#### **GRADES 7 & 8 ACCELERATED STEM PROGRAMS**

Manasquan Elementary offers an Accelerated STEM Program in Grade 7 and Grade 8. The program extends the curriculum in all subject areas to include rigorous enrichment activities and experiences with an engineering and design approach that will be aligned with the goals of STEM Education and the Next Generation Science Standards (NGSS). This opportunity will be open to those students who meet the requirements to be selected for the accelerated program.

# <u>Criteria for the Grade 7 & Grade 8 Accelerated STEM programs:</u>

- 1. Initial Identification (Students must meet 3 out of the 4 criteria listed below):
  - 95 or higher FINAL average in subject areas: Mathematics, Science, Language Arts, Social Studies, and Technology Education
  - STEM Placement Test- minimum score of 85
  - Spring PARCC Score minimum score of 770 in <u>both Mathematics</u> and Language Arts (Grade 6)
  - MAP Score (Measurement of Academic Progress): Combined Language Arts, Reading, and Mathematics minimum RIT score of 678 (Grade 6) or RIT score of 705 (Grade 7)
  - Beginning with the 2017-18 school year, additional criteria will be added with the inclusion of a cognitive abilities test.
- 2. Students who are identified initially will have the opportunity to APPLY for the program, if they are interested, by completing the STEM Application which includes a required essay.
- 3. Final review of applicants:
  - The STEM Committee will review applications/essays grades, and Placement Test scores
  - Final recommendation from the STEM Committee will be approved by the building Administration for acceptance into the program.

# **STEM (STEAM) EDUCATION**

Manasquan Elementary School provides STEM education to ALL students in Grades K-8. In addition, there will be an Accelerated STEM Program for qualified students in Grade Seven and Grade Eight.

STEM education is the preparation of students in competencies and skills in the four major disciplines of science, technology, engineering, and mathematics. It is the re-visioning of science education to enable the next generation of innovators. STEM includes a range of instructional strategies to help students apply concepts and skills in the different disciplines while participating in a **design process** with opportunities to solve meaningful problems. STEM education encourages creativity, creates problem solvers, supports communication and collaboration, produces critical thinkers, offers students challenging and engaging content, and meets the criteria for the new Next Generation Science Standards (NGSS).

In addition, planning is also being currently conducted to infuse the arts into our STEM Program. The "A" stands for the broad spectrum of the liberal arts including Fine Arts and Music, Language Arts, and Social Studies that each shape developments in STEM fields. Ultimately, all subject areas relate to each other and to the real world. STEAM allows educators to better teach academic and life skills in a standards-backed, reality-based, personally relevant exploratory learning environment. As a result, STEAM Education is defined as "science and technology, interpreted through engineering and the arts, all based in mathematical elements".

# PROJECT AWAKENING

# MANASQUAN ELEMENTARY SCHOOL'S GIFTED & TALENTED/ENRICHMENT PROGRAM

GOAL:

Project Awakening provides a multi-faceted gifted and talented/enrichment program which is designed to discover, nurture and develop the academic skills, critical thinking skills, and creative abilities of as many of our students as possible. Students selected for these opportunities will be challenged to discover answers, create new solutions, and employ these understandings and experiences in their lives. Project Awakening provides educational experiences in a variety of domains by offering activities that will enable our students to expand their knowledge and challenge them to reach their highest potential.

## PROGRAM COMPONENTS:

In Grades K-3, individual classroom teachers will be responsible for identifying students within their classroom(s) in need of enrichment. Based on identified strengths in any areas provided within our curriculum, teachers will offer enrichment opportunities within their individual classrooms for the identified students. Based upon observation and classroom achievement, teachers will submit a list of identified students, the subject area(s) where enrichment would be beneficial, and classroom experiences that will be offered to them. This list will be submitted at the end of the first marking period after teachers have had the opportunity to observe their students' achievement for a sufficient period of time. Enrichment activities will then be available during the  $2^{\rm ND}$ ,  $3^{\rm RD}$ , and  $4^{\rm TH}$  marking periods.

<u>In Grades 4-6</u>, an accelerated class has been created in each of the respective grade levels. Using criteria established by the Gifted and Talented Committee, select students will be identified for the accelerated grade level classes. The classes are designed to further differentiate instruction in order to challenge the identified students in every subject on a daily basis. The criteria for selection is listed below:

Students must meet 2 out of the 3 criteria listed below:

- 93 or higher FINAL average in subject areas: Mathematics, Science, Language Arts, Social Studies, and Technology Education
- Spring PARCC score: minimum score of 770 in both Mathematics and Language Arts
- MAP Score (Measurement of Academic Progress) Combined Language Arts, Reading, and Mathematics RIT score:

Entering Grade 4 - minimum score of 608

Entering Grade 5 – minimum score of 648

Entering Grade 6 - minimum score of 654

(NOTE: Beginning with the 2017-18 school year, additional criteria will be added with the inclusion of a cognitive abilities test.)

