

The background of the slide is a composite image. The top left portion shows two yellow school buses, with the one in front labeled 'SCHOOL BUS' and the number '32'. The bottom left portion shows a classroom with blue walls, decorated with colorful balloons and framed pictures. Several small, square tables with chairs are arranged in the room.

Kentucky Academic Standards for Mathematics

Interim Joint Committee on Education
October 6, 2026

Statutory Basis

KRS 158.6453(2)

- Requires the Kentucky Department of Education to implement a process for reviewing Kentucky's academic standards every six years.

House Bill 162 (2024), *Kentucky Numeracy Counts Act*

- Establishes that mathematics proficiency is essential for all Kentucky students to achieve the academic goals established in KRS 158.6451.
- It is Kentucky's goal that all children have the skills necessary to demonstrate procedural skill and fluency, building from conceptual understanding to application, in order to solve real-world problems.

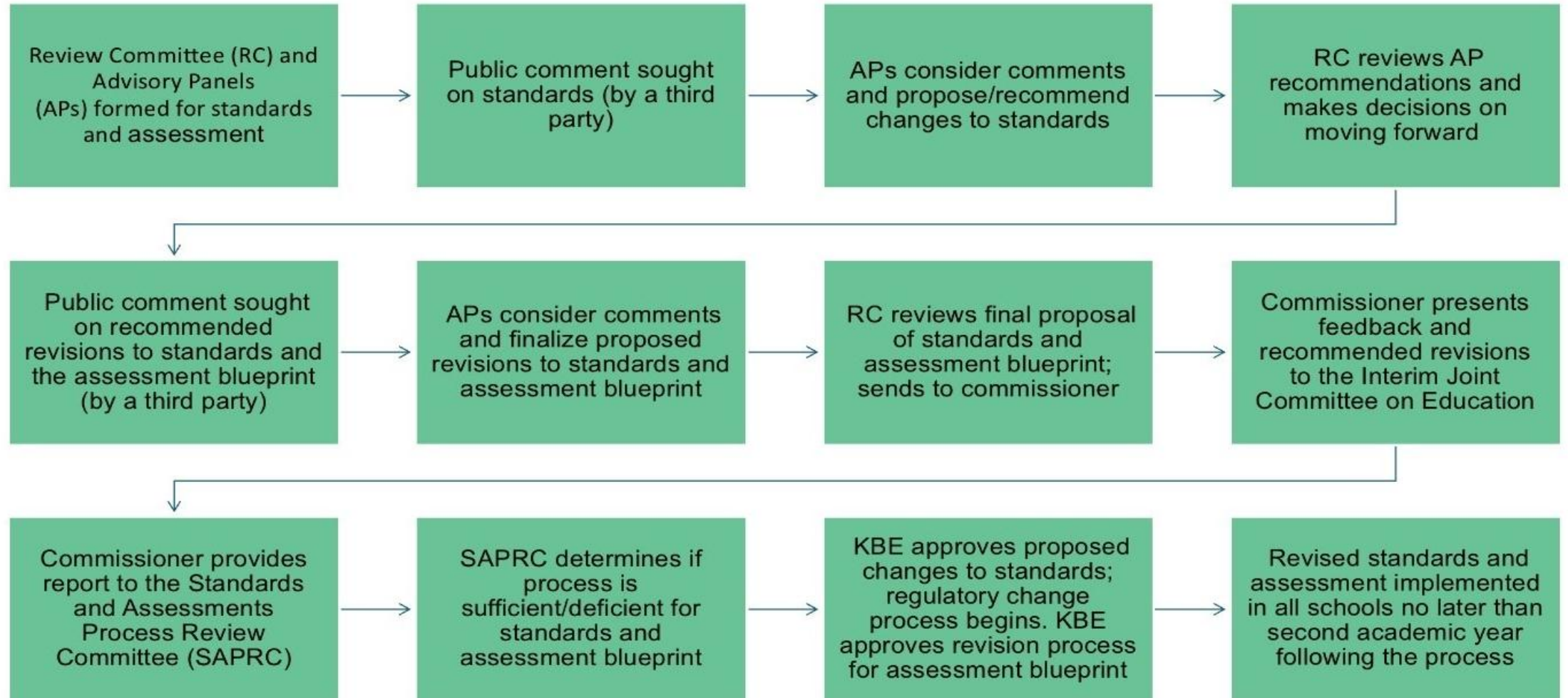
KRS 158.6453(2)(b)

Review of Academic Standards

“The revision to the content standards shall:

1. Focus on critical knowledge, skills and capacities needed for success in the global economy;
2. Result in fewer but more in-depth standards to facilitate mastery learning;
3. Communicate expectations more clearly and concisely to teachers, parents, students and citizens;
4. Be based on evidence-based research;
5. Consider international benchmarks; and
6. Ensure that the standards are aligned from elementary to high school to postsecondary education so that students can be successful at each education level.”

Standards and Assessment Review Process



Standards Process Review Timeline

- **August 2025:** Call for participation on standards committee opened
- **August 2025 - October 2025:** Current mathematics standards opened for initial public comment/feedback
- **November 2025:** Advisory Panels (APs) and Review Committee (RC) met to review public feedback and recommend potential changes to standards
- **January 2026 - February 2026:** Recommended changes to mathematics standards and Mathematics Assessment Blueprint released for public comment for 30 days
- **April 2026:** APs and RC met to review public feedback and prepare recommendations to the draft standards and assessment blueprint
- **June 2026:** APs and RC reconvened to review final recommendations and document formatting
- **October 2026:** Recommendations and public feedback presented to the Interim Joint Committee on Education

Standards Writers' Vision

- The writing team envisioned Kentucky students developing strong mathematical understanding through vibrant learning experiences grounded in conceptual understanding and procedural fluency.
- The standards present a clear and developmentally appropriate progression of mathematical learning across grade levels while allowing for individualized and flexible pathways that prepare students for life after graduation.
- As the foundation of high-quality instruction, the standards equip students with the confidence, knowledge and problem-solving skills necessary to make well-informed decisions, engage with society and contribute to Kentucky's future.

