



The St. Albert the Great Science, Technology, Engineering and Math Program at St. Thomas Aquinas Regional School

The purpose of the St. Albert the Great Science, Technology, Engineering and Math (STEM) program is to provide the opportunity for academically able students in grades fifth through eighth to participate in advanced courses in the areas of science, technology, engineering and math.

Key elements of the STEM Program include:

- Online learning in conjunction with Johns Hopkins University Center for Talented Youth (CTY) for fifth grade math, and Middle School Earth, Life, Physical Science, and Forensics.
- An advanced math track enabling students to enroll in geometry in eighth grade
- A bi-weekly lab with a Johns Hopkins instructor at Aquinas in sixth and seventh grade
- A robotics course using the Lego and EV-3 platform.



Co-Curricular Activities:

- A special STEM field trip will be planned during the year for 7th and 8th grade students
- Two times per quarter, STEM students will be required meet with their mentor to review progress in courses.

Admission Qualifications

Rising 5th grade students:

- must maintain an 93% or above in Aquinas math courses
- must score at or above the 90th percentile on the math section of the Scantron Standardized Testing
- must qualify for “summer programs” on the quantitative section of the SCAT administered by CTY
- must achieve a 80% or above on the 5th grade math placement exam
- must have a **positive teacher recommendation**

Rising 6th grade students in the STEM program in 5th grade:

- must maintain a 80% or above in STEM math course and successfully complete the courses

- must score at or above the 90th percentile on the math section of the Scantron Standardized testing
- must achieve a 80% or above on the diocesan Pre-Algebra placement exam
- must have a **positive teacher recommendation**

Rising 6th grade students *not* in the STEM program in 5th grade:

- must maintain an 93% average in Aquinas math courses
- must score at or above the 90th percentile on the math composite section of the Terra Nova
- must qualify for “summer programs” on the quantitative section of the SCAT administered by CTY
- must achieve a 80% or above on the diocesan Pre-Algebra math placement exam
- must have a **positive teacher recommendation**

Rising 7th grade students:

The STEM program is designed as a progressive curriculum with a substantial portion of the diocesan curriculum requirements being covered in sixth grade. Students who have successfully completed (90 or better) Pre-Algebra in 6th grade and who have received a qualifying score on the SCAT test may be considered for special enrollment. Since each student’s situation is unique it is best to email the STEM Teacher, Mrs. Mendell at jmendell@aquinastars.org for a determination.

Rising 8th grade students:

The STEM program is designed as a progressive curriculum with a substantial portion of the diocesan curriculum requirements being covered in sixth grade. Students who have successfully completed (90 or better) Pre-Algebra in 6th grade and Algebra in 7th and who receive a 90 or better on the Diocesan Algebra Exemption Exam given in June 2019 may be considered for special enrollment. Since each student’s situation is unique it is best to email the STEM Teacher, Mrs. Mendell at jmendell@aquinastars.org for a determination.

Course Offerings

5th Grade:

- CTY Math online. Should complete Honors grade 5 math and half of Honors Pre-Algebra. Student should test into Pre-Algebra at the end of fifth grade.

6th Grade:

- Pre-Algebra. (taught at Aquinas)
- CTY Earth Science online with bi-weekly lab
- CTY Life Science with bi-weekly lab

7th Grade:

- Algebra (taught at Aquinas)

- CTY Physical Science with bi-weekly lab (second semester)
- Robotics

8th Grade:

- Geometry (taught at Aquinas)
- Robotics (taught at Aquinas)

The STEM program is an academically rigorous program which requires *both parent involvement and student* effort. Students should be productive during class time and should also complete at least 30 minutes of work each night for each class. Parents should *actively* monitor student progress and help the students to maintain an acceptable pace in their work.

Our STEM students are assigned a mentor. The students meet with their respective advisor twice a quarter to monitor course progress. Parents are asked to review the monitoring sheet with their child, sign, and return the form in acknowledgement of the progress made. Please be mindful that Aquinas deadlines *supersede* CTY course end dates which are at the end of the semester.

The Application and Admission Process

Application for Current Fifth Grade STEM students and Rising Fifth and Sixth Grade Students New to the Program

Fifth Grade is an introductory year providing the foundation for the accelerated math curriculum in the years to come. Participation in the STEM program is highly recommended by the school. The fifth grade year provides the school, student, and parent the ability to assess a given student's aptitude for the STEM program before engaging in the rigor of the middle school program. Students currently enrolled in the STEM program in fifth grade must **re-apply** for admissions to continue with the middle school STEM program. Determination for continued admittance will be based on the criteria given below.

