



# Superintendent's Report: STEM Realignment

February 20, 2018

Dr. Thomas Ficarra | Interim Superintendent of Schools



## **Access & Equity**

“The Board encourages students to challenge themselves by pursuing courses with the highest academic rigor that will prepare them for success in college or the workforce.”

*Board Policy*

# Normed Assessments



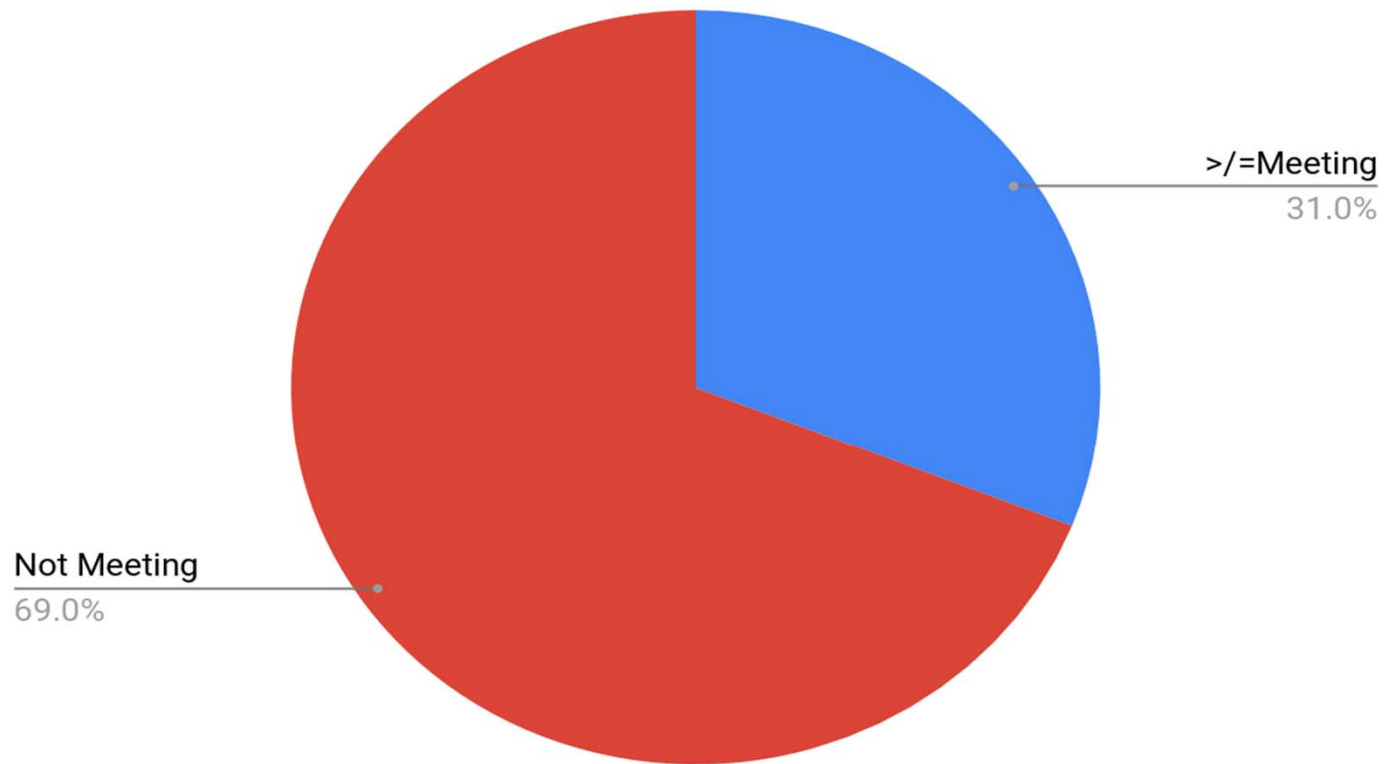
- Data warehouse to monitor assessments and student growth
- Multiple measures on-site targeted instruction
- District's normed assessments: PARCC for Math & NJBCT for Biology

# PARCC Achievement Scale

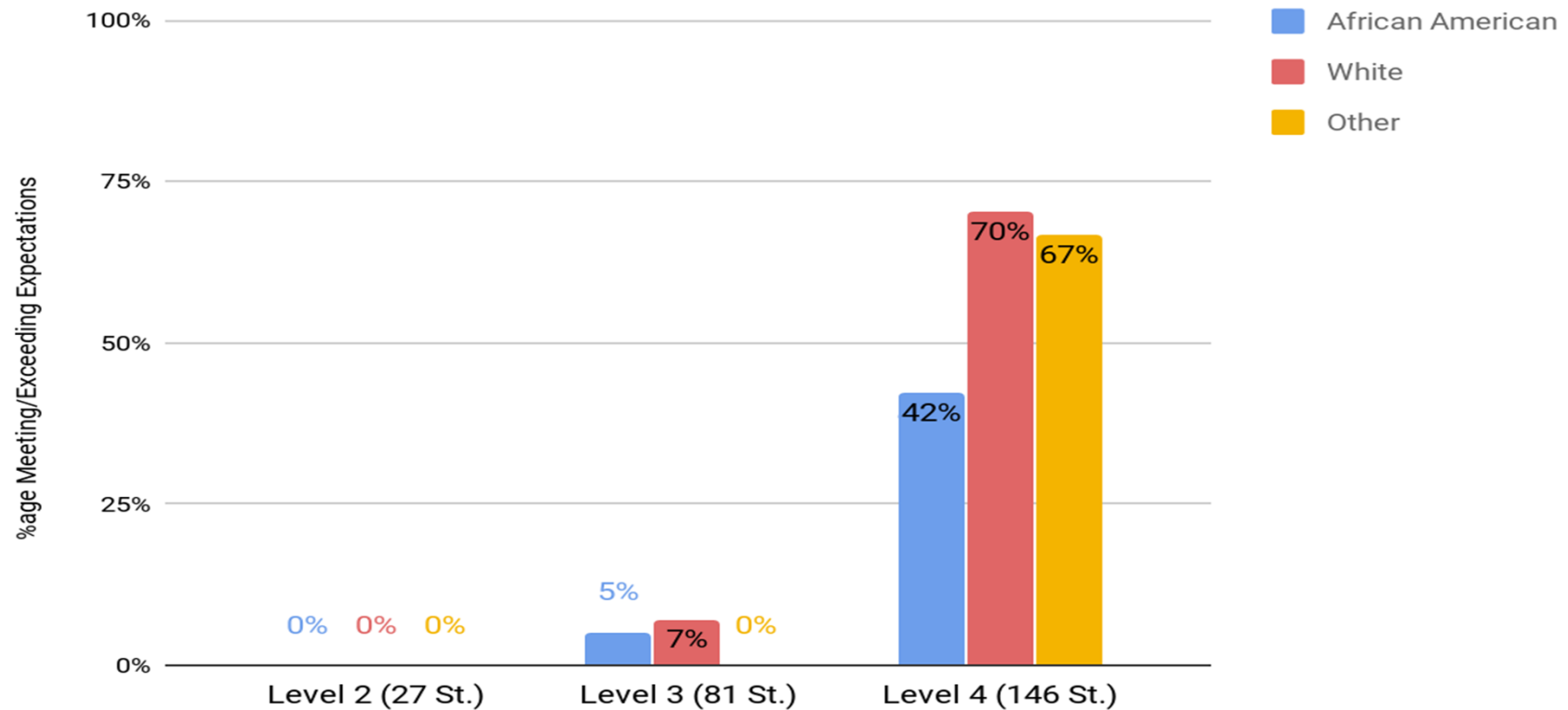
- Not Yet Meeting Expectations (Level 1)
- Partially Meeting Expectations (Level 2)
- Approaching Expectations (Level 3)
- Meeting Expectations (Level 4)
- Exceeding Expectations (Level 5)



