

Harrisburg Science Festival - April 11, 2005
Mars -- the Next Expedition

Come join the fun and experience of science as offered by Harrisburg Science Festival supporters including Harrisburg University, The Whitaker Center for Sciences and the Arts, Sci-Tech High School, The Mayor's Office, The Jason Foundation, Building a Presence for Science in PA, Giant Foods, Project Jason, Advancing Science from Gettysburg College, PSU Capital Area Institute for Math and Science, Messiah College, and Space Grant College at PSU Main Campus. Interesting science and technology exhibitions and robotic competitions will highlight this day.

General Information:

- The Whitaker Center for Sciences and the Arts is the brown stone building at the corner of Market and Third Street
- Sci-Tech High and Harrisburg University are at 215 Market Street across from the Whitaker Center
- LUNCH: On your own. We recommend that you have lunch sometime between 11 AM and 1 PM. You may purchase lunches at the various vendors at Strawberry Square and in restaurants along Market Street. There are benches along the river and in the park by the capital to enjoy a lunch.
- BATHROOMS: Public restrooms are in Whitaker Center and Strawberry Square on both levels.

Maps of downtown Harrisburg can be downloaded at:

<http://www.mapquest.com/maps/map.adp?searchtype=address&country=US&addtohistory=&searchtab=home&address=215+Market+Street+&city=Harrisburg&state=pa&zipcode=> or

<http://maps.google.com/maps?q=Harrisburg%2C%20PA&ll=40.258644%2C-76.881325&spn=0.006668%2C0.013605&hl=en>

Logistics for buses dropping off students:

See: http://www.whitakercenter.org/science/Educators%20Guide/0904_Educators%20Guide_Directions%20and%20Contacts.asp

Parking is available for cars in many garages and on City Island, which is just a 10-minute walk from the Science Festival
Harrisburg Parking Authority Lots: see <http://hpaparking.homestead.com/map.html>

BUSES: Park for a fee on City Island.

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ROOM/BLDG	9-9:45	10-10:45	11-11:45	12-12:45	1-1:45
Sci-Tech High Foyer	Sci-Tech Tours (general)	Sci-Tech Tours (general)	Keynote in Sunoco Center of Whitaker	Sci-Tech Tours (general)	Sci-Tech Tours (general)
Sci-Tech High Resource Room-first floor	Martian Crater Simulation Activity and overview of Jason Foundation and Resources	Martian Crater Simulation Activity and overview of Jason Foundation and Resources	Keynote in Sunoco Center of Whitaker	Martian Crater Simulation Activity and overview of Jason Foundation and Resources	Martian Crater Simulation Activity and overview of Jason Foundation and Resources
Sci-Tech High Rm 127	Careers in Aerospace and film (HS) Dr. David Durwin	Careers in Aerospace and film (HS) Dr. David Durwin	Keynote in Sunoco Center of Whitaker	Careers in Aerospace and film (HS) Dr. David Durwin	Careers in Aerospace and film (HS) Dr. David Durwin
Sidewalk in front of Sci-Tech High	Student Demonstrations (Middle)	Student Demonstrations (Middle)	Keynote in Sunoco Center of Whitaker	Student Demonstrations (Middle)	Student Demonstrations (Middle)
Sidewalk in front of Sci-Tech High	Is there life on Mars? Harrisburg University	Is there life on Mars? Harrisburg University	Keynote in Sunoco Center of Whitaker	Is there life on Mars? Harrisburg University	Is there life on Mars? Harrisburg University
Sidewalk in front of Sci-Tech High	Lost Valley Inferential Learning about how science works	Lost Valley Inferential Learning about how science works	Keynote in Sunoco Center of Whitaker	Lost Valley Inferential Learning about how science works	Lost Valley Inferential Learning about how science works
Sidewalk in front of Sci-Tech High	Model Rocket Display	Model Rocket Display	Keynote in Sunoco Center of Whitaker	Model Rocket Display	Model Rocket Display
Sci-Tech High Sidewalk	NASA Rovers PSU Space Grant	NASA Aerospace Research in Pennsylvania	Keynote in Sunoco Center of Whitaker	NASA Aerospace Research in Pennsylvania	NASA Aerospace Research in Pennsylvania
Sci Tech High Sidewalk Display	Robot Display		Keynote in Sunoco Center of Whitaker		Robot Display
Sci Tech High Sidewalk	Harrisburg University Admissions Desk and material (HS)	Harrisburg University Admissions Desk and material (HS)	Harrisburg University Admissions Desk and material (HS)	Harrisburg University Admissions Desk and material (HS)	Harrisburg University Admissions Desk and material (HS)

