



Supporting the Implementation of HB 986: *Using Intentional Collaboration, Communication, & Curriculum Tools*

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Who's in the room?



Goals for the session:

- Overview HB 986
- Review current data regarding NC Math 1 participation by middle school students
- Critical factors to support effective implementation
 - Collaboration efforts
 - Communication tools and strategies
 - Curriculum considerations and planning



What is HB 986?

(Session Law 2018-32)

House Bill 986 passed in 2018 and covers a variety of topics, including Enrollment in Advanced Mathematics Courses.

This legislation requires the local boards of education to provide advanced mathematics courses and to enroll students, who score a Level 5 on Math EOGs and EOCs, in the next advanced mathematics course.



Legislation

(b) When advanced courses are offered in mathematics, any student scoring a **level five on the end-of-grade or end-of-course test for the mathematics** course in which the student was most recently enrolled shall be **enrolled in the advanced course for the next mathematics course** in which the student is enrolled.

A student in seventh grade scoring a level five on the seventh grade mathematics end-of-grade test **shall be enrolled in a high school level mathematics course in eighth grade.**



Legislation, continued

(b, continued) “**No student who qualifies under this subsection shall be removed** from the advanced or high school mathematics course in which the student is enrolled **unless a parent or guardian of the student provides written consent** for the student to be excluded or removed from that course.”



NC Math 1 Participation in middle school

Consider pre and post HB986 participation data



31,170 students in Grade 8 had an NC Math 1 assessment score in 2017–18

Break down of their 2015–16 Grade 6 Math EOG Levels

5: 15,590
4: 11,298
3: 1,143
2: 1,078
1: 351

Break down of their 2016–17 Grade 7 Math EOG Levels

5: 17,179
4: 10,724
3: 1,010
2: 992
1: 375

15,144 (48.6%) had an AIG designation

- 890 students didn't have a Grade 7 Math EOG score in 2016–17
- 1,710 students didn't have a Grade 6 Math EOG score in 2015–16

20,440 students made a Level 5 on the Grade 7 Math EOG in 2016–17

Of these students, 2,652 did not have an NC Math 1 Score in 2017–18

Of those, 2,519 were proficient

Of these students, 17,179 had an NC Math 1 Score in 2017–18

Of those, 17,108 were proficient

11,836 (57.9%) had an AIG designation

- 611 students did not have a grade 8 score

22,414 students made a Level 5 in the
Grade 7 Math EOG in 2017–18

56.1% had an AIG designation

~16,500

Number of students enrolled in NC Math 1 course at first
2018–19 data collection

~3,300

Number of students that already took NC Math 1 prior to
2018–19

~500

Number of students not enrolled in NC Schools at first
2018–19 data collection

~2,100

Collaboration Efforts

Create an integrated (cross disciplinary) team at the district level to:

- Analyze student data to determine the needs, based on the legislation.
- Consider the district's advanced mathematics offerings across grades 3-12 and develop a plan to include all Level V students.
- Develop curriculum resources to support advanced mathematics learning experiences and instruction.



Communication Tools and Strategies

Create and implement a communication plan and resources for parents, teachers, and school administrators.

What do the following groups need to know:

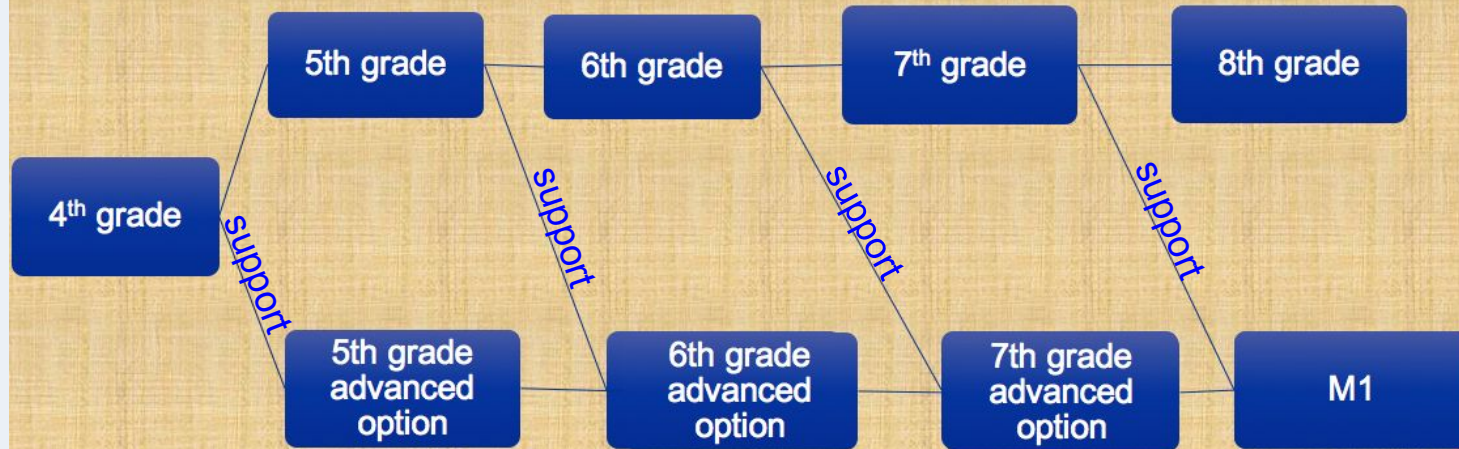
- Parents: Long-term planning, Written consent
- Teachers: Understanding data, math standards
- Administrators: Understanding the legislative requirements and how student data impacts decisions about advanced offerings



**What are the considerations
for supporting the student
and ensuring that he/she can
be successful beyond NC
Math 1?**



Math Pathways



Math Pathways

7th

8th

M1

support



What 8th grade standards do students miss if they take the 7th grade to M1 path?

