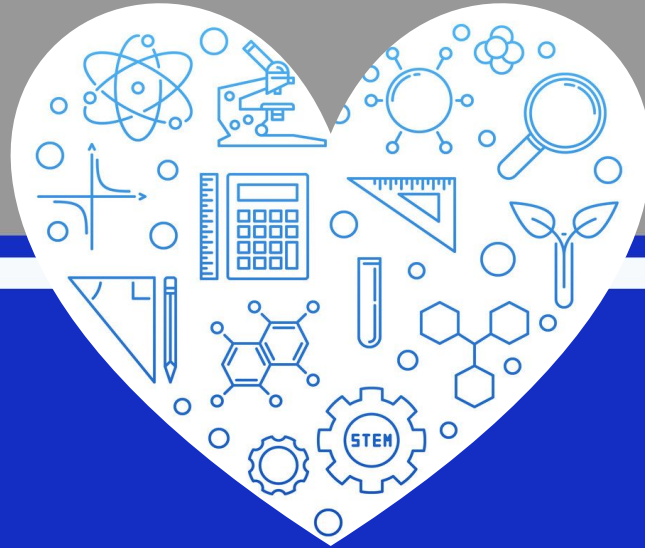


# 8th Grade Parents' Night



Math and Science Information Session  
January 10, 2023

# Guida Faria

Supervisor of Science, Engineering  
and Gifted & Talented

[gfarria@spfk12.org](mailto:gfarria@spfk12.org)

(908)889-8600 ext. 31405



# Sarah Kaeli

Supervisor of Math, Computer  
Science and Business

[skaeli@spfk12.org](mailto:skaeli@spfk12.org)

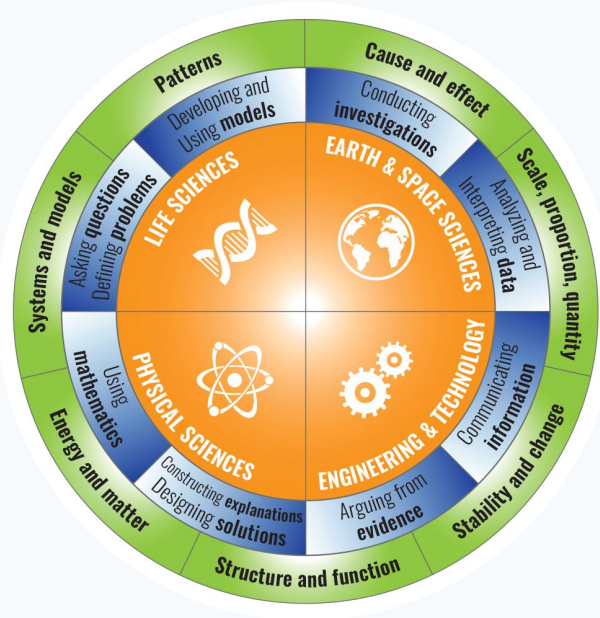
(908)889-8600 ext. 31410

# Science

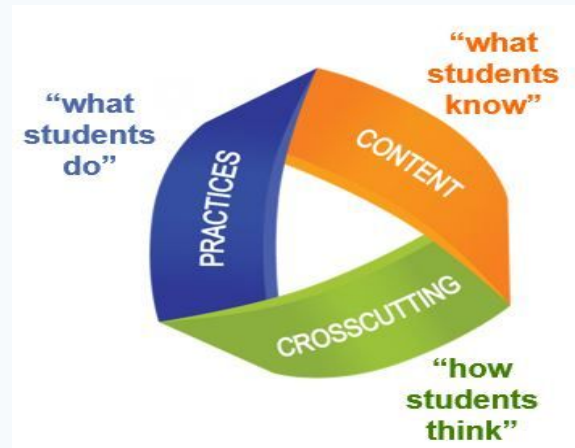


Aligned with the vision of NGSS, SPF science is focused on all standards for all students.

Instruction is focused on having students as the ‘doers’ of science to figure out a phenomena or designing a solution for an engineering problem.

