

A Treasure Hunt through the Common Core State Standards for Mathematics and Appendix A (Answer Key)

Directions: Knowing where to find information is just as important as knowing the information. A question can be answered easily and effectively when one knows how to use the available tools. Using the Common Core State Standards in Mathematics and Appendix A, search with others at your table (in groups of 2, 3, or 4) to navigate through these new documents and find the answers to the following questions...

Use the Common Core State Standards for Mathematics to help answer questions

1–20

1. According to the Introduction, what are the 8 standards for Mathematical Practice?

#	Mathematical Practice
1	MAKE SENSE OF PROBLEMS & PERSEVERE IN SOLVING THEM
2	REASON ABSTRACTLY & QUANTITATIVELY
3	CONSTRUCT VIABLE ARGUMENTS & CRITIQUE THE REASONING OF OTHERS
4	MODEL WITH MATHEMATICS
5	USE APPROPRIATE TOOL STRATEGICALLY
6	ATTENTION TO PRECISION
7	LOOK FOR AND MAKE USE OF STRUCTURE
8	LOOK FOR AND EXPRESS REGULARITY IN REPEATED REASONING



Bookmark this location.

2. Read the section **Connecting the Standards for Mathematical Practice to the Standards for Mathematical Content** on page 8. Create a one sentence summary for this section that is important for teachers to know.

MATHEMATICAL PRACTICES ARE HOW STUDENTS INTERACT WITH THE MATHEMATICAL CONTENT (WHAT STUDENTS LEARN) AND THE STANDARDS THAT CALL STUDENTS TO "UNDERSTAND" IS WHERE BOTH PRACTICES AND CONTENT CAN BE ASSESSED.

3. What is the Common Core's equivalent for New Hampshire's Habits of Mind (Articulated in "New Hampshire PreK-16 Numeracy Action Plan for the 21st Century" February 2010)?

Common Core's Eight Standards for Mathematical Practice

4. Find the guide labeled “How to read the Grade Level Standards”. New Hampshire uses different labels for various components of the standards. What is the Common Core’s equivalent for NH:

Content Strands Domain

Stems Cluster

GLEs and GSEs Standard

5. What five Domains are listed for Kindergarten? (What are the abbreviations for Grades 1-5)?

#	Domains	1	2	3	4	5
1	Counting and Cardinality (CC)					
2	Operations and Algebraic Thinking (OA)	(OA)	(OA)	(OA)	(OA)	(OA)
3	Number and Operations in Base Ten (NBT)	(NBT)	(NBT)	(NBT)/ (NF)	(NBT)/ (NF)	(NBT)/ (NF)
4	Measurement and Data (MD)	(MD)	(MD)	(MD)	(MD)	(MD)
5	Geometry (G)	(G)	(G)	(G)	(G)	(G)

6. In what grade are fractions introduced, and on what page can this be found?

Grade 3, pg 24 (formal intro), grade 1, pg 16 and grade 2, pg 20 (informal intro thru geometry)

Highlight this information in the text.

A Close Look at the
Grades 6-8

Use a Post-It Note to tab the beginning of each grade level.

- Grade 6 on page 39
- Grade 7 on page 46
- Grade 8 on page 53

Grade 6

7. What are the four critical areas for Grade 6?

a. SOLVING A VARIETY OF PROBLEMS INVOLVING RATIOS AND RATES
b. EXTEND THE IDEA OF NUMBER TO ALL RATIONAL NUMBERS
c. UNDERSTANDS & USES VARIABLES, EXPRESSION & EQUATIONS
d. DESCRIBE & SUMMARIZE DATA INCLUDING MEASURES OF CENTER AND VARIABILITY

8. What new Domain is introduced in Grade 6? Ratios & Proportions (Statistics & Probability)

Highlight this information in the text.

9. In what grade is that Domain completed? Grade 7 (high school)
 Highlight this information in the text.

Grade 7

10. What are the four critical areas for Grade 7?

a.	UNDERSTANDING OF AND APPLYING PROPORTIONAL RELATIONSH
b.	WORKING WITH EXPRESSIONS AND LINEAR EQUATIONS W/ RATIONAL NUMBERS
c.	SOLVE PROBLEMS INVOLVING AREA, SURFACE AREA AND VOLUME
d.	DRAWING INFERENCES ABOUT POPULATIONS USING SAMPLES

Grade 8

11. What are the three critical areas for Grade 8?

12.

a.	Linear equations – writing, graphing & solving, including systems of equations
a.	Introduction to functions
b.	Congruence & similarity of 2D figures and Pythagorean Theorem

13. What domain is present in Grade 6 and 7, but not in Grade 8?

Ratios and proportional relationships

14. What domain is introduced in Grade 8?

Functions

14. What is an ‘Ah ha’ you have about the K-8 Standards? An ‘Oh No!’?

Ah ha: _____

Oh No! _____

15. Locate **the high school standards** and bookmark this location in the document. The 9-12 Standards are organized into what 6 Conceptual Categories?

#	Conceptual Categories
1	Number and Quantity
2	Algebra
3	Functions
4	Modeling
5	Geometry
6	Statistics and Probability

16. What is unique about the high school “Modeling” Conceptual Category?

There is no list of standards for this conceptual category; it is integrated/entwined within the other 5 Remaining conceptual categories (does not stand alone!).

Highlight this information in the text.

17. **High School introduction**

page 57.

a. What symbol indicates the mathematics that students need to take advanced courses?

The symbol, “+”

b. What does a * symbolize in the standards?

Modeling standard

c. What does it mean if a cluster heading has a *?

All standards in that cluster are modeling standards

18. What is an ‘Ah ha’ you have about the high school Standards? An ‘Oh No!’?

Ah ha: _____

Oh No! _____

19. What is found at the beginning of each grade level and Conceptual Category?

A narrative and grade/conceptual category overview

20. Find Tables 1 & 2 in the Glossary and bookmark this location. What is their purpose? Who should use these?

Provide common examples for addition, subtraction, multiplication and division situations. K-12 teachers.

Use the Appendix A document to help answer questions 21 - 28

21. In the Overview, what 2 areas require careful attention while developing the pathways into instructional programs?

Modeling and the mathematical practices

Highlight this information in the text.

22. What are the 4 model course pathways:

#	Model HS Course Pathways
1	Traditional Approach (High School)
2	Integrated Approach (High School)
3	Compacted Traditional Approach (Middle School)
4	Compacted Integrated Approach (Middle School)

23. What 5 strategies are suggested as helpful for students requiring additional support?

#	Strategies for Support
1	Creating a school-wide community of support for students
2	Providing students a “math support” class during the school day
3	Extended class time (or blocking of classes) in mathematics
4	After-school tutoring
5	Additional instruction during the summer

Bookmark this location.

24. Find the guide labeled “How to Read the Pathways”. How many parts does each pathway have?

Two

25. How is the overview of the pathway organized?

By courses and by conceptual category, showing clusters and standards

26. In the second part of the pathway, each course contains what 3 components?

#	Components
1	an introduction to the course and a list of the units in the course
2	unit titles and unit overviews
3	units that show the cluster titles, associated standards and instructional notes

Highlight this information in the text.

27. On what pages do you find information regarding High School Mathematics in the Middle School, Middle School Acceleration and Other Ways to Accelerate Students? 80-81

Bookmark this location.

28 Appendix A will be helpful for whom?

All teachers, guidance counselors, curriculum coordinators, students, parents, and administrators