## Final Review of Applicants:

- The Gifted and Talented Committee will review ALL student criteria.
- Final student recommendation list from the G&T Committee must be approved by the Building Administration for acceptance into the program.

STUDENTS MUST ACHIEVE A <u>FINAL AVERAGE OF 90</u> IN THEIR MAJOR SUBJECT AREAS AND TECHNOLOGY EDUCATION IN ORDER TO BE CONSIDERED FOR THE ACCELERATED CLASS IN THEIR NEXT SCHOOL YEAR.

In Grades 7&8, and Accelerated STEM Program has been created in the respective grade levels. Using criteria established by the Gifted and Talented Committee, select students will be identified for the accelerated classes. The program is designed to extend the curriculum in Science, Mathematics, and Technology Education to include rigorous enrichment activities and experiences with an engineering approach that aligns with the goals of STEM Education and the Next Generation Science Standards. The program also provides for more challenging instructional material in ALL major subject areas, including English Language Arts and Social Studies. Students will have the opportunity to participate in lessons that require increased critical thinking and problem-solving skills ~ and will be exposed to more advanced lessons that encourage students to investigate, model, and explain the natural and designed world through an integrated curriculum. Opportunities for innovative, project-based learning experiences will be incorporated in the instructional design.

# <u>Criteria for the Grade 7 & Grade 8 Accelerated STEM programs:</u>

Students must meet 3 out of the 4 criteria listed below:

- 95 or higher FINAL average in subject areas: Mathematics, Science, Language Arts, Social Studies, and Technology Education
- Spring PARCC score: minimum score of 770 in both Mathematics and Language Arts
- STEM Placement Test minimum score of 85
- MAP Score (Measurement of Academic Progress) Combined Language Arts, Reading, and Mathematics RIT score:

Entering Grade 7 – minimum score of 678 Entering Grade 8 – minimum score of 705

(NOTE: Beginning with the 2017-18 school year, additional criteria will be added with the inclusion of a cognitive abilities test.)

## Final Review of Applicants:

- The Gifted and Talented Committee will review ALL student criteria.
- Final student recommendation list from the G&T Committee must be approved by the Building Administration for acceptance into the program.

<u>CRADE 7</u>: STUDENTS MUST ACHIEVE A <u>FINAL AVERAGE OF 90</u> IN THEIR MAJOR SUBJECT AREAS AND TECHNOLOGY EDUCATION IN ORDER TO BE CONSIDERED FOR THE GRADE 8 ACCELERATED CLASS IN THEIR NEXT SCHOOL YEAR.

ADDITIONAL NOTE: Students in the Seventh and Eighth Grade Accelerated STEM Classes and the Sixth Grade Accelerated Class will also have the Major Subject Area classes (Mathematics, Language Arts, Social Studies and Science) weighted three (3) points for Honor Roll calculations only. (The additional points will not be added to the final marking period grades shown on report cards.)

#### GIFTED AND TALENTED CONSORTIUM OPPORTUNITIES

Project Awakening also offers additional enrichment programs for identified students to participate in <u>outside of the regular classroom</u> to expand their knowledge in specific subject areas. This component of Project Awakening will be offered to identified students in Grades 4-8 through the Shore Consortium for the Gifted and Talented and the South Shore Consortium for the Gifted and Talented.

# ADDITIONAL PROGRAM OFFERINGS (Grades 4-8):

The Gifted and Talented Committee may meet to consider possible after-school program opportunities to be implemented during the course of the school year. Staff members may submit a request to serve as advisor to an established program and/or may prepare a proposal for a new enrichment program. The Committee may also investigate new programs and open them to the staff for possible implementation. Programs will be scheduled on a staggered basis throughout the school year, whenever possible, to allow for maximum participation by students.

#### IMPLEMENTATION OF ENRICHMENT PROGRAMS:

Selected programs for students in grades 4-8 will involve a student application process including specific identification criteria (as needed) for each program offered during the course of the school year. The application will be developed according to the program's targeted subject area.

Selection for the enrichment programs will be made based upon teacher recommendation and student applications. Applications must be completed thoroughly and submitted by the required due date. All applications will be reviewed by the Committee and the Project Advisor. If certain programs allow for participation by only a <u>limited</u> number of students, specific criteria will be established. The Project Advisor and the Committee must then meet to review the criteria and identify the eligible students for the program.

# **EVALUATION**:

Evaluation forms for each program will be designed by the Committee for completion by the Advisor and the student participants at the conclusion of each planned activity. The results will be reviewed by the Committee annually and will be used to make recommendations for the next school year. All programs will be monitored by administration and the Gifted and Talented Committee throughout the course of their implementation.

#### MONMOUTH COUNTY ARTS MIDDLE SCHOOL

The Monmouth County Arts Middle School is an enrichment program for artistically gifted and talented students in Grades 6-8. The program offers accelerated Arts Education Classes for middle school students throughout Monmouth County. The Arts Middle School Program offers accelerated classes in creative writing, instrumental music, dance, visual arts, theater, film-making, and photography taught by a faculty of professional working artists. Identified students are accepted into the program through audition and are released from their regular classes one afternoon a week (for three hours) for a twelve-week term. Student transportation is provided. The classes will be held at the Henry Hudson Regional School. Students accepted into the program must maintain passing grades in all MES classes in order to remain eligible for the program. Students are also responsible for making up regular classwork that is missed.