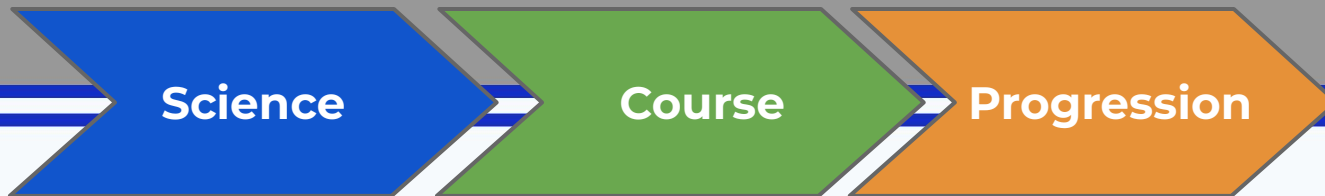


# New Jersey Student Learning Assessment - Science



- **Disciplinary Core Ideas**
  - **Life Sciences**
  - **Physical Sciences**
  - **Earth & Space Science**
  - **Engineering & Technology**
- **Crosscutting Concepts**
- **Science & Engineering Practices**

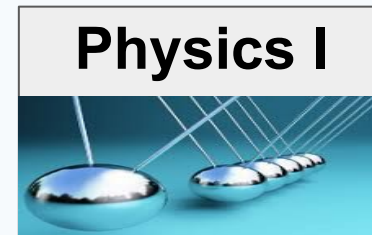
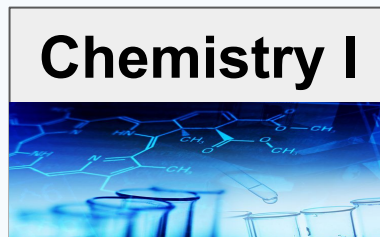
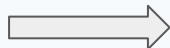
*Administered to ALL 11<sup>th</sup> grade students*



## 9th Grade

## 10th Grade

## 11th Grade



- or -



- ❖ Levels for core science classes are *Academic* or *Accelerated* with the exception of Environmental science which is Academic or AP.
- ❖ Special education support classes are available for all core science classes.

# Science Elective Opportunities



## 10th Grade

Astronomy

Biology II AP

Environmental Science AP

Nutrition Science

## 11th Grade

Chemistry II AP

Anatomy & Physiology

Forensic Science

Zoology

## 12th Grade

Physics II AP

# Placement & Transition



Departmental Recommendation

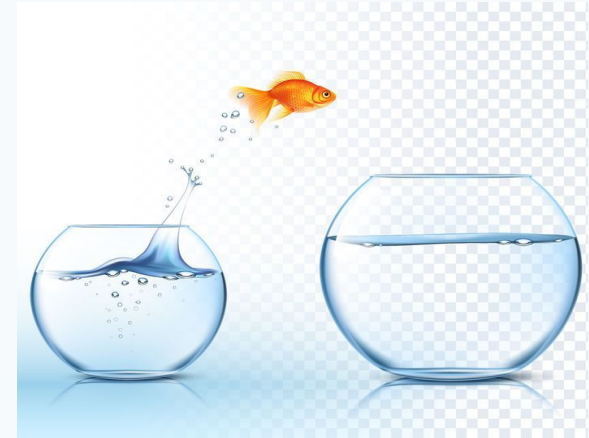
Multiple Measures

Student Self-Reflection

Skills Based Rubric on Performance Based

Assessments

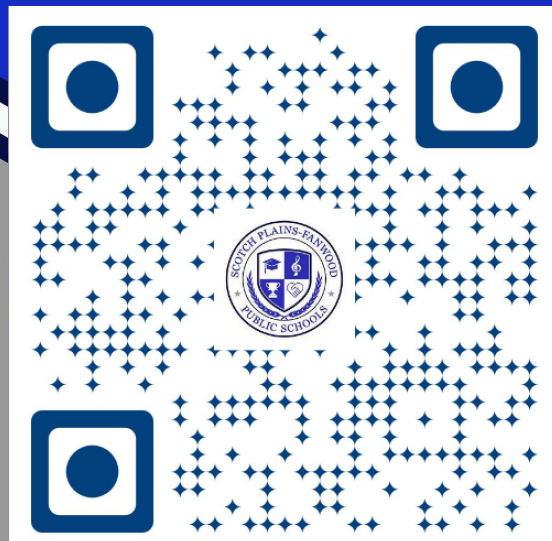
Grades



***Placement is flexible and reconsidered every year!***

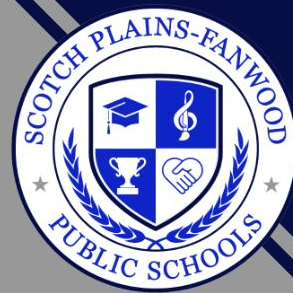
*If you have any questions or concerns about science, please feel free to contact me:*

