

Dear Student:

The Educational Programs Office (EPO) at the NASA Glenn Research Center (GRC) invites you to participate in the **Exploring Program**.

GRC will sponsor four Explorer posts concentrating on activities associated with different careers. The Explorer posts are as follows:

- Post 630—Aeronautics Activities (aviation activities focusing on aerodynamics)
- Post 631—Computer Technology (personal computing)
- Post 632—Balloon Sat Technology (students construct data acquisition balloons)
- Post 633—Human Space Flight (robotics/communications/human health)

You and your parents or guardians are invited to attend our Open House/Registration meeting on **Tuesday, September 21, 2010, from 5:30 to 7:30 p.m.**, in the building 3, auditorium at NASA GRC, 21000 Brookpark Road, Cleveland, OH.

During this meeting, we will discuss program plans and activities, answer your questions, and complete the registration process. Explorer participants must be U.S. citizens, at least 14 years of age, and have completed the eighth grade. The program is scheduled to begin at the end of September 2010 and continue through the end of April 2011. NASA Explorers will meet for 2 hours, once per week, on weekday evenings. Meeting dates and times will be discussed at the Open House.

Please note, registration for the Exploring Program is \$25 and should be brought to this meeting to expedite enrollment. Enrollment fees will be accepted in the form of **cash only**. **NO CHECKS WILL BE ACCEPTED.**

Open House attendance is mandatory for participation in the program. Please call the GRC EPO at 216-433-6656 no later than Friday, September 17, 2010, to confirm your attendance at the Open House/Registration meetings. For security reasons, we must have your name (and the name of anyone in your party) on our guest list. Additionally, all attendees must present a photo ID upon arrival at GRC (children excluded).

If you have any questions or concerns, please contact me at 216-433-8006. I hope to see you on September 21, 2010.

Sincerely,

Stephanie D. Brown-Houston
Exploring Program Manager
Educational Programs Office



NASA GLENN RESEARCH CENTER

2010–2011 EXPLORING PROGRAM

Program Description

The Exploring Program is a collaborative undertaking of Glenn Research Center's (GRC) Educational Programs Office (EPO) and the Boy Scouts of America (BSA). This educational program provides exposure to research and technology activities specific to GRC and is designed to promote students interest in science, technology, engineering, and mathematics (STEM).

Exploring is part of Learning for Life's career education program, affiliated with the BSA, for young men and women who are 14 (and have completed the eighth grade) through 20 years old. Explorer posts are usually initiated by local community organizations by matching their expertise, people, and resources to that of interests of young people in the community.

NASA GRC in collaboration with the BSA, has hosted Explorer posts since the 1970s. GRC volunteers, who serve as Exploring Advisors, lead these posts and meet once a week from October through April to explore various aspects of science, engineering, technology, NASA, and the GRC.

Program Goal

The primary goal of the Exploring Program is to expose students to different career choices. The primary goal of NASA GRC Explorer posts is to expose students to various aspects of STEM career challenges within NASA and GRC.

The EPO is committed to increasing the number and diversity of students from underrepresented and underserved communities in NASA-related STEM fields. Traditionally, underrepresented groups in STEM include females, African-Americans, Hispanics, Native Americans, Pacific Islanders (natives of the Philippines, Guam, American Samoa, or Micronesia), and disabled students. **Please be advised that while the program is open to all equally qualified candidates**, GRC is very interested in recruiting applicants who belong to a recognized underrepresented group in STEM.

Glenn Research Center

The NASA vision is to improve life here, to extend life to there, to find life beyond and the NASA mission is to pioneer the future in space exploration, scientific discovery, and aeronautics research. As 1 of NASA's 10 field centers, GRC at Lewis Field supports all NASA missions and the major programs of our Agency.

GRC is located in the Great Lakes region of Ohio and occupies a 350-acre site adjacent to Cleveland Hopkins International Airport. The Center comprises over 140 buildings that contain a unique collection of world-class facilities. NASA GRC also includes the 6400-acre Plum Brook Station near Sandusky, Ohio.

GRC works as a diverse team in partnership with government, industry, and academia to increase national wealth, safety, and security, protect the environment, and explore the universe. As NASA moves forward to fulfill the Vision for Space Exploration, GRC is focusing on efforts related to exploration systems, such as technological advancements in spaceflight systems, aeropropulsion, space propulsion, power systems, nuclear systems, communications, and human research.