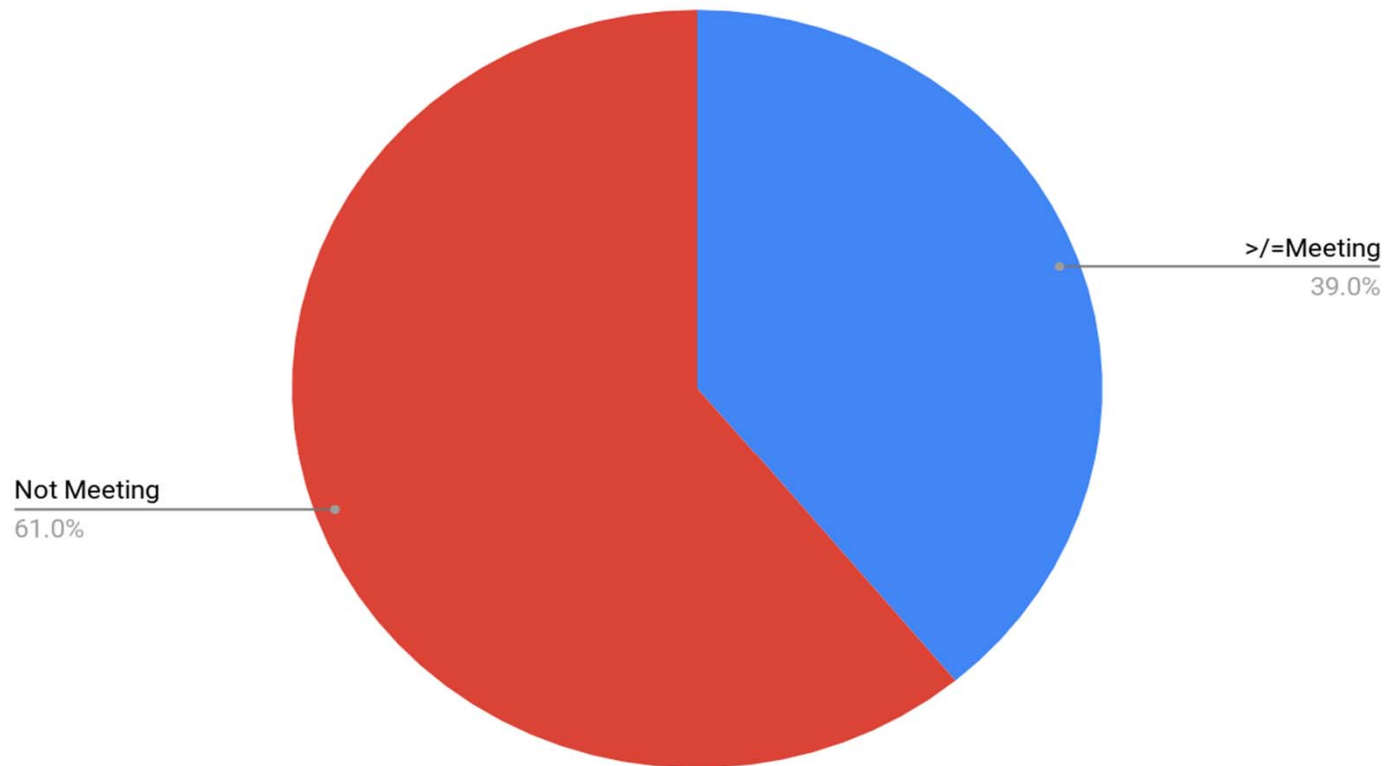
# Algebra I PARCC 2017: CHS



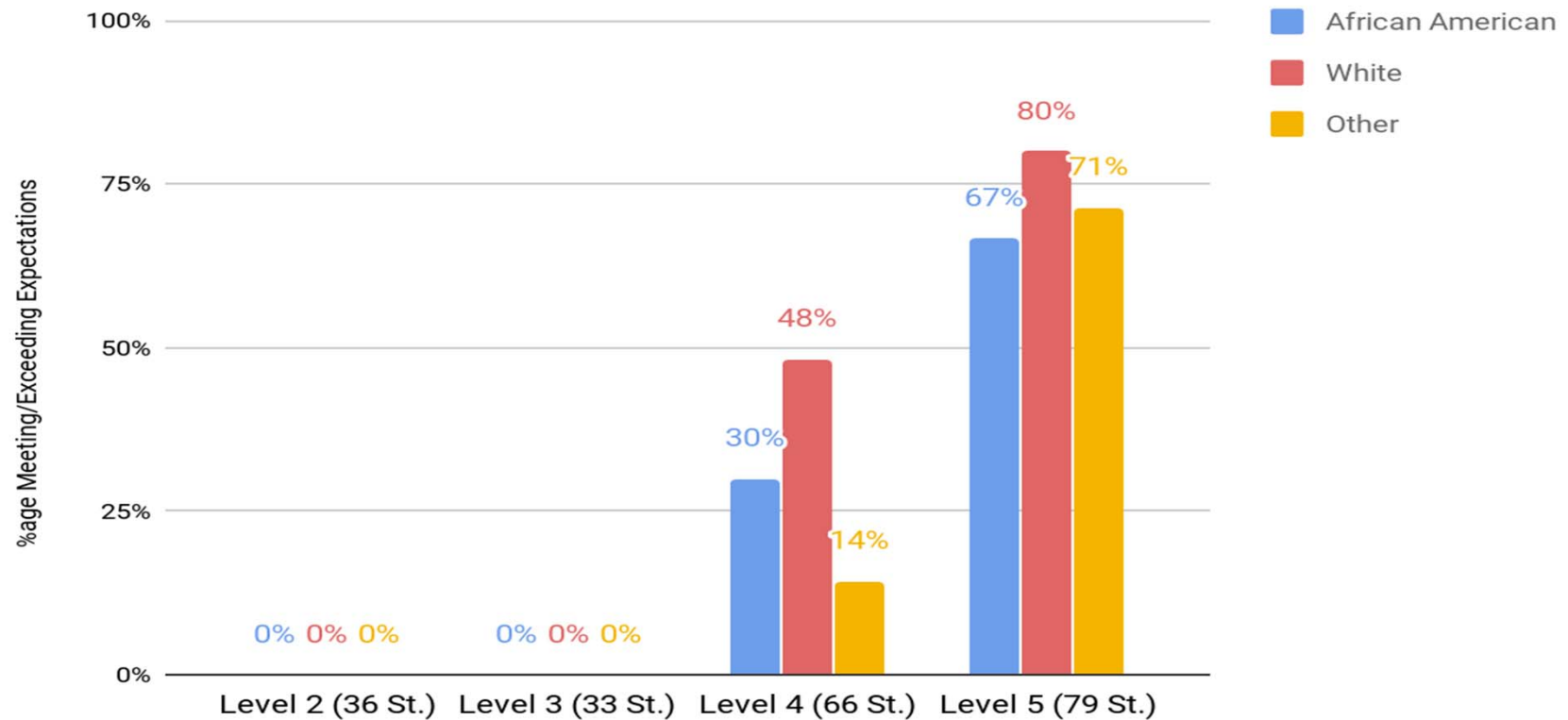
# Algebra I: PARCC Pass Rates by Levels & Sub-Groups - 16/17