# NATIONAL JUNIOR HONOR SOCIETY

The purpose of the National Junior Honor Society (NJHS) is to create enthusiasm for scholarship, stimulate interest in community service, promote leadership, develop character, and encourage good citizenship.

Eligible students in Grades 6-8 must meet the minimum grade of 95% in core (Math, Language Arts, Science, Social Studies) subjects. Students who qualify will receive an invitation to apply. Students who complete the required forms will be selected by our Faculty Council for meeting the high standards of scholarship, service, leadership, citizenship, and character as outlined by the organization.

Members are required to attend NJHS meetings, to participate in community service, and to model behaviors that exemplify the standards listed above.

# HIGH SCHOOL LEVEL COURSES (for identified Eighth Graders)

#### WORLD LANGUAGES PROGRAM

Students <u>entering the Eighth Grade</u> may be eligible to take a high school level World Languages course provided they meet the following criteria:

# Stipulations for World Languages:

- 1. Final grades will be averaged on <u>all</u> four marking periods plus an average of the mid-term and final exam.
- 2. Students may drop the course at any time up to the mid-term examination, which may be used in the final decision for remaining in or dropping the subject.
- Students taking Spanish I (French I or Italian I) in the eighth grade will receive credit for that course in Elementary School <u>only</u>. The course will not appear on their high school transcript.
- 4. Students who successfully complete Spanish I (French I or Italian I) in the eighth grade will have the opportunity to continue with that language in high school or begin instruction in a new world language. Specifically, students who receive a final grade of an "A" in Spanish I (Italian I or French I) will have the opportunity to take Spanish II Honors (Italian II Honors or French II Honors). Students who receive a "B" or "C" as the final grade will have the opportunity to take Spanish II (Italian II or French II). If a student receives a "C" or "D", consideration will be made to repeat Spanish I (Italian I or French I) during their Freshman year. Students who fail the course must take a first year world language course in high school.
- 5. Marking Period final grades will be weighted (7 points) for honor roll status only.

# Criteria for Eligibility

- 1. Final average of 93 or higher in Grade 7 World Language rotation class
- 2. Teacher recommendation by the 7th grade World Language teachers
- 3. Final average 93 or higher in Grade 7 Language Arts class

## ATTENDANCE REQUIREMENT FOR HIGH SCHOOL COURSES

With regards to the Algebra I, Spanish I, Italian I, and French I courses, our students will be held to the attendance regulations of Manasquan High School which stipulate that excessive absence is defined as fifteen (15) days in any full year class.

#### **GRADE 8 ALGEBRA I PROGRAM**

# Students <u>entering the Eighth Grade</u> may be eligible to take Algebra I with the following stipulations:

- 1. Final grades will be averaged on <u>all</u> four marking periods <u>plus</u> an average of the mid-term and final exam.
- 2. Students may drop the course and transfer to another eighth grade mathematics class at any time <u>up to the mid-term examination</u>, which may be used in the final decision for remaining in or dropping the subject.
- 3. Students who receive a <u>final grade</u> of an "A" will have the opportunity to take *Geometry Honors*. Students who receive a "B" or "C" as the final grade will have the opportunity to take *Geometry*. If a student receives a "C" or "D, consideration will be made to repeat **Algebra I** during their freshman year.
  - Students failing the course will be required to repeat Algebra I in high school.
- 4. Students taking Algebra I in the eighth grade will receive credit for that course in Elementary School only. The course will not appear on their high school transcript.
- 5. Marking Period final grades will be weighted (7 points) for honor roll status only.

# Criteria for Eligibility

## Students must meet two out of three:

- 1. Recommendation by the 7th grade Math Teacher
- 2. Final average of 93 or higher in Grade 7 Mathematics class
- 3. 80 or higher on the Seventh Grade Algebra I Placement Test
- 4. "5" (Exceeded Expectations) on the PARCC Mathematics Test

## **GRADE 7 ALGEBRA I PROGRAM – Bridge Class**

Selected Seventh Grades will have the opportunity to participate in an accelerated mathematics program. Identified students will bypass the Seventh Grade mathematics class and attend a high school level Algebra I class as a Seventh Grader. (With successful completion of Algebra I, those students will then have the opportunity to take a high school Geometry class as an Eighth Grader).

#### Criteria for Eligibility:

- 1. 85 or higher on the Sixth Grade Algebra I Placement Test
- 2. 93 or higher in Mathematics during all four marking periods of Sixth Grade
- 3. Recommendation by the 6th grade Math Teacher

Due to the advanced nature of the accelerated program, selectivity of participating students is extremely stringent.

In addition, students identified for the program (who have accepted participation) will be required to take a two-week "Algebra I Bridge Class" in July to prepare for the program beginning in September.