Rising 6th grade students currently in the STEM program:

- Complete and submit the STEM application to the school office
- Maintain a B in the online Math class
- Successfully complete Honors 5th grade Math and half of Honors Pre-Algebra
- Admissions is determined according to the qualifications listed above
- Positive teacher recommendation
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Admittance for: Rising 5th or 6th grade students new to the program:

- Attend the information night
- Register to take the SCAT test through CTY (see deadlines listed on the program calendar)

- Fill out the St. Albert the Great STEM program application and submit it to the school office
- Submit a teacher recommendation form to the students current math teacher
- Admissions is determined according to the qualifications listed above
- Submit Standardized Math Test Scores; VA public school test, if not an Aquinas student.

Acceptance and Admission

Admission decisions will made by mid-June. Parents will receive notification by mail. Additional information regarding enrollment fees will also be included.

Enrollment and Re-Enrollment

Rising 5th/6th grade students:

- After the admissions process is completed, parents will receive notification of admissions decisions regarding the STEM program along with an enrollment form and fee.
- Parents should complete and return the enrollment form by June 28, 2019.

Rising 7th/8th Grade Students already in the STEM program:

- After receiving the enrollment packet, parents should complete and return the enrollment form and fee by June 28, 2019.

About Testing

- **SCAT (and Advanced SCAT)** - The School and College Ability Test (SCAT) is a CTY assessment used for admissions to their online and summer programs. Since students in the STEM program also participate in CTY online courses, they are required to take the SCAT through CTY. For enrollment in the STEM program, students must have a score on the quantitative section that makes them eligible to participate in “summer programs”. Parents are responsible for registering for individual testing at a testing center and sending a copy of the score report to Aquinas by the date indicated on the calendar of dates below. Our registered school name with CTY is St. Thomas Aquinas Regional School. Our school code is: **2219160**. Please see their website for more information about the test, testing registration and locations, as well as practice tests. <http://cty.jhu.edu/talent/testing/>
- **Placement Exams/Study Guides** – the Diocese of Arlington has developed placement exams for students entering Pre-Algebra, and Aquinas has developed a placement exam for

fifth grade students entering the STEM program. A study guide is available on the schools website (aquinastars.org) under the Admissions tab >STEM. The exam will be administered in school on May 31, 2019. A student must make a qualifying score on the placement exam in order to be considered for the STEM program. New students wishing to test should notify the admissions office.

- **Scantron** – Students must score in the 90th percentile or above on the math section of the Scantron Standardized testing. If a student is new to Aquinas and another standardized test has been taken, an equivalent score determined by the school will be used to determine eligibility.
- **Algebra and Geometry Exemption Exams** – At the end of seventh grade, students will take the Algebra Exemption Exam at one of the diocesan high schools. The successful completion of the exemption exams is necessary in order for students to receive high school credit at the diocesan Catholic high schools. Students must achieve a qualifying score in order to receive high school credit. STEM students who do not pass the Algebra Exemption Exam in seventh grade must repeat Algebra the following year. At the end of eighth grade, students will take the Geometry Exemption Exam at one of the diocesan high schools. The successful completion of the exemption exams is necessary in order for students to receive high school credit at the diocesan Catholic high schools.

Program Calendar

Date	What	Action required	Fee
Feb. 22, 2019 @7:00 p.m.	Information Night at Aquinas	Meeting in the Library	n/a
	Admission application sent home to parent	<p>Parents should review the packet. Qualifying students should: +submit the teacher recommendation to the teacher +complete the CTY on-line application first. You will need the 9 digit authorization number in order to schedule testing. The application link is – https://mycty.jhu.edu/applications/ctyonline/page1.cfm</p> <p>Parents must schedule testing through CTY. The link is http://cty.jhu.edu/talent/testing/ In order for Aquinas to receive the scores in time, testing must be scheduled three weeks before June 1, 2019. +complete and return the STEM application to Aquinas</p>	\$43.00 Talent Search Application Fee \$60.00 SCAT Testing Fee
May 1, 2019	Admissions applications for the STEM program due to Aquinas	Admissions applications should be sent to the office. Students who were required to take the SCAT should submit the application even if the SCAT scores have not been received.	n/a
May 31, 2019	Placement tests will be administered at Aquinas for 5 th /6 th Grade Math	Parents should look for the math study guide found in the STEM packet or on the website. New students should notify the admissions office if they are coming for testing. Testing takes about one hour.	n/a
June 1, 2019	SCAT scores due to Aquinas	Parents should submit SCAT scores to Aquinas office.	n/a
June 24, 2019	Final Report Cards due	Final report cards and any additional testing information due (for non-Aquinas Students)	n/a
Mid-June	Admissions decisions made	Parents will receive notification by mail along with enrollment form and fee information.	n/a
June 28, 2019	Enrollment forms and fee due	Enrollment fees due to the school	\$ 525 STEM enrollment fee