# Geometry PARCC 2017: CHS



# Geometry: PARCC Pass Rates by Levels & Sub-Groups - 16/17



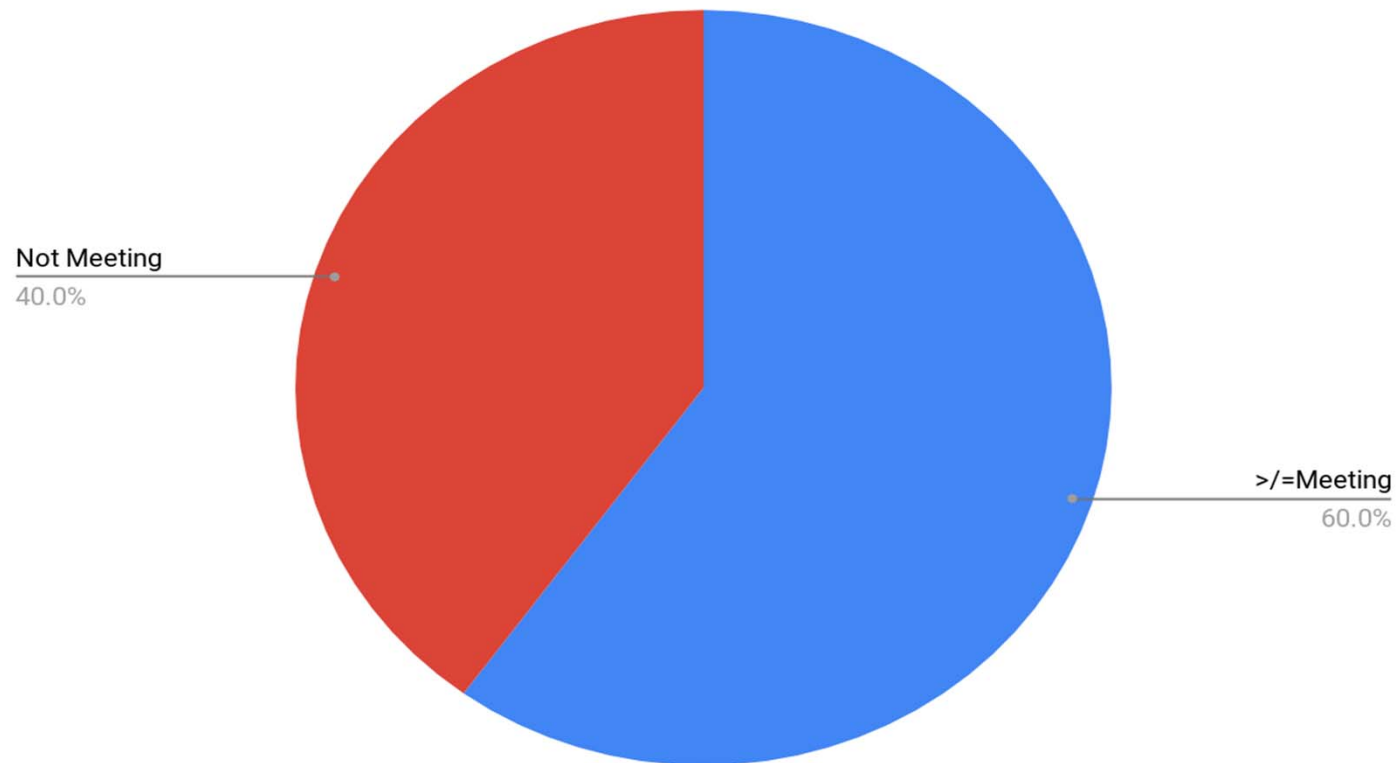


# Geometry

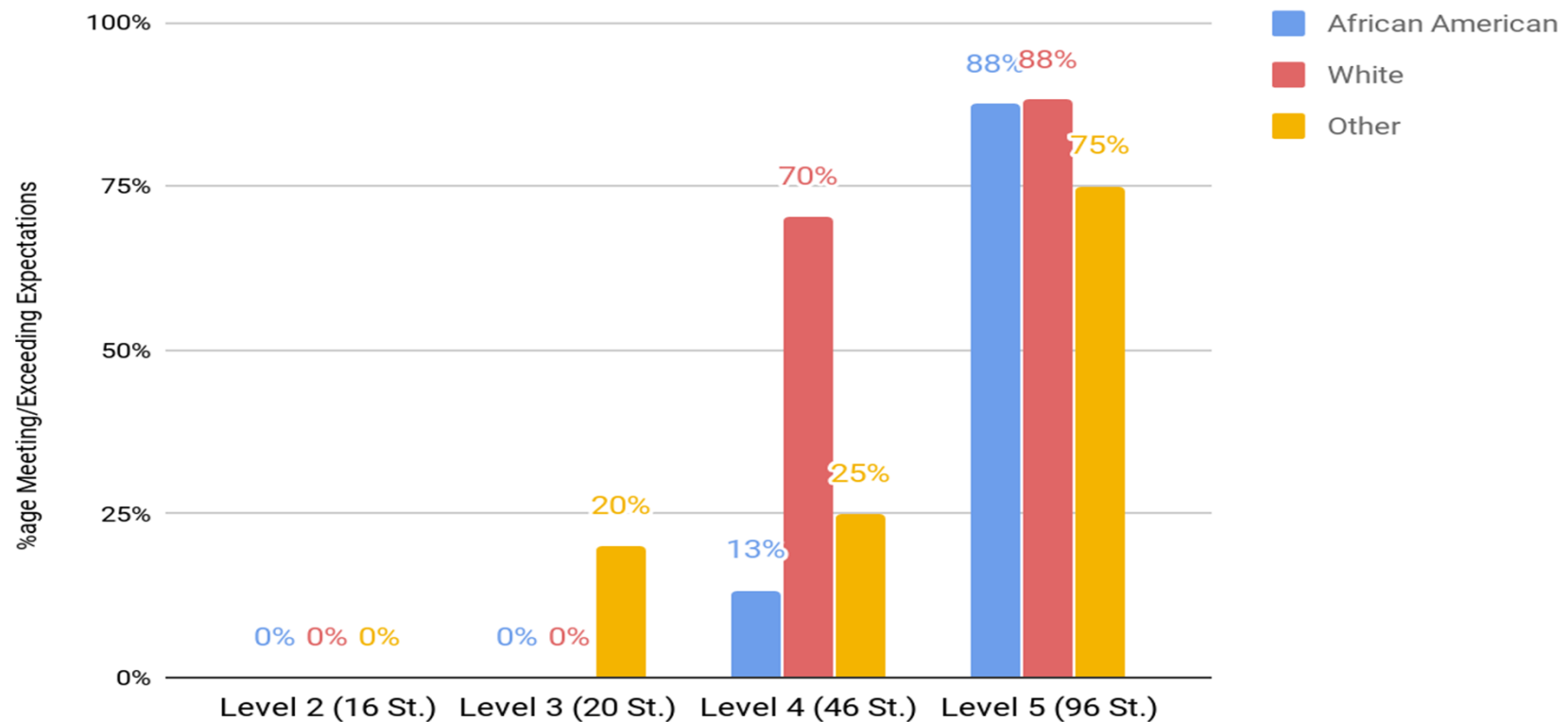


- Sixty-five (65)% of all African American students taking Geometry at CHS in 2016-17 were assigned to Levels 2 or 3.
- None of the students in Levels 2 or 3 met or exceeded expectations on Geometry PARCC 2017.