Eligibility Requirements

- The applicant must be a U.S. citizen and 14 years old (and have completed the eighth grade) by the program start date (October 4, 2010).
- The applicant must be a permanent resident of Northeast Ohio and be able to attend the weekly meetings.
- The applicant must be recommended by a math and science teacher to participate.

Program Requirements

- Students who were 2009–2010 program participants must submit an application and meet the eligibility requirements.
- Students who participated in the same post for 2 years must select a different post unless special permission is given.
- Students and parent(s)/guardians(s) are required to attend the Open House registration meeting and the orientation.
- Students are expected to adhere to the tenure period (October to April); no exceptions.
- Students must complete a Student Profile and Program Feedback form. Completion of these forms is a program requirement, as your feedback is integral to the success of our programs.

Application Information

Students seeking to participate in this program must submit a completed application at the Open House event on September 21, 2010, at 5:30 p.m., which will be held in the building 3 auditorium, at the address below. **Dues for the program are \$25 per post membership (multiple membership is permitted if slots are available). No personal checks will be accepted for program dues.**

NASA Glenn Research Center
21000 Bookpark Road
Cleveland, OH 44135–3191

The four activity groups in the Glenn Exploring Program are

Post 630, Aeronautics Activities

Youth in this group explore the basic principles of aerospace vehicles and propulsion systems. The meetings/discussions are led by Glenn engineers and are held at a NASA GRC site. Past activities have included gas turbine engine experiments, wind tunnel model development and testing, various computer model developments, model rocket development, and testing and free flight launches.

Post 631, Computer Technology

Youth in this group participate in computer activities based on individual ability level. They learn about invigorating fields in computer technology such as animation and robotics as well as programming and graphics. They are also exposed to the basic architecture of computers.

Post 632, Balloon Sat Technology

Youth in this group build, test, launch to 100,000 ft, and recover a payload. Students will have a chance to develop and fly payloads for a flight mission like that of a sounding rocket. They will learn about the atmosphere, experiment design, electronics, and communications associated with the mission. They will develop and fly a Balloon Sat payload into the midstratosphere, nearly 20 miles above the ground.

Post 633, Human Space Flight

Youth in this group, through hands-on activities, explore the technology required to send astronauts to Mars and discover interesting things such as what is required to ensure astronaut health in space.

Program Dates

Post 630—October 5, 2010

Post 631—October 14, 2010

Post 632—October 6, 2010

Post 633—October 13, 2010

Program Selection Process

Selection in this program is based on the following:

- Eligibility
- Application completeness and accuracy and that deadlines are met
- Student preference according to first, second, or third choices

Print last name, first name, middle initial _____

School Information

Name and complete address of high school (*Do not abbreviate school name.*) Check if homeschooled

School name	Street address	
City	State	Zip code
School e-mail address _____	Academic level as of fall 2010	
	<input type="checkbox"/> 9th grader <input type="checkbox"/> 10th grader <input type="checkbox"/> 11th grader <input type="checkbox"/> 12th grader	
	Planned graduation date _____	

Placement Information

I am interested in the following activity groups: rank in order of preference 1 to 3 (1 is the highest and 3 is the lowest)

_____ Aeronautics Activities—Post 630

Tuesday, 5 to 7 p.m.

_____ Balloon Sat Technology—Post 632

Wednesday, 5 to 7 p.m.

_____ Human Space Flight—Post 633

Tuesday, 5 to 7 p.m.

_____ Computer Technology—Post 631

Thursday, 5 to 7 p.m.

Check those that apply to you:

- I have been in the Computer Technology post for _____ years
- I have been in the Aeronautics Activities post for _____ years
- I have been in the Balloon Sat Technology post for _____ years
- I have been in the Human Space Flight post for _____ years

Comments: _____

Have you previously applied for or participated in a NASA program? Yes No ✓ Check any of the following NASA programs you have previously applied for (A) or participated in (P), and indicate the year:

(A)	(P)	Year	(A)	(P)	Year
<input type="checkbox"/>	<input type="checkbox"/>	GRC Engineering Technology	<input type="checkbox"/>	<input type="checkbox"/>	GRC Shadowing
<input type="checkbox"/>	<input type="checkbox"/>	GRC Exploring	<input type="checkbox"/>	<input type="checkbox"/>	GRC TSU College Bound
<input type="checkbox"/>	<input type="checkbox"/>	GRC LCCC/NASA Technology Outreach Program (TOP)	<input type="checkbox"/>	<input type="checkbox"/>	FIRST
<input type="checkbox"/>	<input type="checkbox"/>	GRC LCCC/NASA Young Women Exploring STEM	<input type="checkbox"/>	<input type="checkbox"/>	NASA Explorers School School name _____
<input type="checkbox"/>	<input type="checkbox"/>	GRC NASA Camp for Aerospace Education at Oberlin College	<input type="checkbox"/>	<input type="checkbox"/>	SEMAA Site name _____
<input type="checkbox"/>	<input type="checkbox"/>	GRC N.A.S.A. Project	<input type="checkbox"/>	<input type="checkbox"/>	Other _____

How did you learn about the program?

- Faculty member or school official
- Group visit to GRC
- Inquiry to NASA about summer opportunities
- NASA Web site
- GRC Educational Programs staff
- GRC Educational Programs Web site
- Friend who participated in LERCIP
- Previously an LERCIP participant
- Other (please specify) _____

Relative who works for NASA/NASA contractor:

Name/relationship

Company name/area/organization

Print last name, first name, middle initial _____

MATH TEACHER RECOMMENDATION FORM
THIS FORM SHOULD BE RETURNED AS A PART OF THE APPLICATION PACKAGE.

When returning this form, please give the applicant ample time to meet the deadline. NASA must receive applications no later than September 21, 2010. Please make two copies of the completed teacher recommendation form, insert the original and two copies in an envelope, sign your name across the seal, and return the envelope to the applicant for package inclusion.

Teacher's Name and School
Provide summer address for invitation to students' presentation.
How long have you known the student and in what capacity?

How would you rate the student in the following areas? (Check *one per category*)

	Excellent	Very Good	Average	Poor
Accepts Responsibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conduct	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exhibits Leadership	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Follows Rules and Directions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Independence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Initiative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Level of Math Interest	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Team Player	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writing Skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<u>Overall Program Recommendation</u> <input type="checkbox"/> Highly Recommend <input type="checkbox"/> Recommend <input type="checkbox"/> Recommend With Reservation <input type="checkbox"/> Do Not Recommend	<u>Additional Comments:</u>
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Signature: _____ Date: _____

You may be contacted for additional information. Please provide the following:

Telephone no. (____) _____

E-mail address _____

Print last name, first name, middle initial _____

SCIENCE OR TECHNOLOGY TEACHER RECOMMENDATION FORM
THIS FORM SHOULD BE RETURNED AS A PART OF THE APPLICATION PACKAGE.

When returning this form, please give the applicant ample time to meet the deadline. NASA must receive applications no later than September 21, 2010. Please make two copies of the completed teacher recommendation form, insert original and two copies in an envelope, sign your name across the seal, and return the envelope to the applicant for package inclusion.

Teacher's Name and School _____
Provide summer address for invitation to students' presentation. _____
How long have you known the student and in what capacity? _____

How would you rate the student in the following areas? (Check *one per category*)

	Excellent	Very Good	Average	Poor
Accepts Responsibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conduct	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exhibits Leadership	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Follows Rules and Directions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Independence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Initiative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Level of Science or Technology Interest	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Team Player	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writing Skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<u>Overall Program Recommendation</u> <input type="checkbox"/> Highly Recommend <input type="checkbox"/> Recommend <input type="checkbox"/> Recommend With Reservation <input type="checkbox"/> Do Not Recommend	<u>Additional Comments:</u>
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Signature: _____ Date: _____

You may be contacted for additional information. Please provide the following:

Telephone no. (____) _____

E-mail address _____

Print last name, first name, middle initial _____

PARENT/GUARDIAN DATA

TO STUDENT:

Please ask your parent(s)/guardian(s) to carefully read and complete both sides of this form. You must include it in your application package. Your application is incomplete without the signature of a parent or guardian.

