

The background of the slide is a composite image. The top-left portion shows a line of yellow school buses with "SCHOOL BUS" written on their fronts. The bottom-left portion shows a classroom with blue walls, several desks and chairs, and colorful balloons. A large white diagonal shape cuts across the image from the top-left to the bottom-right.

# **“Kentucky Academic Standards for Science”**

**New Regulation 704 KAR 8:120**

**Kentucky Board of Education**  
**December 6, 2022**

# KRS 158.6453

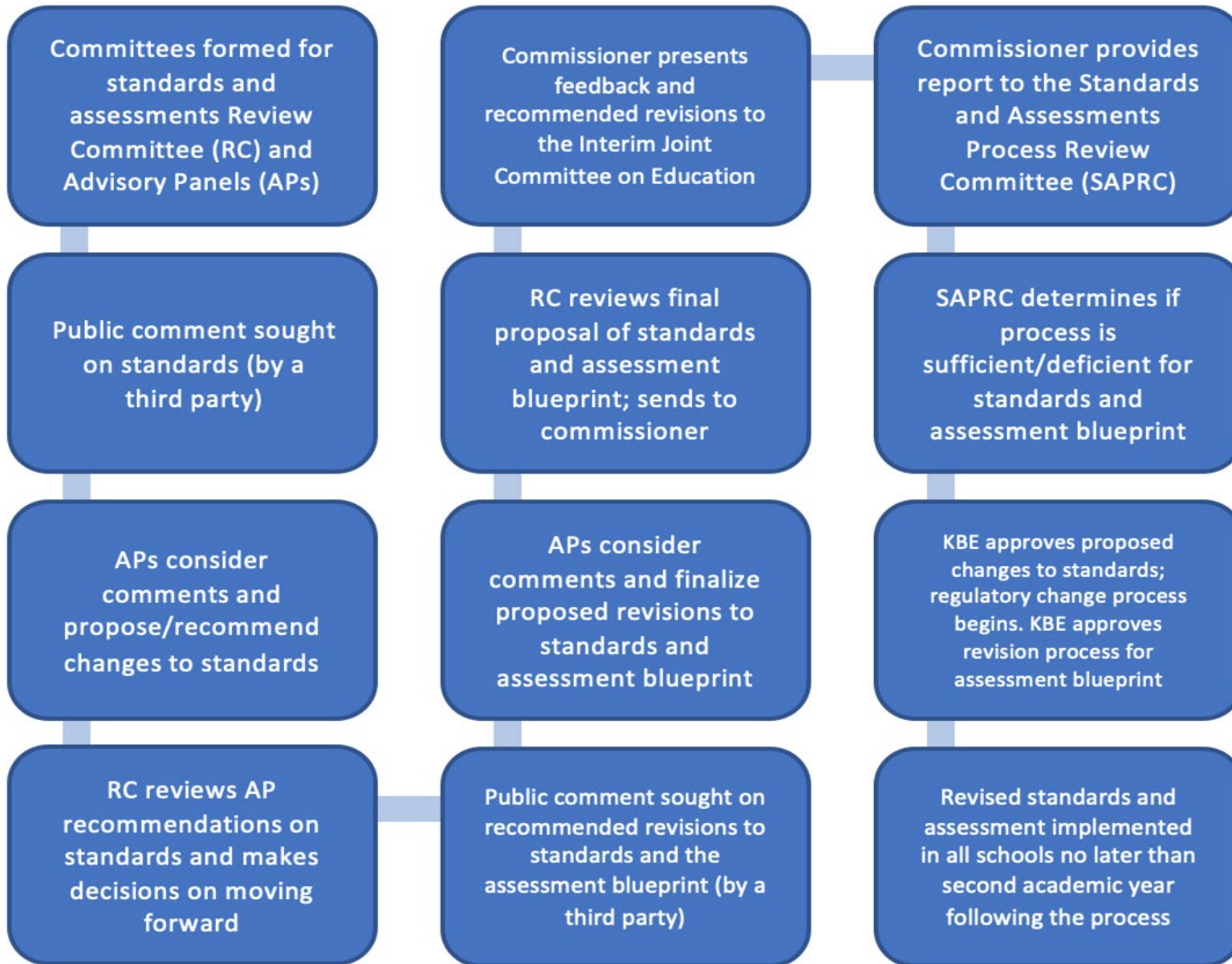
## Review of Academic Standards

*The standards revision to the content standards shall:*

- Focus on critical knowledge, skills and capacities needed for success in the global economy;
- Result in fewer but more in-depth standards to facilitate mastery learning;
- Communicate expectations more clearly and concisely to teachers, parents, students and citizens;
- Be based on evidence-based research;
- Consider international benchmarks; and
- 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 Assessments Review Process

To occur every six years





# Standards and Regulation

- **704 KAR 8:120** “Kentucky Academic Standards for Science”
  - This new administrative regulation will adopt into law the “Kentucky Academic Standards (KAS) for Science.”
- **704 KAR 3:303** “Required Academic Standards”
  - This administrative regulation will be amended due to the transfer and removal of the science standards from 704 KAR 3:303 to 704 KAR 8:120.

# “KAS for Science” and Assessment Alignment Timeline

- **October 2020:** Call for participation on standards committee opened
- **January 2021 - February 2021:** Current science standards open for public comment/feedback
- **April 2021:** Initial Science RC/AP Kickoff meetings