- The Number System
- Expressions and Equations
- Geometry
- Functions
- Statistics and Probability
- By the way...that's all of them!



Let's take a closer look at a specific domain?

- Expressions and Equations Domain
 - NC.8.EE.1
 - NC.8.EE.2
 - NC.8.EE.3
 - NC.8.EE.4
 - NC.8.EE.7
 - NC.8.EE.8



Let's take a closer look at a specific standard?

- NC.8.EE.1 Develop and apply the properties of integer exponents to generate equivalent numerical expressions

Ex. Rewrite the expression such that it does not contain an exponent : $2^3/5^2$



Regular Standards Progression

M2

M1

8th grade

7th grade

**NC.M2.N-
RN.2**

NC.M1.N-
RN.2

NC.8.EE.1

No
Exponent
Standard

M2

M1

7th

**NC.M2.N-
RN.2**

NC.M1.N-
RN.2

No
Exponent
Standard



Regular Standards Progression

M2

M1

8th grade

7th grade

$(x^2y)^{1/2}$

$$\frac{(3m^2p^{-2}q)^3}{9m^{-3}q^3}$$

$$\frac{2^2}{2^6}$$

5^2

M2

M1

7th grade

$(x^2y)^{1/2}$

$$\frac{(3m^2p^{-2}q)^3}{9m^{-3}q^3}$$

5^2



Let's take a closer look at another domain?

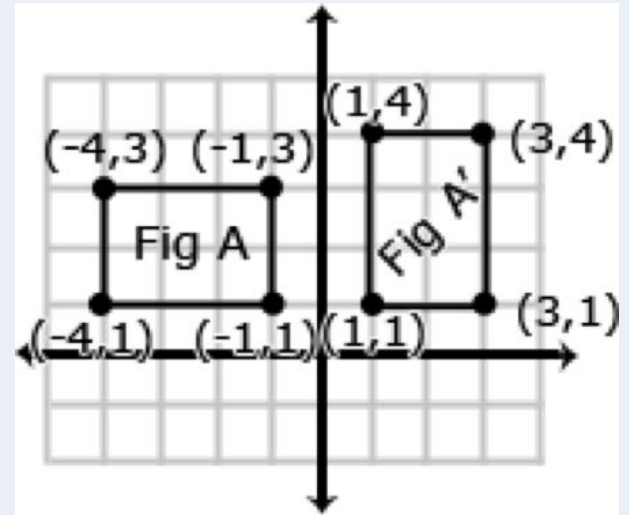
- Geometry Domain: Understand congruence and similarity using physical models, transparencies, or geometry software
 - NC.8.G.2
 - NC.8.G.3
 - NC.8.G.4



Looking at another standard?

- NC.8.G.2 Use transformations to define congruence

Ex. The two figures are congruent.
Identify characteristics of the two figures that supports this fact.



Regular Standards Progression

M2

M1

8th grade

7th grade

**NC.M2.G-
CO.2**

No
Transformation
Standard

NC.8.G.2

No
Transformation
Standard

M2

7th

**NC.M2.G-
CO.2**

No
Transformation
Standard



What can schools do to support students on these non-traditional paths?

- Collaborate vertically (5th – 8th grade teachers get together to talk about the path to Math 1 and 2)
- Discuss standards missed if students are on non-traditional path, movement to advanced classes? How to plan for this?
- Discuss/plan how to prepare or support students on non-traditional path, movement to advanced classes (If students land in M2 without required prerequisite standards, i.e. transformations, how are they supported? Do we add it on at the end of 8th grade?)
- Decide what options are viable/feasible for your school to serve students on path to M1, (compacted classes, advanced classes, add content at end of regular classes?)
- Discuss/plan how to strategically pace classes to avoid missing standards when switching paths to M1?
- Discuss/plan how to support students unfamiliar with the structure and pace of advanced classes?
- Discuss how to structure regular ed math classes to resemble advanced classes to eliminate major adjustments when transferring into advanced classes, such as making sure all classes have rigor.
- Decide where standards can go, how far down can they go, and how to structure them for progression.
- Who can I contact for help? Can curriculum makers (IM, etc) or other districts help?



Questions?



Next steps:

Convene HB 986 work group to develop:

- Curriculum resources
- Implementation resource to support collaboration efforts and decision making process
- Sample communication tools and resources



We must synergize our efforts to ensure that the potential of all learners is optimized!

Contact Us!

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