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Sci Tech High Curb	Solar racing boat Messiah College	Solar racing boat Messiah College	Keynote in Sunoco Center of Whitaker	Solar racing boat Messiah College	Solar racing boat Messiah College
Whitaker Lobby		Robotic Competition Mine Sweeper	Keynote in Sunoco Center of Whitaker	Robotic Competition Maze Runner	
Whitaker 2nd level lobby	Motion/ Design PSU-CAIMS	Variables PSU-CAIMS	Keynote in Sunoco Center of Whitaker	Variables PSU-CAIMS	Motion/ Design PSU-CAIMS
Sunoco Performance Center -- Whitaker 1st floor			Mars Expedition: Jason Initiatives leading to the Mars Expedition – Michael DiSpezio Jason Foundation		
I-Max Theatre Register in advance Whitaker 2nd level		Australia (\$7.00)	Keynote in Sunoco Center of Whitaker	12:15-Australia (\$7.00)	1:30- Forces of Nature (\$7.00)
Whitaker Curb	Liquid Nitrogen Demonstrations, Advancing Science Van: Jack Sipe	Liquid Nitrogen Demonstrations, Advancing Science Van: Jack Sipe	Keynote in Sunoco Center of Whitaker	Liquid Nitrogen Demonstrations, Advancing Science Van: Jack Sipe	Liquid Nitrogen Demonstrations, Advancing Science Van: Jack Sipe
Whitaker Street-	Whitaker on Wheels- (general) Watch high energy demonstrations	Whitaker on Wheels- (general) Watch high energy demonstrations	Keynote in Sunoco Center of Whitaker	Whitaker on Wheels- (general) Watch high energy demonstrations	Whitaker on Wheels- (general) Watch high energy demonstrations
Whitaker Sidewalk Display	“Stars” Display (General) Youth Volunteers do science with guests	“Stars” Display (General) Youth Volunteers do science with guests	Keynote in Sunoco Center of Whitaker	“Stars” Display (General) Youth Volunteers do science with guests	“Stars” Display (General) Youth Volunteers do science with guests

Other points: People can plan their own experience. Students with yellow tee shirts will provide assistance.

Description of Activities

Sci-Tech Tours: Conducted by teams of Sci-Tec students and appropriate for everyone. See the building and visit at least one of the labs. (Coordinated by Ms. Margaret Burton, Assistant Director of Sci-Tech High School) (General)

Martian Crater Simulation Activity and overview of Jason Foundation and Resources: Conducted by Mr. Edward Owens, science curriculum specialist with the Capital Area Institute for Math and Science and facilitator for the Jason Project (Middle and High School)

Careers in Aerospace Engineering: Dr. David Durwin, an aerospace engineering specialist from Great Britain, will discuss the industry and career options with interested students. Harrisburg University has graciously made him available for this festival. (Middle and High School)

Student Demonstrations: Student teams from Sci-Tech High and their teachers will be presenting demonstrations and engaging activities that deal with force, motion, and space travel and exploration. (General audience)

Is There Life on Mars? Join Harrisburg University's Dr. Robert Furey who will show some critical research being done on earth to simulate the Martian conditions. Important implications of this research will be shared. (HS)

Lost Valley: This display of artifacts from a valley in Cumberland County is mysterious and requires us to make careful observations and inferences. As exploration continues on Mars, this same type of inquiry will be needed to investigate the findings. Jeff Kottmyer (jeffkottmyer@yahoo.com) or Mary Kay Doyle (natureswaybonsai@comcast.net) (General)

Model Rocket Display: Just as it sounds and presented by Tom Ha (tha@americhoice.org) (General)

NASA Aerospace Research in Pennsylvania: Presented by leaders from Space Grant College at PSU Main Campus, you will learn about the many research projects underway in Pennsylvania and upcoming NASA events. Angela Phelps, Assistant Director (General)

Robot Display: Robots of interest will be running on the sidewalk with their creators explaining how they were built. (General)

Harrisburg University Admissions Desk and material (HS): The University counselors will be present with their information about this new opportunity in advanced science and biotechnology for the region. (HS)

Solar racing boat: Listen to Dr. Pratt and his engineering and design students from Messiah College explain how they designed and built the solar racing boat for the “Solar Splash” International Solar Powered Boat Race. Modifications to the boat to improve its efficiency will be shown. (Middle and high school)

Motion/ Design/Variables: Learn how important process skills in science are used in physical science by seeing selected activities in these exemplary science modules that many schools in the region are beginning to use. Presented by Mr. Richard Close and Dr. Kathleen Blouch, GEMS and FOSS facilitators. (Elementary and Middle)

KEY NOTE SPEECH Mars Expedition: Jason Initiatives leading to the Mars Expedition –Michael DiSpezio, Specialist with the Jason Foundation and a leading developer of the JASON Academy. Michael DiSpezio is one of the most recognized, entertaining and sought-after presenters at educator conferences throughout the world. In addition to offering his unique style of dynamic, theatrical, and often interactive presentations, he is a prolific author with over thirty published trade books and an equal number of science textbook co-authorships. As all agree, his enthusiastic, and high-energy style is an infectious vehicle for his delivery of a wide range of topics. Michael's research science background, days on the stage, and over a decade in his most noble career as a classroom teacher, have produced a speaker's speaker. Exploiting his background as a science writer and educational consultant for organizations that range from the Discovery Channel to the World Bank, Michael carries his messages with validity and resolution.