- **June 2021:** 2nd Science RC/AP meeting working on vision statement
- **July 2021:** 3rd Science RC/AP meeting finalize vision statement
- **July 2021- January 2022:** AP met 11 times and RC met 6 times to review public feedback and make recommendations to the draft standards
- **February 2022 - June 2022:** Subcommittees met 17 times to provide justifications, review progressions and coherence, and make recommendations to the layout
- **June 2022:** RC and AP recommend release of draft for public comment
- **June 2022 - July 2022:** Science Standards and Science Assessment Blueprint released for public comment
- **August 2022:** AP and RC meet to review public feedback and finalize their recommendations to draft standards
- **September 2022:** AP and RC meet to review public feedback and recommend potential changes to assessment blueprint
- **October 2022:** Commissioner presents recommendations and public feedback to the Interim Joint Committee on Education

# Guiding Principles

Determined by Review Committee (RC)  
and Advisory Panels (APs)

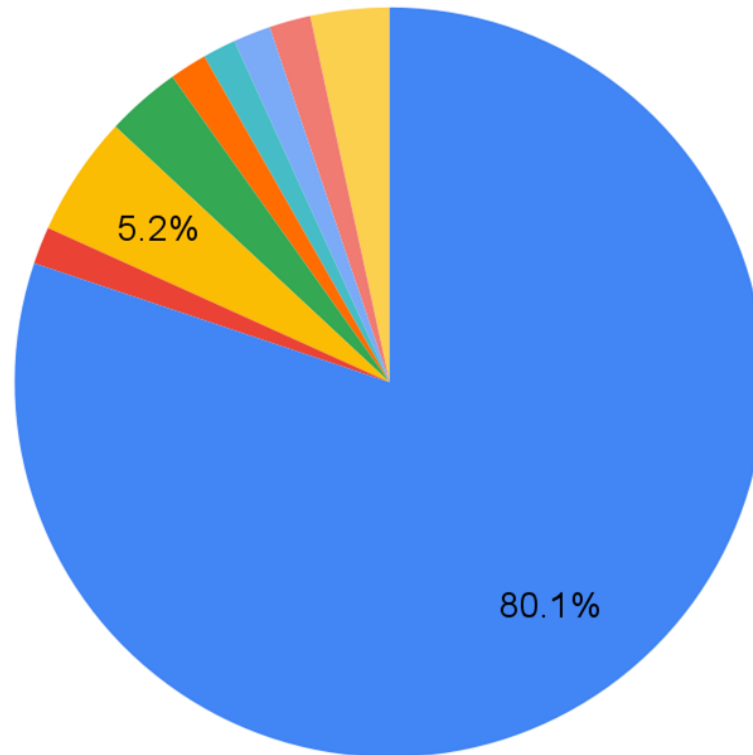
- Standards should be limited in number and be written in clear and precise language.
- K–12 alignment guides evidence-based, developmentally appropriate learning that progresses logically across grade levels.
- Using observations and evidence, students make sense of the natural world.
- Students need sustained opportunities to work with and develop the underlying ideas and to appreciate those ideas' interconnections over a period of years rather than weeks or months.
- Teachers at all grade levels have ongoing access to high quality science professional learning and resources to help students make sense of the natural world.

