

National Aeronautics and Space Administration



EDUCATOR RESOURCE CENTER

Summer 2009

ERCO

National Aeronautics and  
Space Administration

**John C. Stennis Space Center**  
Educator Resource Center  
Building 2105  
Stennis Space Center, MS 39529-6000

**Please Route to All Educators**

# NASA's Aerospace Academy

## Professional Development for K-8 Educators

This three-day professional development workshop for K-8 educators is designed to provide an overview of NASA educational resources in a themed approach. Kids of all ages are fascinated with space travel and the challenges we face for returning to the moon and preparing for a trip to Mars! Use NASA to get your students "hooked on science, technology, engineering and math (STEM)."

Teachers can register for any or all of the six workshops in this Aerospace Academy series. Each session is 2.5 hours long, so in order to receive CEU credit, a participant MUST attend at least two (2) sessions. If all 6 sessions are completed, the participant earns 1.5 CEUs.

All active and pre-service educators are welcome to attend; however, the target grade range for the activities will be kindergarten through eighth grade (K-8).

### Day 1: June 23

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Morning (8:30 - 11:00 am)

#### **Rocketry:** *Blastoff into Learning*

You don't have to be a rocket scientist to have a blast at this workshop! Rocketry is the theme, as participants are introduced to Newton's Laws of Motion and NASA's newly revised curriculum guide, Rockets. Participants will design, build, and launch simple rockets to develop a better understanding of the basic principles of force and motion.

Afternoon (1:00 - 3:30 pm)

#### **Living & Working in Space** *Blastoff into Learning*

How astronauts live and work in space is a fascinating topic for kids of all ages. Engage your class with fun-filled hands-on activities about astronaut training, food preparation, exercising, sleeping and working in space. Participants will learn a variety of inquiry-based activities that translate the NASA experience into meaningful science applications for their students.

### Day 2: June 24

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Morning (8:30 - 11:00 am)

#### **The Sun:** *Our Very Own Star*

The Sun, our closest star, is the theme of this workshop as educators develop a better understanding of the processes which govern the sun's influence on our solar system. Educators will build a sun clock that uses shadows to tell time, make a bracelet for detecting invisible ultraviolet radiation, and much more. Bring a little sunshine into your classroom with NASA educational curriculum resources!

Afternoon (1:00 - 3:30 pm)

#### **The Moon:** *Going on a Lunar Adventure*

Come take a tour of the Moon as NASA celebrates the 40th anniversary of the first lunar landing. Participants will revisit the Moon as during the Apollo days and learn NASA's plans for a return trip. Using NASA curriculum materials, teachers will model a variety of fun-filled activities, such as edible Moon phases and moon craters that will intrigue students into learning the science behind NASA's next adventure.

### Day 3: June 25

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Morning (8:30 - 11:00 am)

#### **The Solar System:** *Destination Mars*

Is there life on Mars? What is it like to operate a rover on Mars? A trip to Mars is a compelling topic that will engage your students into wanting to learn more about the science, technology and engineering challenges necessary to send the first human to the red planet. Participants will design a Mars critter and remotely operate a LEGO-TM robot from a distance just like NASA scientists.

Afternoon (1:00 - 3:30 pm)

#### **Aeronautics:** *Come Fly with NASA*

The subject of flight has a wonderful power to inspire learning. Who hasn't wanted to soar like a bird? Aeronautics, the study of flight and operation of aircraft, will be the theme of this up-lifting workshop. Educators will learn how their students can explore the nature of flight with fun and simple hands-on classroom activities, such as building and flying a kite and a hot air balloon. Come fly with NASA and experience some real-life applications of mathematics, science, and technology.