See: <http://premierespeakers.com/3108/index.cfm>

Liquid Nitrogen Demonstrations, Advancing Science Van from Gettysburg with Jack Sipe Guests will see unusual and interesting properties of material when cooled to -170°C (General)

Rocketry Basics: Advancing Science Van from Gettysburg with Jack Sipe. Demonstrations showing Newton's forces at work that effect all moving objects. Selected demonstrations will illustrate these concepts. (General)

High Energy Demonstrations: Presented by Whitaker on Wheels staff (General)

“Stars” Display Youth Volunteers from Whitaker center do science activities with guests (General)

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Robotic Competition: Watch how students have crafted robotics to perform specific functions. William Bechtel coordinates this with help from the Central PA Robotics Club. Prizes are from Jan Cipkala at Merkur (jc2512@bellsouth.net). (General)

Support Agencies and Contacts:

Agency, Person and Title	Address	Phone	E-Mail
Mayor's Office Glenda Keller Randy King, Press Secretary		717-255-3024	
Harrisburg University Dr. Robert Furey, Professor of Integrative Sciences	215Market Street Harrisburg, PA 17101	717-901-5132	rfurey@harrisburgu.net
Whitaker Center for Science and the Arts: Laurie Lauver, Director of Education	222 Market St. Harrisburg, PA 17101	717-221-8201-1144	llauver@whitakercenter.org
Sci Tech HS: Margaret Burton Assistant Director Sci-Tech High School	215Market Street Harrisburg, PA 17101	w 717.346.6553 c 717.554.5215	mburton@hbgasd.k12.pa.us
Jason Foundation Dr. Brenda J. Blackston, SE Regional Manager	3310 Sang Road Glenwood, MD 21738	W: 843-237-2184 C:843-222-0256	Brenda@jason.org
Michael DiSpezio		H:508-360-2591 w:508-563-7901	icaris@aol.com

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Capital Area Institute for Math and Science at PSU Harrisburg Edward Owens Science Curriculum Specialist	Olmstead W351 777 W. Harrisburg Pike Middletown, PA 17057	717-948-6206 c 717-385-7110	ewens@psu.edu
Gettysburg College Science in Motion Jack Sipe, Mobil Educator	300 North Washington St. Gettysburg, PA 17325-1495	717-337-6166	jsipe@cc.gettysburg.edu
South Middleton School District William Bechtel, Science Teacher	Forge Road Boiling Springs, PA 17007	717-258-6484	wjb@mail.bubblers.k12.pa.us
Pa Engineering Society	Steve Roman	717-730-6032	
PSU Space Grant Dr. Lisa Brown, Director Angela Phelps, Assistant Director	Frear Building State College, PA 16802 http://www.psu.edu/spacegrant/	814-863-7687	brown@essc.psu.edu
Messiah College: Dr. Don Pratt,	Box 3000 Grantham, PA 17027	766-2511 x 7169	Dpratt@Messiah.edu
Department of Education Dr. Kip Bollinger, Science Advisor	333 Market Street Harrisburg, PA 17126-0333	717-783-6598	Gbollinger@state.pa.us
Pennsylvania Department of Education; Bethany Yenner, Press and Communication Office	333 Market Street Harrisburg, PA 17126-0333		byenner@state.pa.us

Festival support comes from: Harrisburg University, The Whitaker Center for Sciences and the Arts, Sci Tech High, The Mayor's Office, Building a Presence for Science in PA, Giant Foods, Project Jason, Advancing Science from Gettysburg College, PSU Capital Area Institute for Math and Science, Messiah College, Merkur Company and Space Grant College at PSU Main Campus.

PDE supports the Harrisburg Science Festival for several reasons. Most importantly, Harrisburg School District is committed to providing challenging and engaging education to its students. The fact that this school district has found an exciting way to involve its students in quality science serves as stimulus to other schools in the region and state. It is important to see the use of engaging, active learning, which is well supported by current research. The Sci-Tech High uses exemplary curricula and models the type of learning our students need to be successful in tomorrow's world of work and academe. Additionally, PDE is committed to improving the effectiveness of high schools in the state through Project 720. Harrisburg is participating in this project.