# Initial Public Comment Period

## Survey Respondent Roles

### Participant Roles

- Teacher
- Retired Teacher
- Administrator
- Parent or Guardian
- Higher Education Faculty
- Business or Community
- Student
- State Education Agency
- Other



Role	Number
Teacher	448
Retired Teacher	9
Administrator	29
Parent or Guardian	16
Higher Education Faculty	9
Business or Community	8
State Education Agency	5
Student	10
Other	19

# Public Comment Period

## Standard Ratings

- A total of 553 respondents completed the survey.
- Not all respondents commented on all performance expectations. Most had no suggested changes to the performance expectations.
- Of the 553 respondents, 348 had no proposed changes or comments at all.
- Among those who provided comments, they did so on average for a little over five performance expectations.

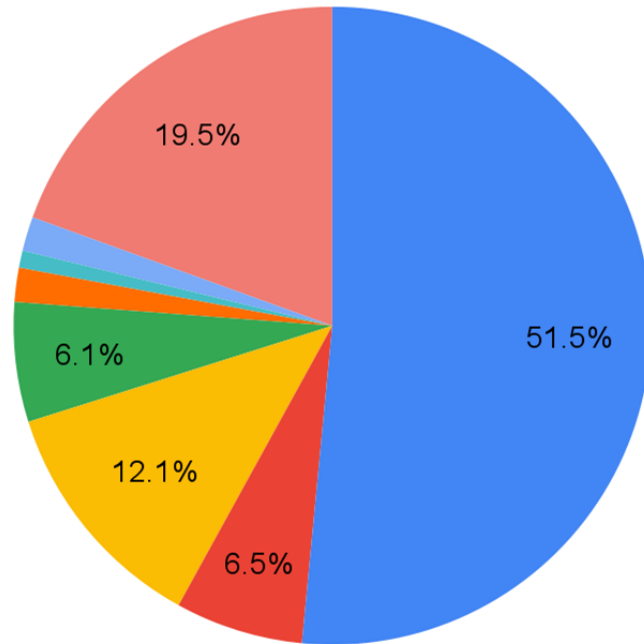


# Draft Public Comment Period

## Survey Respondent Roles

### Participant Roles

- Teacher
- Informal Educator
- Administrator
- Parent or Guardian
- Higher Education Faculty
- Business or Community
- Student
- No Response

