

Students will explore the physical reasons seasons occur on Earth.



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Grades 6-8

Reach for the Stars - StarLab

Students will practice identifying and locating stars and constellations from the Reach for the Stars competition.

Reach for the Stars

Students will explore the evolution of stars, open and globular clusters.

Gravity Vehicle

Teams will explore factors that change how far a car will run after rolling down a ramp. Students will change the weight, weight placement, and the ramp angle and length to maximize results.

Shock Value!

Students will learn to utilize a multimeter to measure electrical currents. Students will learn the basics of electricity (voltage, current, circuits). Students will conduct an investigation into Basic Electrical currents and circuits with goal of building a working circuit.



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**Homeschool Day at PARI
Friday, April 29, 2011**

Grades 9-12

Reach for the Stars - StarLab

Students will practice identifying and locating stars and constellations from the Reach for the Stars competition.

Reach for the Stars

Students will explore the evolution of open and globular clusters and normal and star-forming galaxies.

Gravity Vehicle

Teams will explore factors that change how far a car will run after rolling down a ramp. Students will change the weight, weight placement, and the ramp angle and length to maximize results.

Shock Value!

Students will learn to utilize a multimeter to measure electrical currents. Students will learn the basics of electricity (voltage, current, circuits). Students will conduct an investigation into Basic Electrical currents and circuits with goal of building a working circuit to light a light bulb.