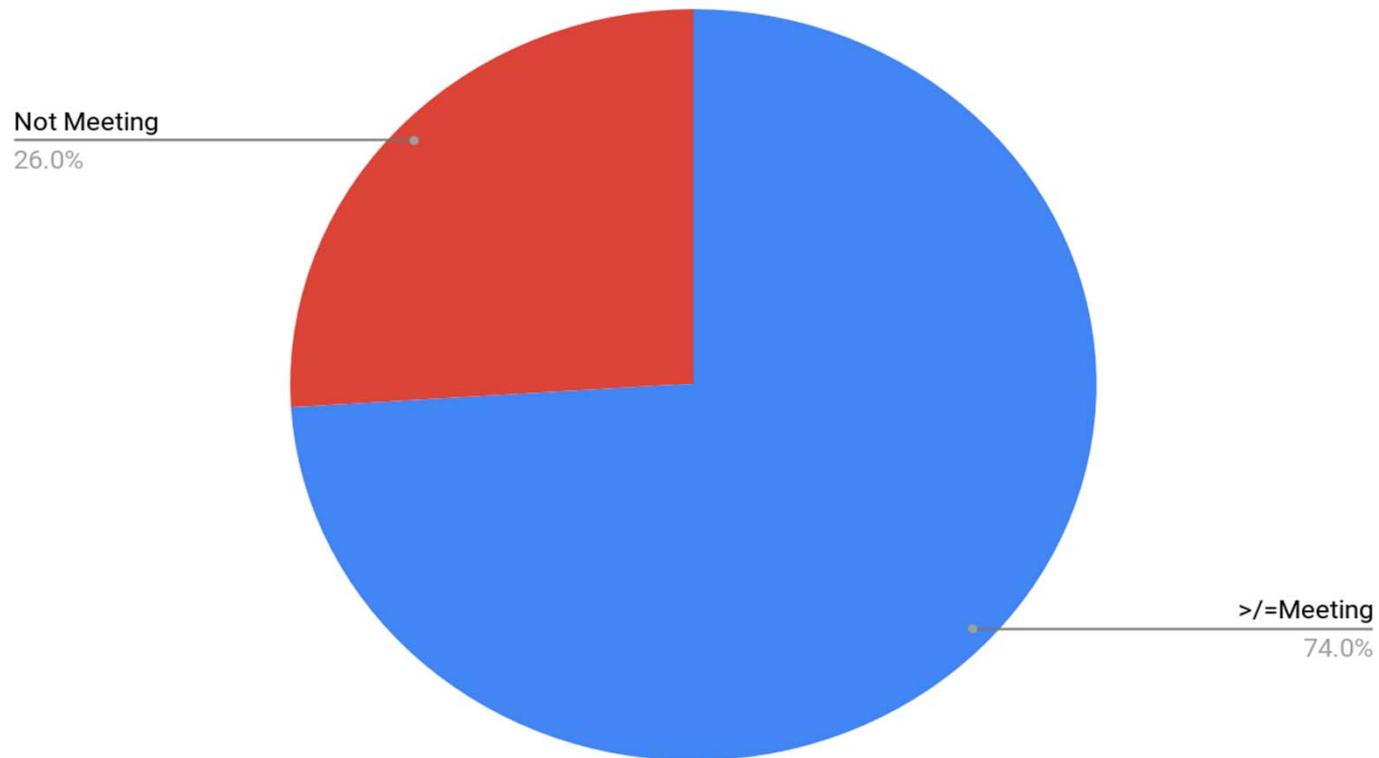
# Algebra II PARCC 2017: CHS



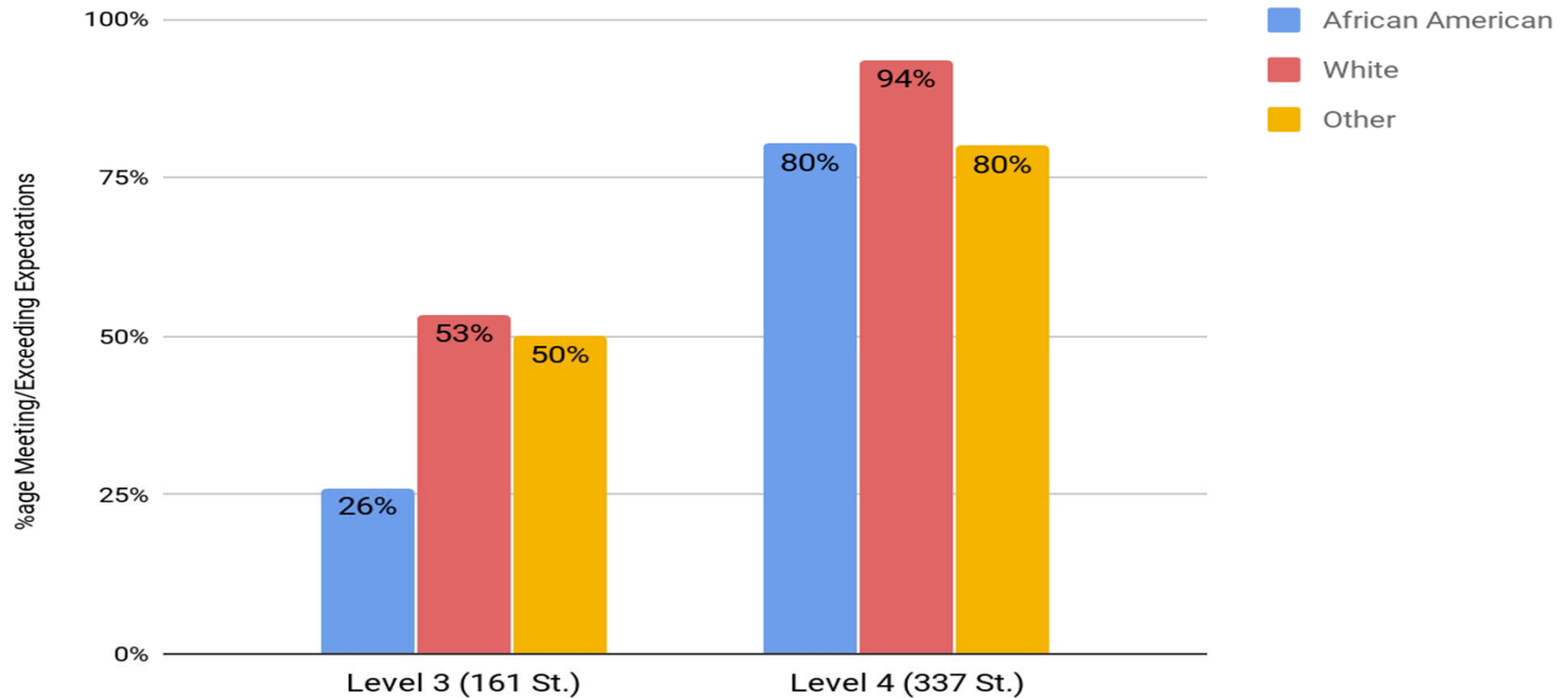
# Algebra II: PARCC Pass Rates by Levels & Sub-Groups - 16/17