View the Workshop Schedule online at <http://education.ssc.nasa.gov/workshops.asp>

**June 2009**

MON	TUE	WED	THU	FRI
1	2	3	4	5
8	9	10	11	12
15	16	17	18	19
22	23	24	25	26
	NASA's Aerospace Academy			
	Rocketry / Living & Working in Space	The Sun / The Moon	The Solar System / Aeronautics	

**July 2009**

MON	TUE	WED	THU	FRI
		1	2	3
6	7	8	9	10
13	14	15	16	17
20	21	22	23	24
	Apollo 40th Anniversary (K-4 & 5-8) (separate workshops)		Science in a Bottle (K-8)	
27	28	29	30	

**July Workshops**

**NASA Apollo 40th Anniversary:  
Celebrate Apollo, Exploring the  
Moon, Discovering Earth**

Tuesday, July 21, 2009  
Two workshops offered: K-4 and 5-8  
8:30 am - 2:30 pm  
0.5 CEU's

"That's one small step for a man, one giant leap for mankind." These historic words were spoken as humans ventured beyond Earth's orbit and set foot on our moon.

This workshop will celebrate those events beginning 40 years ago as part of the Apollo program which delivered the first human "tourists" to explore our moon.

Utilizing NASA education resources and grade-level appropriate hands-on activities, we'll explore the Apollo program and its impact on future space exploration, specifically the NASA Constellation Program that will bring humans back to the moon. We will also learn how the Apollo program has benefited each person on Earth with "spinoffs" that we use each day.

Participants will also become certified to bring the excitement of actual lunar samples into their classrooms as an "extra-terrestrial" instructional tool.

Join us in this exciting, interactive workshop and become a "certified lunatic."

**Please note:** There will be two separate workshops held at the same time: one for grades K-4 and one for grades 5-8. When registering, please specify which grade level you wish to attend.

**Science in a Bottle**

Thursday, July 23, 2009  
Grades: K-8  
8:30 am - 2:30 pm  
CEU's: 0.5

How many different science lessons can you teach with a 2 liter plastic soda bottle? Participants will build a variety of inexpensive and creative science experiments that will engage students, motivate questions and lead to further inquiry. A wide range of science topics will be explored. Come to this make and take workshop with as many clean, empty soda bottles (of all sizes) as you can recycle.

*NASA explores for answers  
that power our future!*

[www.nasa.gov](http://www.nasa.gov)

Visit the  
Apollo 40th Anniversary  
Web site

[http://www.nasa.gov/mission\\_pages/apollo/40th](http://www.nasa.gov/mission_pages/apollo/40th)

**It's time to register for free educator workshops at Stennis Space Center**



## **How to Register for Free Workshops At John C. Stennis Space Center**

To make reservations, call the NASA Educator Resource Center at 800-237-1821 and select option 2, or call 228-688-3338. Please call between 7 a.m. and 3 p.m. Monday through Friday. Unless otherwise noted, all 0.5 CEU workshops will be held 8:30 a.m. - 2:30 p.m. National and state education standards will be addressed in science, technology, engineering, mathematics and geography in the workshops. For more information, e-mail [SSC-nasaERC@mail.nasa.gov](mailto:SSC-nasaERC@mail.nasa.gov).

### **Notes on Stennis Space Center Educator Resource Center Workshops**

Stennis Space Center ERC personnel consistently strive to ensure as many teachers as possible have access to SSC educator workshops. In order to maximize attendance at all workshops and events, please note the adjustments made to our registration procedures: Teachers may register for no more than three (3) workshops per semester and may only make registrations for themselves. If a participant is unable to attend a workshop, he or she must call the ERC at 228-6883338 as soon as possible. Failure to notify the ERC of a registration cancellation will affect a registrant's ability to participate in future workshops and programs.

For security purposes, you are required to check in at either the north or south reception center upon arrival at Stennis Space Center. A valid photo ID is required. Please allow sufficient time for this process when you arrive.

### **CEU Information**

Mississippi and Louisiana educators are able to renew their teaching certificates with CEU credits from approved workshops. Unless otherwise noted, educators will receive 0.5 CEU credits for each 5-hour workshop conducted on-site. You must be present for the full workshop to earn CEU credit. The ERC maintains all CEU records. The ERC issues a certificate of attendance when the educator completes a 5-hour workshop. This certificate, along with any other CEU documentation, should be mailed by the teacher to the State Department of Education at the time of renewal. To obtain a copy of your CEU credits, a written request must be sent to the ERC.

### **New Safety Regulation**

Please note that the use of hand-held communication devices (cell phones, two-way radios, etc.) is prohibited while driving on-site at Stennis Space Center.