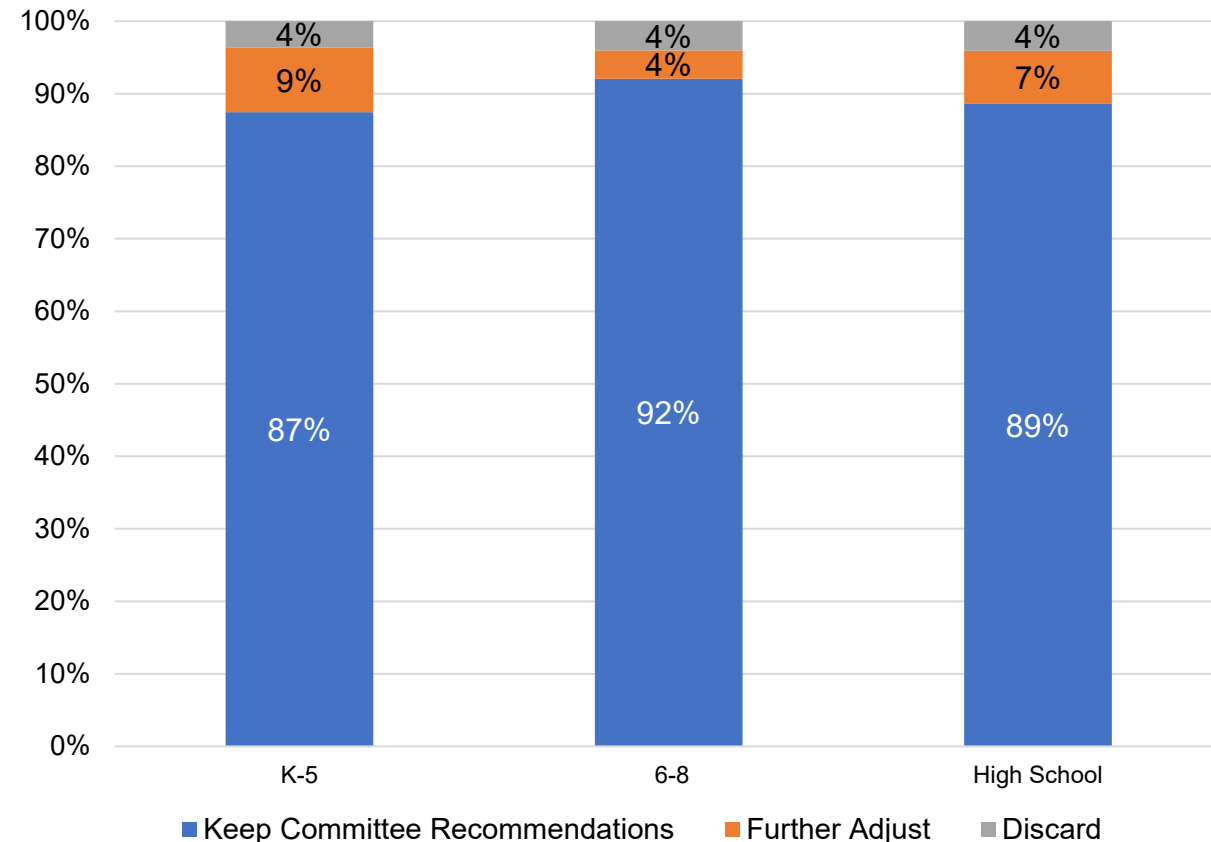


Role	Number
Teacher	119
Informal Educator	15
Administrator	28
Parent or Guardian	14
Higher Education Faculty	4
Business or Community	2
Student	4
No Response	45

# Public Comment Period Standard Ratings

- K-5 received 820 ratings across 78 performance expectations; 87% requested to keep the committee's recommendations.
- Middle School had 793 ratings across 59 performance expectations; 92% requested to keep the committee's recommendations.
- High School had 856 ratings across 71 performance expectations; 89% requested to keep the committee's recommendations.
- 95 individuals provided feedback on the organization and layout. 83% of those agreed or strongly agreed that the layout was easier to identify the standards and meaning.

Summary of Public Feedback



# Additional Feedback

**Seven focus groups** (summer/fall of 2022) consisting of:

- Higher education science instructors
- Higher education teacher prep
- Parents
- Organizations supporting implementation
- Secondary teachers
- Administrators
- Students

# Draft “Kentucky Academic Standards for Science” Highlights

- Redesign of the layout to include foundation box
- Revision of clarification statement and assessment boundary
- Grade K-8 are grade level specific standards; high school is banded 9-12
- Standards are organized into four domains:
  - Physical science
  - Life science
  - Earth and space science
  - Engineering, Technology and Application of Science



# Draft “Kentucky Academic Standards for Science”

**Performance Expectation (PE):** The performance students demonstrate to show mastery



**K-PS2-1.** Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.

**Clarification Statement:** Examples of pushes or pulls could include a string attached to an object being pulled, swings on a playground, a person pushing an object, a person stopping a rolling ball, and two objects colliding and pushing on each other.

**Assessment Boundary:** Assessment is limited to different relative strengths or different directions, but not both at the same time. Assessment does not include non-contact pushes or pulls such as those produced by magnets.