*Guida Faria*  
*[gfarial@spfk12.org](mailto:gfarial@spfk12.org)*  
*(908)889-8600 ext. 31405*



*thank  
you*

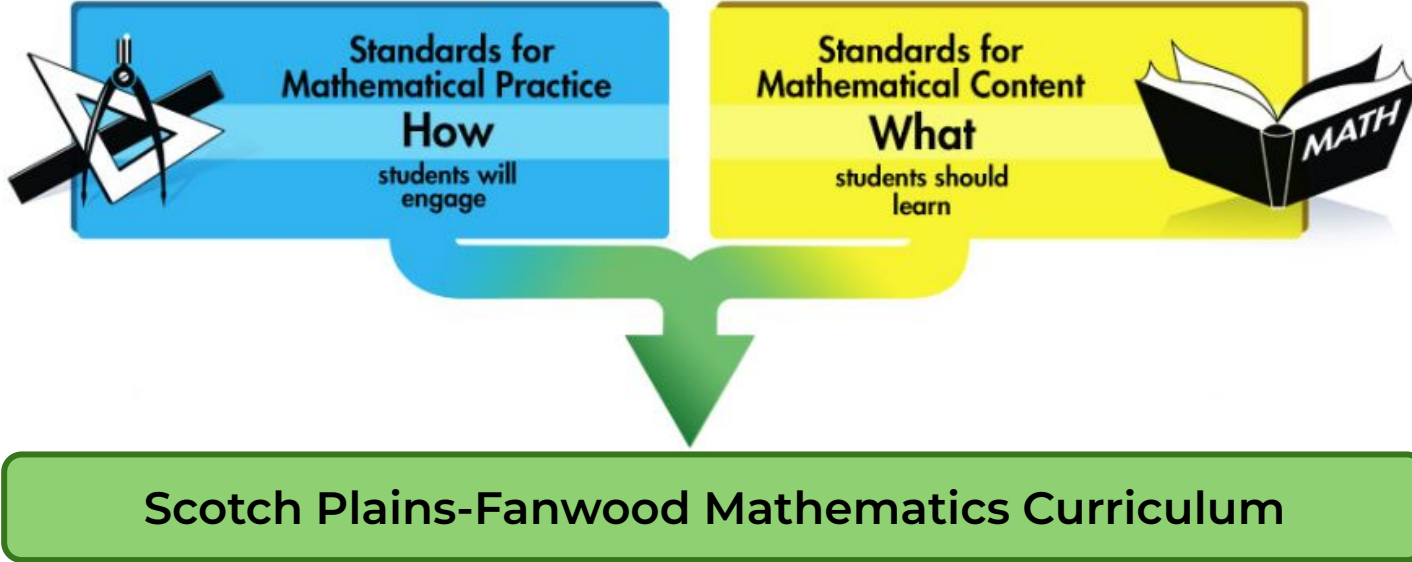




# Mathematics

The word "Mathematics" is written in a black, cursive font. It is surrounded by various light blue mathematical sketches, including a 3D cone, a circle with a radius line, a shaded area under a curve, a coordinate plane with a point labeled 'x', and a pair of compasses.

# Department Mission



The mathematics curriculum supports critical thinking at all levels. It is aligned to the NJSLs for Mathematical Content promotes the development of the skills outlined in the Standards of Mathematical Practice.

# 9th Grade Course Offerings



## Algebra 1 -or- Algebra & Analytic Geometry

- ❖ Placement is flexible and evaluated annually.
- ❖ All courses develop students' knowledge and skills within contexts of realistic and relevant problems.



# Placement & Course Progression



- ❖ Placement for 9th grade is a departmental recommendation based on multiple measures such as student self-reflection, skills-based rubric, grades, and assessment data.

