K – 8 Mathematics Survey Questions

Based on NC State Board of Education policy, standards are to be reviewed every 5 years. For the K-8 Mathematics Standards groups of teachers, district leaders, and university faculty were brought together from various regions of the state to review all the stakeholder feedback provided on current practice and content standards in the NC Standard Course of Study for Mathematics. This data review committee made recommendations for revision to the current standards. Following that, a subset of the Review Team served as the Revision & Writing Team for the current draft of revised mathematics standards. Both the Data Review Committee and the Revision/Writing Teams paid close attention to the feedback provided by various surveys of educators, parents, community members, the Academic Standards Review Commission's (ASRC) recommendations as well as focus groups made up of NC teachers and district leaders.

The Process of Providing Feedback

Local Education Agencies will receive the draft of the NC Mathematics Standards during the week of January 16 and have until **Friday**, **February 10** to provide feedback via the online survey. One survey link is provided per LEA, so LEAs are encouraged to bring in teachers and teacher-leaders who are very knowledgeable about elementary or middle school mathematics. The questions on the survey will be provided below for convenience.

Remember when providing feedback on this draft of the standards:

- Educational standards define the minimum knowledge and skills that all students in North Carolina should demonstrate by the end of the school year.
- Standards should be concise, written descriptions of what students are expected to know and be able to do by the end of each grade level.
- Standards should not specifically support any curriculum or assessment method.
- Expectations expressed in a grade level are not repeated in other grade levels.
- Further explanation of standards will be found in the instructional support documents (e.g, Unpacking Documents).

Survey Questions:

* Questions 1 – 6 ask for demographic information.

7. * Naming Convention

As the revised standards are modified from the current standard course of study for math, there are some gaps in numbering due to the removal of some standards in a grade level. For example, in Grade 3, 3.OA.4 and 3.OA.6 have been removed and the remaining revised standards are 3.OA.1, 3.OA.2, 3.OA.3, 3.OA.5, 3.OA.7, 3.OA.8, 3.OA.9. Based on this information, which option do you prefer?

- Keep the standard notation of the current standard course of study, even if a number is skipped due to the removal of a standard.
- Renumber the standards to eliminate numbering gaps.
- 8. Please indicate what supports you would need to implement the revised standards.
- 9. * Based on the proposed draft, our LEA prefers to implement revised standards in:
 - o **2017 2018**
 - o **2018 2019**

* An answer is required.

K – 2 Standards Review:

Please reference the elementary overview for a summary of the major changes at each grade level. For each domain, provide comments about the content of the standards. *Please reference specific standards when appropriate.*

10. Counting and Cardinality

What is your professional opinion about the content in the revised standards for this domain?

11. Operations and Algebraic Thinking

What is your professional opinion about the content in the revised standards for this domain?

12. Number and Operations in Base Ten

What is your professional opinion about the content in the revised standards for this domain?

13. Measurement and Data

What is your professional opinion about the content in the revised standards for this domain?

14. Geometry

What is your professional opinion about the content in the revised standards for this domain?

The Data Review Committee and Writing Teams paid close attention to the Academic Standards Review Commission's (ASRC) recommendations. Use the scale to indicate if the DRAFT mathematics standards meet the given criteria. *Please reference specific standards in the comments when appropriate.*

15. Rigor

The K-2 revised standards cover conceptual understanding, procedural fluency, and mathematical reasoning.

Strongly AgreeAgreeDisagreeStrongly DisagreeComments: (i.e. Where do you see rigor? Where is more rigor needed?)Strongly Disagree

16. Coherence

The K-2 revised standards convey a unified vision of mathematics, establish connections among
the major areas of study, and show a meaningful progression of content across the grades.
Strongly AgreeAgreeDisagreeStrongly DisagreeComments:

17. Clarity

The K-2 revised standards are clear and concise.

Strongly Agree	Agree	Disagree	Strongly Disagree
Comments: (i.e. Where c	do you see more clarity?	? Where is additional c	larity needed?)

18. Measurability

The K-2 revised standards are measurable, observable, or verifiable in some way.Strongly AgreeAgreeDisagreeStrongly Disagree

Comments: (i.e. To what degree are the revised standards measurable? Identify the standard(s) that are not measurable.)

<u>3 – 5 Standards Review:</u>

Please reference the elementary overview for a summary of the major changes at each grade level. For each domain, provide comments about the content of the standards. *Please reference specific standards when appropriate.*

19. Operations and Algebraic Thinking

What is your professional opinion about the content in the revised standards for this domain?

