Thomas Jefferson High School for Science and Technology
PTSA Diversity Committee

Resources for Middle School Students

There are several resources and activities your student can use to prepare for admission to Thomas Jefferson High School for Science and Technology (TJHSST), as well as for other challenging academic high school programs (such as the Advanced Placement Diploma, the International Baccalaureate Program, private schools, and high school academies). These resources will also assist them in their preparation for the college admissions process.

• Preparation Courses for the TJHSST Admissions Examination

  ➢ The Office of Adult and Community Education of Fairfax County Public Schools (FCPS) is offering a test preparation course at Fairfax County Middle Schools, for County residents. Information is available at the following web site, or in the brochure “Encore”:
    http://www.fcps.edu/DIS/OACE/classesetc.html

  ➢ Quest Program: The Quest Program is a science, mathematics, language arts and technology enrichment program for students in grades six through eight in FCPS. It includes a module for test preparation. More information is available at:
    http://www.fcps.edu/DEA/msa/quest.htm

  ➢ Private and Community Courses: There are private courses available for TJ test preparation. These include for-profit institutions, as well as community groups (including Arlington County) and private tutors.

• Preparation Materials for the TJHSST Admissions Examination

  ➢ TJ admissions test handbook: The Admissions Office will provide the application package, which outlines the content of the test. The application package is usually available on October 1st from the Middle Schools Guidance Offices, or from the TJ Admissions Office. The Admissions Office will also offer a test preparation handbook, with a sample test, which will be available on October 1st. The current version is available at:
    http://www.tjhsst.edu/~cpayne/fcpshandbk04.pdf More information available at:
    http://information.tjhsst.edu/admissions/

  ➢ Books for the New York Science High Schools: The admissions exam for the science and technology high schools in New York City has a similar format to the TJ admissions test (and is prepared by the same testing company). The New York test includes a section on scrambled paragraphs, which is not on the TJ test, while the TJ test has a more extensive section on word analogies. Given the large number of students who take the New York Specialized Science High Schools Admission Test (SSHSAT), there are several books and materials that have been developed for these test. As in all other resources listed on this handout, their listing here does not constitute an endorsement:
a) Barron’s *How to Prepare for the New York City SHSAT Specialized Science High Schools Admissions Test*

b) *Kaplan SHSAT Advanced Prep 2005*

c) The Princeton Review’s *Cracking the New York City Specialized Sciences High School Admission Test*

d) Arco’s *New York City Specialized Science High Schools Admissions Test*

e) Learnatest: http://www.learnatest.com/academic/NYSPEC/home.cfm

The books are available from Internet booksellers (http://www.amazon.com, http://www.bn.com, etc.); or you can order them from area bookstores.

**Books for general High School Entrance Examinations**

There are also other books for general high school entrance examinations (including tests for private and religious schools). Compared to the TJ admissions test, these place less emphasis on mathematics and science. Some examples are:

a) Barron’s *How to Prepare for the SSAT/ISEE*

b) *Kaplan SSAT & ISEE 2005*

c) The Princeton Review’s *Cracking the SSAT/ISEE*

d) ARCO, *Master the Catholic High School Entrance Exams*

**Books and Materials to Prepare for the PSAT and SAT**

The Preliminary SAT (PSAT/NMSQT) is usually taken by High School students in their Sophomore and Junior years, to prepare for the SAT college entrance examination, and to qualify for the National Merit Scholarship.

The PSAT is at a higher level than the TJ admissions test, as it is geared towards students who have already had one or two years of high school, and have already studied Algebra and Geometry. However, you may find useful the sections on word analogies (discontinued in the PSAT in 2004), as well as the vocabulary review.

Students must take the PSAT or SAT if they apply for the sophomore and junior replacement admission process (for students in 9th and 10th grades). More information on this process is available at: http://information.tjhsst.edu/admissions/sophomoresandjuniors.shtml

There are numerous books, CD-ROMs and web sites that offer test preparation for the PSAT and SAT. A few examples are the following:

a) ARCO, *Master the SAT*

b) Barron’s, *How to Prepare for the PSAT-NMSQT*

c) *Kaplan New PSAT 2005*


**PSAT or SAT preparation courses organized by FCPS or other institutions**

There are organized courses to prepare for the PSAT or SAT, offered both by FCPS, as well as for-profit and other institutions (Kaplan, Princeton Review, etc.). A listing of courses, costs, and other information, is available at: http://www.fcps.k12.va.us/DSSSE/Target2/testprep.htm
However, these courses are mainly geared towards high school students, and in some cases may restrict the participation of Middle School students. If available, it would be advisable to take a test prep course designed for the TJ admissions test.

