

2009 National Youth Science Camp®

The National Youth Science Camp® (NYSC) is an innovative and highly successful summer science honors program for two high-achieving high school science students from each state in the nation and several others from around the world. This residential experience is held in a rustic setting in West Virginia's eastern mountains and has honored and challenged more than 4,500 participants since it started in 1963. The National Youth Science Foundation® (NYSF), a nonprofit 501(c)(3) corporation, operates the National Youth Science Camp.

Goals

- **Honor** high-achieving science oriented students
- **Introduce** new scientific topics, especially those not typically covered in traditional secondary curriculum
- **Encourage** lifelong learning in science, engineering, and technology
- **Demonstrate** relationships among the sciences and between science and other disciplines
- **Prepare** students to face challenges of college and career
- **Encourage creativity**, build self-confidence, and develop camaraderie among future leaders



Program Components

Lectures and Interactive Seminars: Prominent scientists and researchers discuss cutting-edge topics in science and other disciplines, and have ample opportunity for informal interaction with students attending the NYSC.

Directed Studies: Visiting and resident professionals from diverse fields of study conduct three-day, in-depth research investigations in lab and field studies.

Program Areas: Visiting and resident experts lead hands-on experiences in the natural science, physical science, and computer science laboratories along with co-curricular activities in arts, music, wellness and sports. The surrounding million-acre Monongahela National Forest serves as a learning resource for field studies in wildlife ecology, botany, water chemistry, scientific illustration, and other areas. Delegates may also use the educational facilities at the nearby National Radio Astronomy Observatory (www.gb.nrao.edu).

Delegate Lectures and Seminars: NYSC delegates are encouraged to share their own research work with their peers and with visiting and resident experts who may be specialists in that field. Past delegate research topics have ranged from airplane wings based on dragonfly anatomy to DNA sequencing to antilock brakes for mountain bikes.

Backcountry Adventure Program: Resident specialists and practicing scientists lead small-group day trips and overnight excursions into the Monongahela National Forest. Adventures including backpacking, rock-climbing, caving, mountain biking and white water kayaking, foster an appreciation of nature and help develop leadership and teamwork skills.

Informal Activities: Opportunities abound for participants to pursue personal interests on an informal basis. The Program Areas (labs, studios, athletic fields, and natural areas) are available most afternoons for individualized instruction or group projects involving fellow delegates, staff members, and visiting specialists.

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Additional Program Features

National Representation

Graduating high school seniors representing each state are selected through competitive processes to attend the NYSC. Many equally accomplished students from other countries have also attended past NYSC sessions, including delegates from Argentina, Barbados, Brazil, Canada, Chile, Colombia, Mexico, and Trinidad and Tobago. Selection is based on science achievement and participation in school and community, and participation in the program is completely free of charge. The Foundation practices nondiscrimination.

Physical Environment

NYSC facilities include science laboratories, a computer center, and arts and music studios located in West Virginia's ecologically diverse, geologically complex eastern mountains. The area provides an outstanding natural laboratory for teaching and experimentation. Isolation from the usual distractions of cities or college campuses provides a nurturing atmosphere.

Intensive and Non-Competitive Learning

The schedule offers several weeks of near "around-the-clock" learning opportunities in a challenging yet friendly setting. Noncompetitive learning encourages teamwork and cooperative skills, utilizing science as a common language to allow delegates to learn from peers, staff, and visiting experts.

Broad Exposure to New Fields of Science

The NYSC program provides a broad spectrum of natural, physical, and applied sciences including biology, physics, chemistry, geology, astronomy, environmental science, engineering, medicine, space science and technology, with additional emphases on ethics, humanities, and the arts.

Washington Visit and Senate Luncheon

Delegates travel to Washington for three days to study national science concerns in meetings with scientists and with behind-the-scenes visits to research sites such as Goddard Space Flight Center, National Academy of Sciences, National Institutes of Health and national museums. One highlight of the Washington visit is the U.S. Senate Luncheon hosted by Senator Robert C. Byrd (D-WV) and attended by the delegates' respective senators with a talk by a prominent policy-making national speaker.

Cost

The NYSC program is offered *free of charge* to all delegates. Delegates may want to bring spending money for souvenirs, snacks, incidentals and the trip to Washington, DC.

Staff

- Resident staff include **experienced scientists and science educators** chosen for proven success with cross-disciplinary instruction
- All staff members will be skilled in **building self-esteem, developing leadership skills, and promoting respect** for others

Alumni

Many top science teachers and science and technical professionals count their experience at the National Youth Science Camp as being the strongest educational experience for providing reinforcement to pursue technical and scientific careers. Some former participants, like **David Thompson** who chairs **Orbital Science Corporation**, the first publicly owned firm to launch satellites as a business, met the father of the space program at the NYSC. **Dr. Deda Gillespie**, who went on from the NYSC to earn a doctoral degree in neuroscience from the University of California at San Francisco and credits her NYSC experience with providing the direction and encouragement that she needed to excel in her field. **Dr. David Hackleman, NYSC Alumnus and NYSF Trustee**, is a former **Hewlett-Packard** inventor on the team that developed Ink Jet technology, which now totals \$10 billion in sales annually. Alumni of the National Youth Science Camp program frequently return to West Virginia to teach and inspire at the NYSC.

2009 NYSC

Application: www.nysc.org/2009
Arrival: Wednesday, July 1 2009
Departure: Saturday, July 25, 2009
Cost: Free to participants

For more information about the NYSC or the NYSF, please visit our websites at www.nysc.org and www.nysf.com, call us at (304) 342-3326, send an E-mail message to nysf@nysf.com, or write us at the **National Youth Science Foundation, Post Office Box 3387, Charleston, WV 25333-3387.**