# Biology NJBCT 2017: CHS



# Biology: NJBCT Pass Rates by Levels & Sub-Groups - 16/17

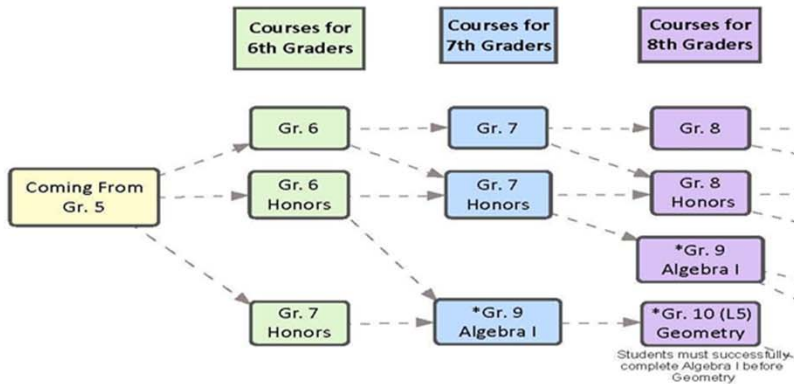


# 2016-17 Math Levels, 6-12

South Orange and Maplewood School District Secondary Mathematics

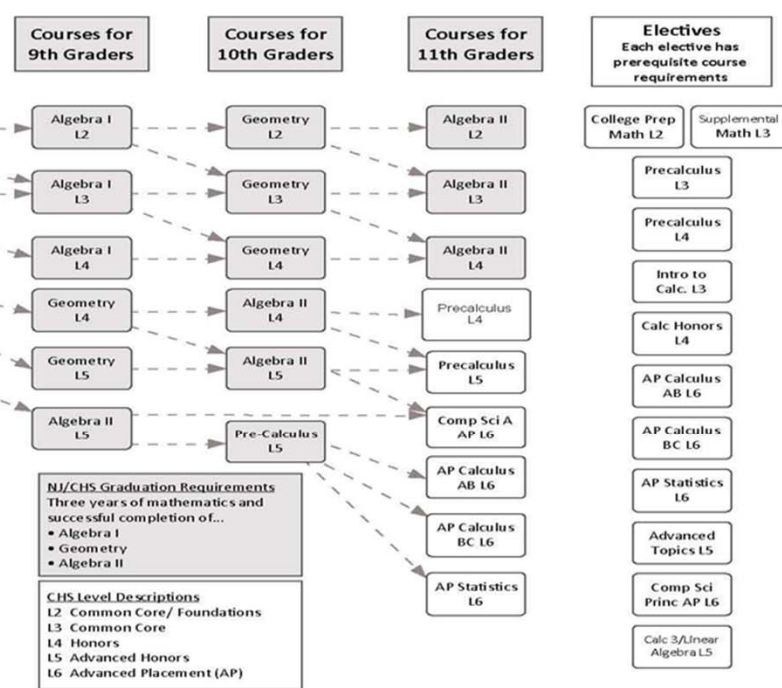


## Middle School Math Recommended Paths



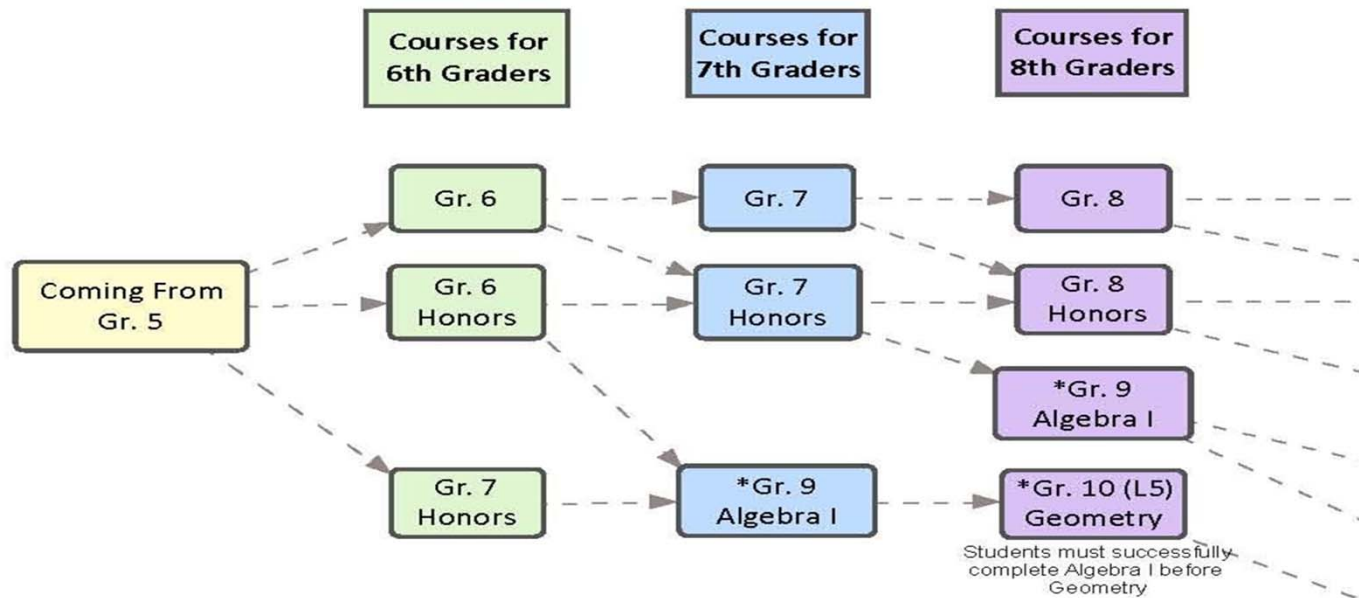
\*The courses meet the New Jersey high school graduation requirements for Algebra I and Geometry. Students must take the Algebra I and Geometry PARCC tests the year of taking each course. Course content and PARCC tests address Common Core Standards for high school Algebra I and Geometry. Columbia High School credit is awarded for successful completion of Geometry.