Initial Public Comment Period: Feedback

- Initial public comment period allowed respondents to provide feedback on the current *Kentucky Academic Standards (KAS) for Mathematics*
- Over 350 responses received during the initial public comment period from a variety of stakeholder groups, including:
 - Teachers and administrators
 - Parents and guardians
 - Students
 - Business and community partners
 - Postsecondary education representatives
- For each standard, respondents were asked to select “keep as-is” or “revise”
 - 98% of grades K-5 standards approved “as-is”
 - 99% of grades 6-8 standards approved “as-is”
 - 97% of high school standards approved “as-is”
- For each standard, respondents selected to “revise,” they were prompted to give their reasoning, suggestions and/or comments
- After receiving initial public feedback, standards flagged for review were considered for revision by the APs and RC

General Revision Highlights

- **Grade-level overviews** for K-8 were updated to better summarize and communicate the key grade-level content within each strand of the standards.
- **Mathematics pathways coding framework** was created that identifies how standards contribute to graduation requirements, personalized coursework, postsecondary readiness and advanced study.
- **Conceptual category overviews** at the high school level were expanded to better align with the structure and function of the K-8 overviews. These overviews now include an explanation of the purpose of each conceptual category, a summary of the key content aligned to the type of standard (Foundational, Delta, Plus, or Plus Plus), and definitions of each type of standard in the new coding scheme.
- **Coherence statements** were added to the high school foundational standards to support transition from grades 6-8 to high school.
- **Document design colors, logos, and fonts** were updated to support usability and navigation of the document.
- **Visuals and graphics** were refined in clarifications throughout the document to support deeper clarity in the intent of standards.

Mathematics Pathways Coding Framework

The high school standards include a coding framework that identifies how standards contribute to graduation requirements, personalized learning, postsecondary readiness and advanced coursework.

- **Foundational (■) Standards:** Content for Algebra I and Geometry or equivalent courses
- **Delta (Δ) Standards:** Recommended content for third and fourth-year personalized math credits
- **Plus (+) Standards:** Recommended content for advanced geometry courses that extends beyond required foundational concepts
- **Plus Plus (++) Standards:** Standards for calculus and beyond
- **Modeling Standards (★):** Specific high school standards well-suited for application and modeling

Second Public Comment Period

- The second public comment period allowed respondents to provide feedback on the revised *Kentucky Academic Standards (KAS) for Mathematics*.
- 426 respondents commented during the second public comment period from a variety of stakeholder groups, including:
 - Teachers and administrators;
 - Parents and guardians;
 - Students;
 - Business and community partners; and
 - Postsecondary education representatives.
- 99% of the standards were approved “as is.”
- The APs and RC reconvened to consider the remaining 1% of standards flagged for review and provided revisions, as needed, to complete the current draft *KAS for Mathematics*.

Annotated Standards Chart

Architecture of the Standards

Domain

Cluster
Heading

Standards for
Mathematical
Content

Attending to the
Standards for
Mathematical
Practice (SMP)

Counting and Cardinality

Standards for Mathematical Practice

SMP.1 . Make sense of problems and persevere in solving them.	SMP.5 . Use appropriate tools strategically.
SMP.2 . Reason abstractly and quantitatively.	SMP.6 . Attend to precision.
SMP.3 . Construct viable arguments and critique the reasoning of others.	SMP.7 . Look for and make use of structure.
SMP.4 . Model with mathematics.	SMP.8 . Look for and express regularity in repeated reasoning.

Cluster: Compare numbers.

Standards	Clarifications
KY.K.CC.6 Identify whether the number of objects in one group is greater than, less than or equal to the number of objects in another group. SMP.1, SMP.3, SMP.6	Compare two collections (each containing up to 10 objects) to determine whether one collection is greater than, less than or equal to the other. Students use matching strategies (pairing items from the collections) or counting strategies (counting one collection and then the other). Note: Students do not need to use the relation symbols greater than (>), less than (<) and equal to (=) to compare groups of objects. Coherence KY.K.CC.6 → KY.K.MD.3
KY.K.CC.7 Compare two numbers between 1 and 10 presented as written numerals. SMP.2	When presented with two numerals (between 1 and 10), students determine which numeral is greater than, less than or equal to the other. Students express some mathematical reasoning regarding their determination (5 is larger than 3 because it has two more). Note: Students do not need to use the relation symbols greater than (>), less than (<) and equal to (=) to compare numbers between 1 and 10. Coherence KY.K.CC.7 → KY.1.NBT.3

Attending to the Standards for Mathematical Practice

Students know different strategies for comparing groups and choose a strategy such as counting, matching and pairing to compare two groups (SMP.1). For example, when comparing a collection of red counters to a collection of blue counters, students count each group finding which has the greater number, pair off blues and reds to see which group has extras or make two rows and line them up to see which is longer (SMP.2). Once a determination has been made, students articulate their ideas using precise mathematical language such as "greater than," "less than" and "equal to" (SMP.6, SMP.3). When comparing two numerals, students move flexibly between symbols and their corresponding quantities, using objects or situations to help them reason about the relative size of each quantity (SMP.2).

Standards for
Mathematical
Practice (SMP)

Coherence and
Vertical Alignment

Clarifications

Questions?

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