TO PARENT/GUARDIAN:

Please read the following information in its entirety, fill in the appropriate data, and indicate your approval on the signature line on the reverse side of the form. **Note: This information will remain strictly confidential (please print).**

Last name of father or male guardian	First	Middle initial
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Home address

City	State	Zip code	Telephone no. (Best time to call)
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Occupation	Employer	Work telephone no. or cell no. _____
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Last name of mother or female guardian	First	Middle initial
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Home address

City	State	Zip code	Telephone no. (Best time to call)
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Occupation	Employer	Work telephone no. or cell no. _____
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Complete reverse side of form.

Print last name, first name, middle initial _____

PARENT/GUARDIAN PERMISSION FORM

I understand that my child, _____, is applying to
Student's name (please print)

participate in the Glenn Exploring Program from October 2010 through April 2011.

This program entity, also referred to as the NASA Glenn Exploring Program, is conducted 1 day a week from 5 to 7 p.m. A NASA sponsor or NASA contractor will provide the student's direct supervision. However, the NASA Glenn Educational Programs Office (EPO) manages the overall program.

If selected for the above-mentioned program, I certify by my signature below that

- ❖ I grant permission for my son/daughter to participate in the NASA Exploring Program and all program-related activities.
- ❖ I ensure that my child will have transportation to and from the NASA Glenn Research Center.
- ❖ I grant permission for two teachers (math and science) selected by my son/daughter to complete the Teacher Recommendation forms.
- ❖ I am aware that the Teacher Recommendation forms will be used as a selection factor for the Exploring Program at the NASA Glenn Research Center.
- ❖ I understand that my child MUST adhere by all the program rules and guidelines established both by NASA and the EPO in order to participate in this program. If my child does not adhere to the rules and regulations, I understand that they could be terminated.
- ❖ I understand the failure to abide by program/safety/security policies by my child, could result in termination from the program.
- ❖ I understand that my child MUST be courteous and respectful to ALL of the program staff and students. If he/she is not, this is grounds for dismissal from the program.
- ❖ I understand that if my child is dismissed from the program for any of the above reasons, he/she will NOT be eligible for participation in NASA Glenn Education Programs in the future.
- ❖ I understand that my child is responsible for completing the required NEEIS forms.
- ❖ I guarantee my child's participation for the **entire duration of the program**. *(In the event he/she cannot fulfill this commitment, I understand that his/her position as an Exploring Program student will terminate and dues are nonrefundable.)*
- ❖ I authorize EPO to use any photographs of my son/daughter taken during their Exploring Program participation for promotion activities (i.e., Web site, newsletter, and promotion materials).
- ❖ I authorize the staff to release my child's name and address to educational organizations so he/she can be provided with current information on scholarships, other educational programs, and college financial aid information to enable NASA and its contractors to track and monitor the progress of the Exploring Program participants.

Emergency contact: _____
(Please print)

Relationship	Telephone no.	Cell/pager no.
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Parent's/guardian's signature of consent	Date
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Print last name, first name, middle initial _____

APPLICATION PACKAGE CHECKLIST

Before submitting this application, you should read it thoroughly. Special attention should be given to eligibility requirements, dates, and deadlines. Be sure that you have supplied all information and materials requested. You are encouraged to keep a copy of your completed application package, as we are unable to return any application materials submitted for the program. The application should be typed, if possible, or printed using black ink.

REQUIRED INFORMATION FOR COMPLETED APPLICATION PACKAGE *(check when completed):*

1. ____ ORIGINAL, SIGNED 2010–2011 EXPLORING PROGRAM APPLICATION FORM
(Pages 1–12)
2. ____ MATH TEACHER RECOMMENDATION FORM
3. ____ SCIENCE TEACHER RECOMMENDATION FORM
4. ____ PARENT/GUARDIAN PERMISSION FORM
5. ____ ESSAY
6. ____ TWO COPIES OF COMPLETE APPLICATION
(DO NOT MAKE COPIES OF TEACHER RECOMMENDATION LETTERS)

(Note: Application package will not be considered eligible unless the required copies are enclosed.)

All application materials are due by September 21, 2010, at the Open House event.

**NASA Glenn Research Center
21000 Brookpark Road, Building 3 Auditorium
Cleveland, OH 44135–3191**

**Should you have any questions, please contact
Stephanie Brown-Houston
Telephone no.: 216–433–8006
E-mail: Stephanie.D.Brown-Houston@nasa.gov**

No personal checks will be accepted for program dues.

www.nasa.gov