## High School Math Recommended Paths



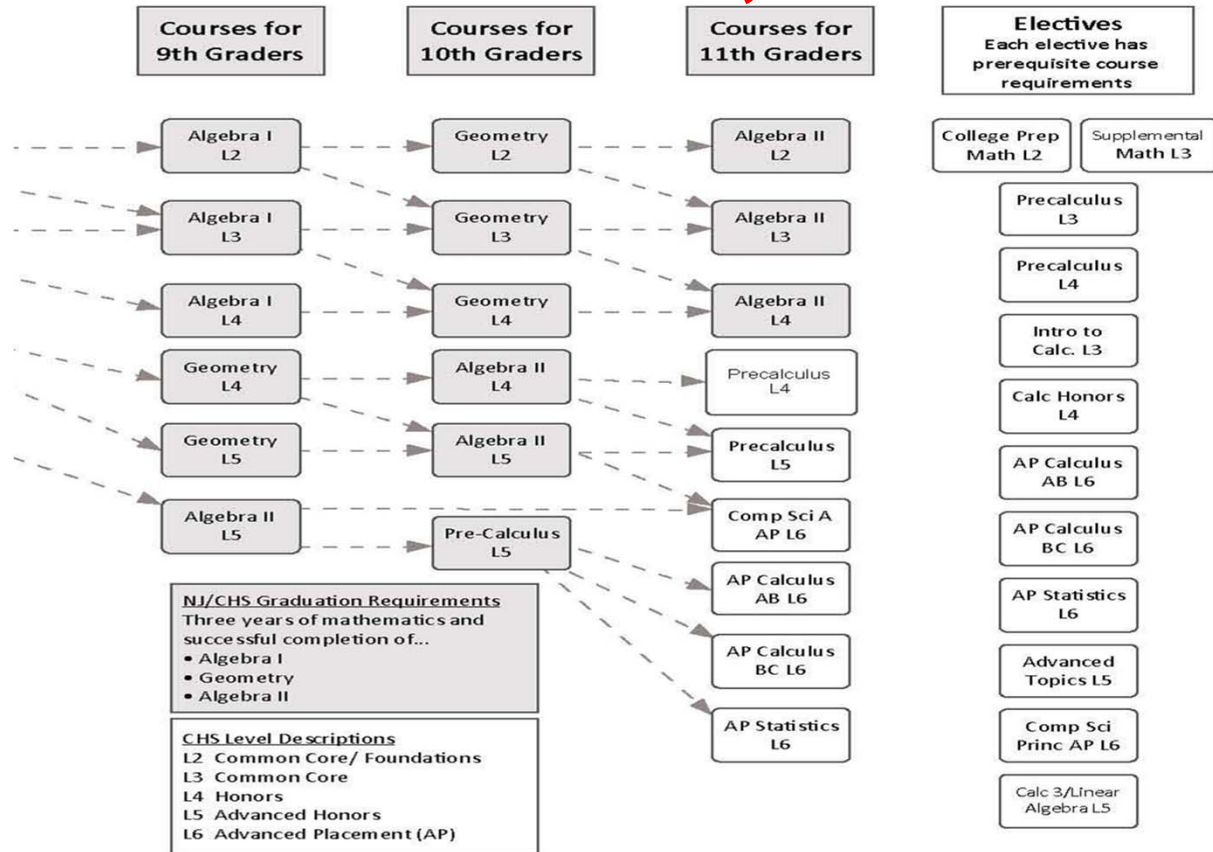
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# 2016-17 Math Levels, 6-8



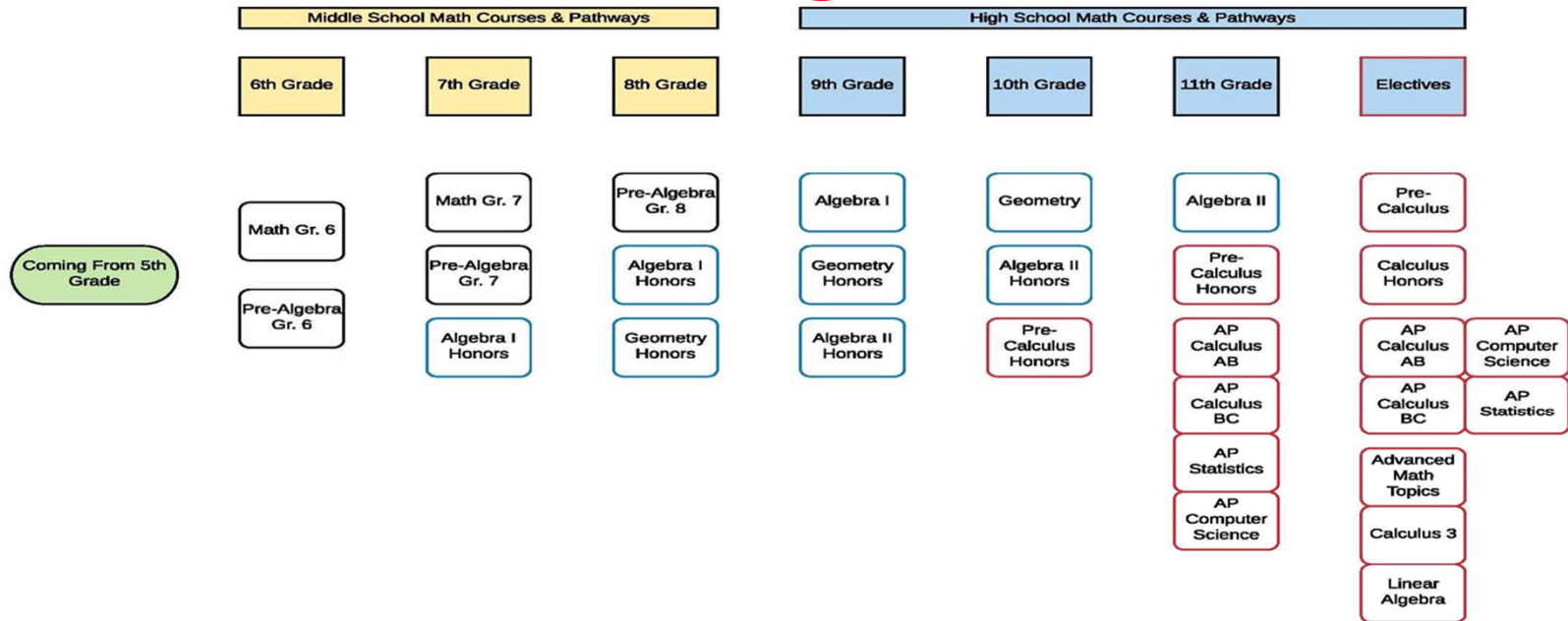
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# 2016-17 Math Levels, 9-12