Grade 9:	Algebra I		Algebra & Analytic Geometry	
<i>Prerequisite:</i>	<i>Math 8</i>		<i>Math 8/Alg. I &amp; meet expectations on NJSLA</i>	
Grade 10:	Algebra & Analytic Geometry		Algebra II	
<i>Prerequisite:</i>	<i>Algebra I</i>		<i>Algebra &amp; Analytic Geometry</i>	
Grade 11:	Algebra II		FST	Math Analysis
<i>Prerequisite:</i>	<i>Algebra &amp; Analytic Geometry</i>		<i>Algebra II</i>	<i>Algebra II</i>
Grade 12:	FST	Math Analysis	Pre-Calculus	Calculus
<i>Prerequisite:</i>	<i>Algebra II</i>	<i>Algebra II</i>	<i>FST</i>	<i>Math Analysis</i>

*FST = Functions, Statistics, & Trigonometry*

# NJ Graduation Requirements

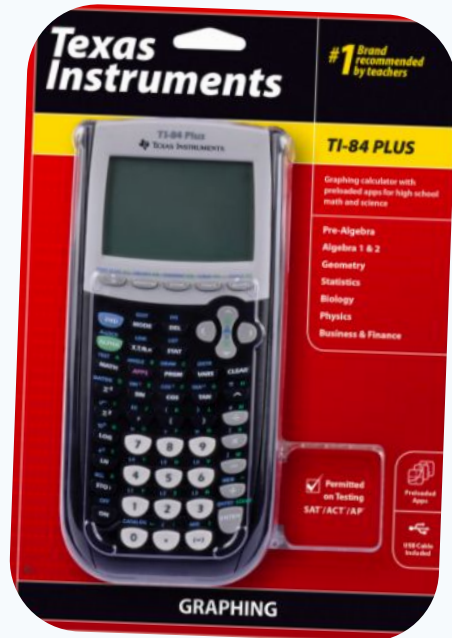


## Course Requirements

- Algebra 1
- Geometry
- Third year of math that builds on Algebra & Geometry & prepares students for college & 21st century careers

## Assessment Requirements

- Students must take and demonstrate proficiency in grade 11 on the New Jersey Graduation Proficiency Assessment which, in Math, assesses Algebra 1 and Geometry.



It is recommended, but not required, that your child have a:

TI-84 Plus Graphing Calculator

or

TI-84 Plus CE Graphing Calculator

*(Same as the TI-84 Plus but with a color display)*

NOTE: This calculator is permitted to be used for use on Math Test—Calculator portion of the SAT.

# Business and Computer Science



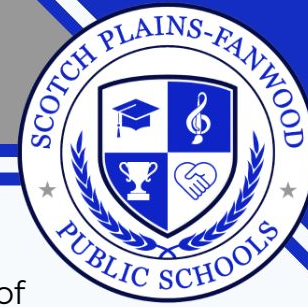
All students are required to take 2.5 credits of content in Financial, Economic Business, and Entrepreneurial Business Literacy to meet NJ graduation requirements.

## **Business Courses Available to Freshmen**

- Consumer Finance
- Introduction to Business Management
- Business Technology

Students in grade 9 are eligible to take Computer Programming Accelerated. While there is no formal prerequisite for this course, students should have strong algebraic problem solving skills and the ability to work independently to persevere through complex tasks.

# Extracurricular Opportunities



## **Mathematics**

- Tutoring Club  
*Meets before school once per week to provide support for underclassmen. It is a helpful support for 9th and 10th graders and an excellent service opportunity for upperclassmen.*
- Math League  
*Monthly competition to apply knowledge to novel problems.*  
Advisor: Jeff Koegel  
jkoegel@spfk12.org

## **Computer Science**

- Girls Who Code  
Advisor: Mini Chawla  
mchawla@spfk12.org

## **Business**

- FBLA (Future Business Leaders of America)  
Advisor: Bethany Henry  
bhenry@spfk12.org
- DECA (Marketing Club)  
Advisor: Marjorie Fitzgibbons  
mfitzgibbons@spfk12.org

*Competitive events and community service clubs. Participates in business and nonbusiness events and various educational community service projects. FBLA is responsible for events such as High School Heros. DECA runs numerous school events though marketing classes.*





*If you have any questions or concerns about mathematics, please feel free to contact me:*

*Sarah Kaeli  
skaeli@spfk12.org  
(908)889-8600 ext. 31410*



*thank  
you*