- Other web sites that have information about the PSAT, SAT and other test preparation resources:
  
  - [http://www.collegeboard.com/student/testing/sat/prep_one/prep_one.html](http://www.collegeboard.com/student/testing/sat/prep_one/prep_one.html)
  - [http://collegeapps.about.com/od/sat/](http://collegeapps.about.com/od/sat/)
  - [http://www.math.com/students/testprep.html](http://www.math.com/students/testprep.html)

- Gifted and Talented Programs

  - FCPS and other school districts offer Gifted and Talented Programs. In Fairfax, there are school-based and center-based GT programs. You can apply beginning in 2nd Grade, and throughout elementary and middle school. Currently, about two thirds of the FCPS students admitted to TJ come from Center-Based GT Programs. More information on the GT Programs is available from: [http://www.fcps.edu/DIS/gt/](http://www.fcps.edu/DIS/gt/)

  - The Fairfax County Association for the Gifted has a web site, which provides information on GT programs, and includes a detailed *Summer Enrichment Guide*:

- Summer Enrichment Programs

  - Many universities and institutions have organized summer enrichment programs. Participating in these programs will enable your child to enrich his or her exposure to math and science, as well as enhance their résumés for the TJ and college applications. A detailed list of summer programs appears in the FCAG site listed above. Some active programs in the Washington area are:
    
    o **FCPS Summer Programs**: These include “Tech-Adventure Camps”, “Summer Technology Institute” and “Institute for the Arts”. [http://www.fcps.edu/DIS/OACE/prek12.html](http://www.fcps.edu/DIS/OACE/prek12.html)
      This site provides a more comprehensive listing of summer opportunities: [http://www.fcps.k12.va.us/DSSSE/SummerOps4Students/index.htm](http://www.fcps.k12.va.us/DSSSE/SummerOps4Students/index.htm)

    o **TJ Summer Technology Institute**: TJ offers the Summer Technology Institute for rising 8th and/or 9th graders (current 7th or 8th graders) regardless of high school enrollment. These enrichment courses provide hands-on experiences with a focus on the uses of technology: [http://information.tjhsst.edu/summertech/](http://information.tjhsst.edu/summertech/)

    o **George Mason University**: Horizons Camp for Gifted/Talented Students, a day camp located on the GMU campus ([http://www.gmu.edu/horizons/](http://www.gmu.edu/horizons/)). A Mathematics Enrichment Program is also offered in the Summer and during the academic year ([http://mason.gmu.edu/~jelin/mty.html](http://mason.gmu.edu/~jelin/mty.html))

    o **University of Virginia**: A program for gifted/highly capable students interested in the particular fields of Mathematics, Social Science, Science and technology and Arts and Humanities. [http://curry.edschool.virginia.edu/go/enrich/](http://curry.edschool.virginia.edu/go/enrich/)
- **Johns Hopkins University**: Center for Talented Youth offers Summer Programs, on-line tutorials, and other resources: [http://www.jhu.edu/gifted/](http://www.jhu.edu/gifted/). JHU also offers this page with links to other summer programs in Math and Science: [http://www.jhu.edu/gifted/imagine/linkA4.htm](http://www.jhu.edu/gifted/imagine/linkA4.htm)

- **Duke University**: Talent Identification Program: [http://www.tip.duke.edu/](http://www.tip.duke.edu/)

- **Index of Pre-College Science Training Programs**: (you can search this site specifically for minority student programs): [http://www.sciserv.org/stp/](http://www.sciserv.org/stp/)

- **Programs mainly geared towards Minority Students**
  - Some programs have offerings designed mainly for African-American, Latino and Native American Students. Some of these programs are:

  - **CAHSEE Program**: The Center for the Advancement of Hispanics in Science and Engineering Education provides a summer program, which provides exposure to different aspects of mathematics, engineering, computer science and engineering [http://www.cahsee.org/programs/index.htm](http://www.cahsee.org/programs/index.htm)

  - **Howard University Summer Enrichment Program**: To stimulate interest in science, this academic science enrichment program is designed to build bridges and vital anchors for science education in college. [http://www.founders.howard.edu/preprof/enrichmentprog.htm](http://www.founders.howard.edu/preprof/enrichmentprog.htm)

  - **Black Excel list of programs**: This is a compilation of enrichment programs geared towards minority students. Although most are oriented towards high school students, a few do include Middle School students. [http://www.blackexcel.org/summer-progs.htm](http://www.blackexcel.org/summer-progs.htm)

  - **NASA Summer High School Apprenticeship Research Program**: [http://www.nasasharp.com](http://www.nasasharp.com)

  - **MIT Minority Introduction to Engineering, Entrepreneurship, and Science (MITES)**: is a rigorous six-week residential, academic enrichment summer program for promising high school juniors who are interested in studying and exploring careers in science, engineering, and entrepreneurship [http://web.mit.edu/mites/www/](http://web.mit.edu/mites/www/)

  - **CMU Summer Academy for Mathematics and Sciences**: rigorous six-week residential summer experience designed to attract students who are considering careers in engineering, science and other math-based disciplines. [https://www.cmu.edu/enrollment/summerprogramsfordiversity/](https://www.cmu.edu/enrollment/summerprogramsfordiversity/)

  - **Ventures Scholars Program**: This site offers information to prepare students for college admissions, as well as links to other programs and opportunities: [http://www.venturescholar.org/](http://www.venturescholar.org/)

The PTSA Diversity Committee will update this information on our web site: [http://www.tjhsst.edu/ptsa/diversity.htm](http://www.tjhsst.edu/ptsa/diversity.htm)

(prepared April 23, 2005)