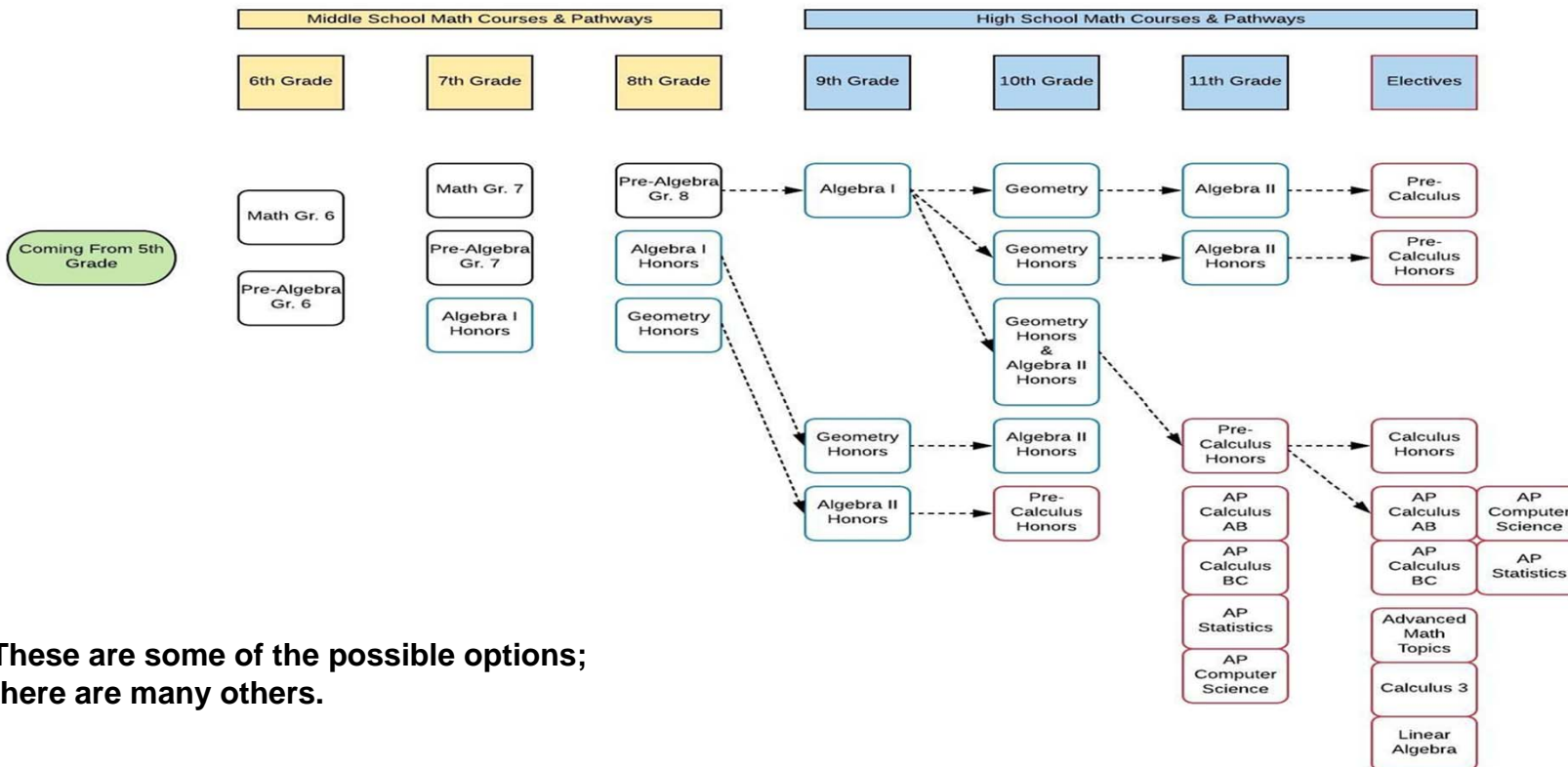


# Proposed Math Program, 6-12



\*In 10th and 11th grade,, students may select Honors or Grade Level courses in Geometry and Algebra II. (See the **Sample Options Chart** for possible course options)

# Sample of Possible Options

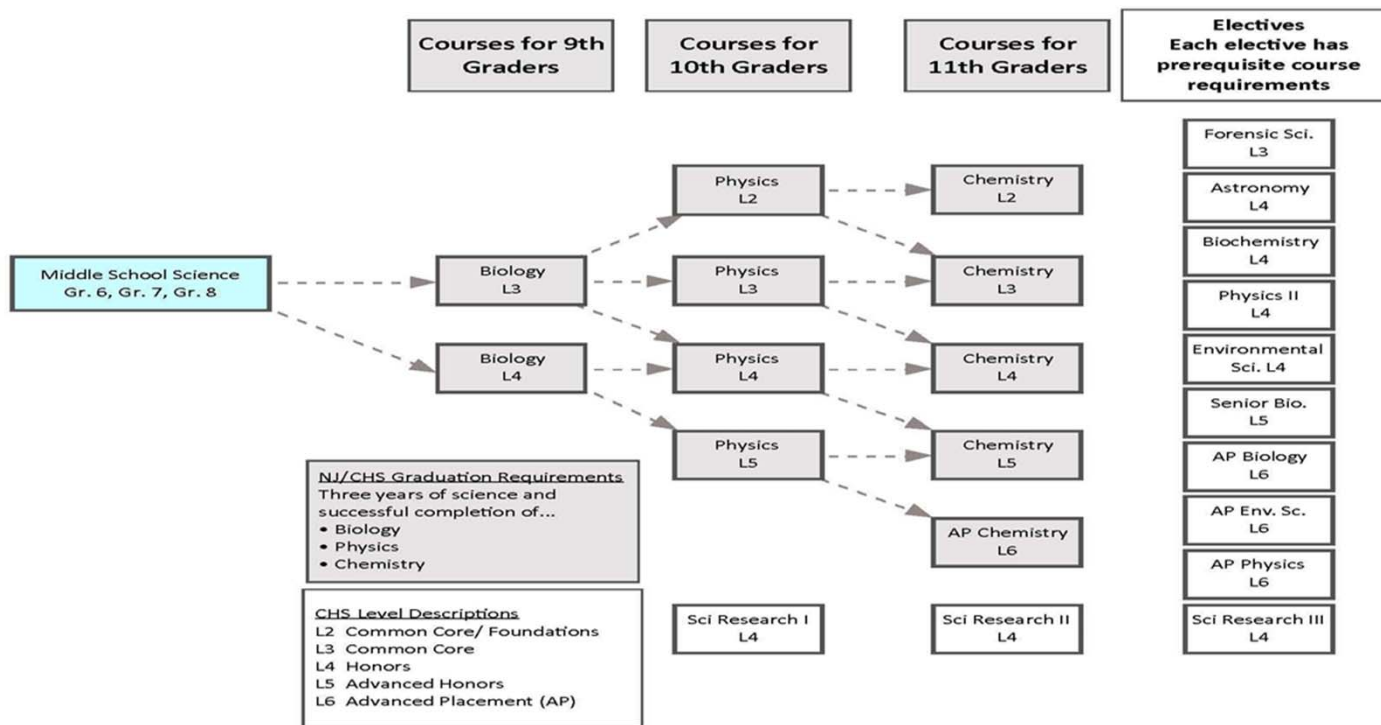


These are some of the possible options;  
there are many others.