20. Number and Operations in Base Ten

What is your professional opinion about the content in the revised standards for this domain?

21. Number and Operations – Fractions

What is your professional opinion about the content in the revised standards for this domain?

22. Measurement and Data

What is your professional opinion about the content in the revised standards for this domain?

23. Geometry

What is your professional opinion about the content in the revised standards for this domain?

The Data Review Committee and Writing Teams paid close attention to the Academic Standards Review Commission's (ASRC) recommendations. Use the scale to indicate if the DRAFT mathematics standards meet the given criteria. *Please reference specific standards in the comments when appropriate.*

24. Rigor

The 3-5 revised standards cover conceptual understanding, procedural fluency, and mathematical reasoning.

Strongly AgreeAgreeDisagreeStrongly DisagreeComments: (i.e. Where do you see rigor? Where is more rigor needed?)Strongly Disagree

25. Coherence

The 3-5 revised standards convey a unified vision of mathematics, establish connections among the major areas of study, and show a meaningful progression of content across the grades.

Strongly Agree Agree Disagree Strongly Disagree

26. Clarity

The 3-5 revised standards are clear and concise.

Strongly AgreeAgreeDisagreeStrongly DisagreeComments: (i.e. Where do you see more clarity? Where is additional clarity needed?)

27. Measurability

The 3-5 revised standards are measurable, observable, or verifiable in some way.Strongly AgreeAgreeDisagreeStrongly Disagree

Comments: (i.e. To what degree are the revised standards measurable? Identify the standard(s) that are not measurable.)

6 – 8 Standards Review:

The next three questions address specific content changes for your feedback.

- 28. *(**Number System**) Adding and subtracting integers, from -20 to 20, using models was added into 6th grade to focus on conceptual development and to allow 7th grade to focus on rational numbers. Will this address the needs of students?
 - Meets the needs of students
 - Comes close to meeting the needs of students
 - Does not meet the needs of students

Comments:

29. *(**Geometry**) Cross sections were removed from 7th grade because there are no connections to other standards or concepts within the middle grades standards, and this concept does not appear in the high school standards until NC Math 3. What is your professional opinion regarding this decision?

Comments:

30. *(Statistics and Probability) MAD is an important concept in developing conceptual understanding of variability and asking statistical questions; therefore, it was left in middle school. What is your professional opinion about this decision? If possible, please provide supporting resources or research. Comments:

* An answer is required.

Please reference the middle school overview for a summary of the major changes at each grade level. For each domain, provide comments about the content of the standards. *Please reference specific standard(s) when appropriate.*

31. Ratios & Proportional Relationships and Functions

What is your professional opinion about the content in the revised standards for this domain?

32. The Number System

What is your professional opinion about the content in the revised standards for this domain?

33. Expressions & Equations

What is your professional opinion about the content in the revised standards for this domain?

34. Geometry

What is your professional opinion about the content in the revised standards for this domain?

35. Statistics & Probability

What is your professional opinion about the content in the revised standards for this domain?

6 – 8 Standards Review (continued):

The Data Review Committee and Writing Teams paid close attention to the Academic Standards Review Commission's (ASRC) recommendations. Use the scale to indicate if the DRAFT mathematics standards meet the given criteria. *Please reference specific standards in the comments when appropriate.*

36. Rigor

The 6-8 revised standards cover conceptual understanding, procedural fluency, and mathematical reasoning.

- \circ $\;$ The standards place too much focus on conceptual understanding.
- \circ $\;$ The standards are balanced between concepts and procedures.
- \circ $\,$ The standards place too much focus on procedural fluency.

Comments: (i.e. Where do you see rigor? Where is more rigor needed?)

37. Coherence

The 6-8 revised standards convey a unified vision of mathematics, establish connections amongthe major areas of study, and show a meaningful progression of content within a grade level.Strongly AgreeAgreeDisagreeStrongly DisagreeComments:

38. Coherence

The 6-8 revised standards convey a unified vision of mathematics, establish connections among
the major areas of study, and show a meaningful progression of content **across** a grade level.
Strongly AgreeAgreeDisagreeStrongly DisagreeComments:

39. Clarity

The 6-8 revised standards are clear and concise.

Strongly AgreeAgreeDisagreeStrongly DisagreeComments: (i.e. Where do you see more clarity? Where is additional clarity needed?)

40. Measurability

The 6-8 revised standards are measurable, observable, or verifiable in some way.Strongly AgreeAgreeDisagreeStrongly DisagreeComments: (i.e. To what degree are the revised standards measurable? Identify the standard(s) that are not measurable)