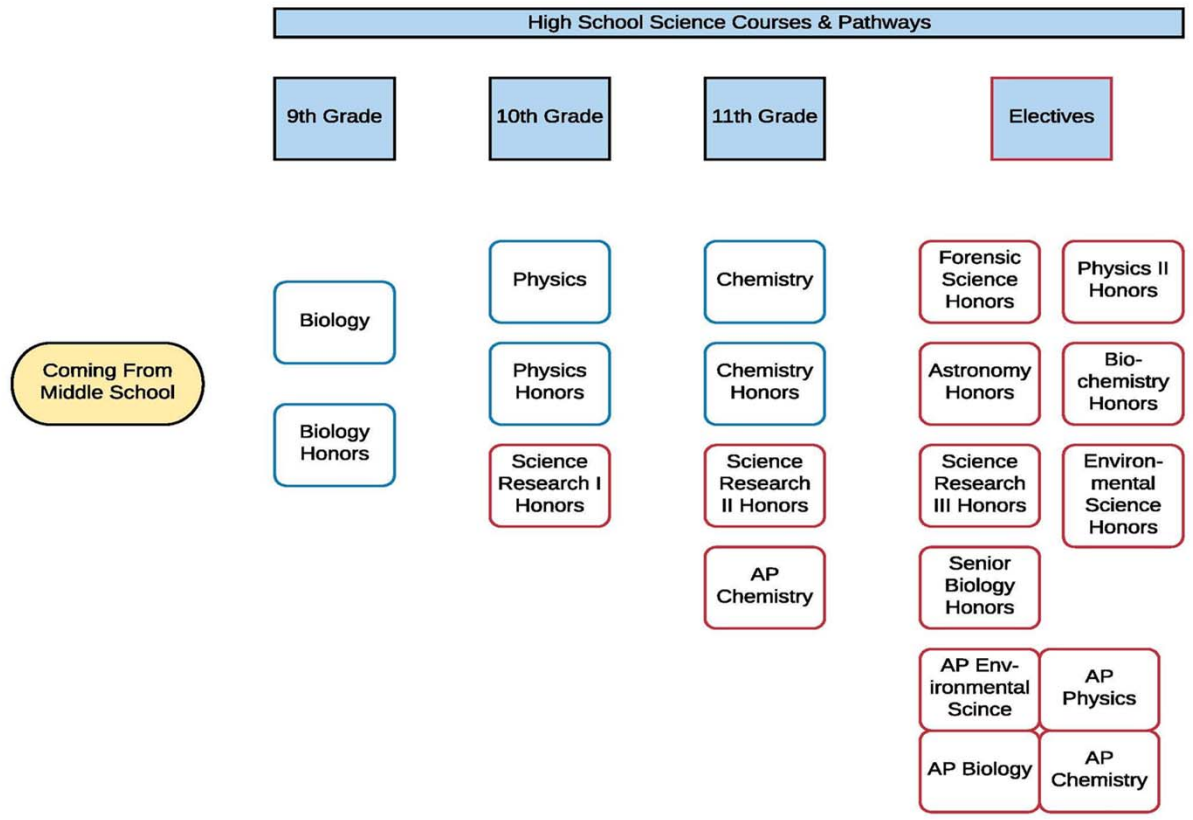
# 2016-17 Science Levels, 9-12



## South Orange and Maplewood School District Secondary Science



# Proposed Science Program, 9-12



# What are the Immediate Next Steps?

- Timeline for Guidance Implementation
- Monitoring scheduling while in process
- Publish revised Course Offering Guides and implement revised placement and scheduling process
- Collaborative Budget development meetings
  - Ongoing Professional Development
  - Researched-Best Practices
  - Student Supports/Interventions Resources (summer school, technology, class size, etc.)
  - Staffing needs
- Curriculum implementation, monitoring, and vertical articulation

# What is the Guidance Timeline For Implementation?



- Jan & Feb:** Individual meetings for each 11<sup>th</sup> grader with assigned CHS guidance counselor.
- Feb. 22- 28:** Grade level meetings to discuss course selection process. **Students bring home the directions for the online course registration process.**
- Feb 26:** Student Academic Summary Available in Parent Portal in PowerSchool for students in grades 8-11.
- Feb 26:** Transition to High School Meeting for parents/guardians of 8<sup>th</sup> graders at 7 PM at SOMS Auditorium.
- Feb 27:** 9<sup>th</sup> Grade Parent/Guardian Meeting to Review the Course Selection Process at 7PM in CHS Library.
- Feb 28:** 10<sup>th</sup> Grade Parent/Guardian Meeting to Review the Course Selection Process at 7PM in CHS Library.
- March 1:** 11<sup>th</sup> Grade Parent/Guardian Meeting to Review the Course Selection Process at 7PM in CHS Library.
- March 3:** Community Presentation on Course Selection Process. Location/time TBD.

# What is the Guidance Timeline For Implementation?

**March 5-19: Online Course Registration** - Students and parents/guardians select courses for 2018-19 school year.

**March 5-19: Students return print-out of requested courses** to school counselor once online registration is complete.

**March 5-9:** Middle School Counselors meet with 8<sup>th</sup> graders in small groups and High School Counselors meet with 10<sup>th</sup> graders in small groups.

**March 12-16:** High School Counselors meet with 9<sup>th</sup> graders in small groups.

**Spring 2018:** Students receive a tentative schedule for the 2018-19 school year to review with parents/guardians. This will include directions on how to address possible errors and/or request an additional class.

**Spring 2018:** Summer assignments posted on district website.

**Spring 2018:** Summer school information posted on district website.

**Summer 2018:** Students receive their final schedule for the 2018-19 school year.



# Frequently Asked Questions



# Do We Have Enough Time?



## February to September

- Collaboration with Stakeholders
  - Parents
  - Students
  - Teachers
  - Administrators
  - Community
- Budget Development/Resource Allocation
- Curricula Review
- Professional Learning Communities & Ongoing Professional Development
- Planning with Teachers
- Summer Enrichment Program
- Assessing Staffing Needs

# Are We Sacrificing Pedagogy to Reduce Levels?



- Promote researched-based practices
- Expand pedagogical approaches to address diverse learners
- Differentiate instruction
- Integrate technology
- Implement common assessment practices
- Utilize data-driven instruction
- Assess K-5 & 6-8 curriculum implementation and professional development

# Are We Sacrificing Rigor to Reduce Levels?



- Maintain rigorous learning environments
- Still have all AP, Honors, and post-AP (Math only) courses:
  - > AP Calculus AB
  - > AP Calculus BC
  - > AP Statistics
  - > AP Computer Science
  - > Honors Calculus
  - > Advanced Topics in Mathematics
  - > Calculus 3
  - > Linear Algebra
  - > AP Biology
  - > AP Chemistry
  - > AP Physics
  - > AP Environmental Science
  - > Forensic Science Honors
  - > Astronomy Honors
  - > Biochemistry Honors
  - > Physics II Honors
  - > Environmental Science Honors
  - > Senior Biology Honors
  - > Science Research Honors I, II, III
- Current Levels 2 and 3 courses are not meeting standards-based curriculum expected by State Department of Education.

# What is the Best Course for My Child?



- 1. How does the course selection process relate to the Access and Equity option to select any course level?**
- 2. My child doesn't like mathematics. If he/she takes grade level courses, will they still be ready for college?**
- 3. My child has accommodations with a Section 504 Plan. Will this limit math level opportunities?**
- 4. My child loves math, but doesn't always test well. How should we make a course decision?**

# What are the Logistics of Selecting Courses?



5. Will my child be locked into a mathematics path based on their 6th grade math selection?
6. How will summer school support my child?
7. What courses are included on the high school transcript? What courses are included in the high school GPA calculation?