**Clarification Statement:** Provide examples or additional information



**Assessment Boundary:** States the limit of assessment for large-scale assessment



**Foundation Boxes:** Provides further information about each dimension that was combined to develop the PE.



Science and Engineering Practice	Disciplinary Core Idea	Crosscutting Concepts
<p><b>Planning and Carrying Out Investigations</b></p> <p>With guidance, plan and conduct an investigation in collaboration with peers.</p>	<p><b>PS2.A: Forces and Motion</b></p> <p>Pushes and pulls can have different strengths and directions. Pushing or pulling on an object can change the speed or direction of its motion and can start or stop it.</p> <p><b>PS2.B: Types of Interactions</b></p> <p>When objects touch or collide, they push on one another and can change motion.</p> <p><b>PS3.C: Relationship Between Energy and Forces</b></p> <p>A bigger push or pull makes things speed up or slow down more quickly.</p>	<p><b>Cause and Effect</b></p> <p>Simple tests can be designed to gather evidence to support or refute student ideas about causes.</p>

# “Kentucky Academic Standards for Science”

## Questions?

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**“Kentucky Academic Standards for Social Studies”  
Amended Regulation  
704 KAR 8:060**

# KRS 158.196

Per (3)(a), the Kentucky Department of Education shall incorporate fundamental American documents and speeches into the grade-level appropriate middle and high school social studies academic standards and align corresponding assessments by July 1, 2023.

(b) The revision shall not delay or otherwise impact the existing schedule as set forth in KRS 158.6453(2).



# Fundamental Documents and Speeches

- The Mayflower Compact
- The Declaration of Independence
- The Constitution of the United States
- The Federalist No. 1 (Alexander Hamilton)
- The Federalist Nos. 10 and 51 (James Madison)
- The June 8, 1789, speech on amendments to the Constitution of the United States by James Madison
- The first (10) amendments to the Constitution of the United States, also known as the Bill of Rights
- The 1796 Farewell Address by George Washington
- The United States Supreme Court opinion in *Marbury v. Madison*, 5 U.S. 137 (1803)
- The Monroe Doctrine by James Monroe
- What to the Slave is the Fourth of July? speech by Frederick Douglass
- The United States Supreme Court opinion in *Dred Scott v. Sandford*, 60 U.S. 393 (1857)
- Final Emancipation Proclamation by Abraham Lincoln
- The Gettysburg Address by Abraham Lincoln
- Declaration of Rights of the Women of the United States by Susan B. Anthony, Matilda Joslyn Gage, and Elizabeth Cady Stanton
- The September 18, 1895, Atlanta Exposition Address by Booker T. Washington
- *Of Booker T. Washington and Others* by W.E.B. Du Bois
- The United States Supreme Court opinion in *Plessy v. Ferguson*, 163 U.S. 537 (1896)
- The August 31, 1910, New Nationalism speech by Theodore Roosevelt
- The January 11, 1944, State of the Union Address by Franklin D. Roosevelt
- The United States Supreme Court opinions in *Brown v. Board of Education of Topeka*, 347 U.S. 483 (1954) and *Brown v. Board of Education of Topeka*, 349 U.S. 294 (1955)
- Letter from Birmingham Jail by Martin Luther King, Jr.
- The August 28, 1963, I Have a Dream speech by Martin Luther King, Jr.
- *A Time for Choosing* by Ronald Reagan

# KRS 158.196

## *Teaching American Principles Act*

### Implementation Timeline

<b>April 2022</b>	<i>Senate Bill 1 (2022) signed into law.</i>
<b>June 2022</b>	<i>Committees reconvened for standards and assessments Review Committee (RC) and Advisory Panels (APs).</i>
<b>July 2022</b>	<i>APs consider requirements of KRS 158.196 and propose/recommend changes to standards. RC reviews APs recommendations on standards and makes decisions on moving forward.</i>
<b>September 2022</b>	<i>Public comment sought on recommended revisions to standards and the assessment blueprint (by a third party).</i>
<b>October 2022</b>	<i>APs respond to comments and finalize proposed revisions to standards. RC reviews and approves the final proposal of standards and sends it to the commissioner.</i>
<b>November 2022</b>	<i>The commissioner presents feedback and recommended revisions to the Interim Joint Committee on Education.</i>
<b>December 2022</b>	<i>The commissioner provides a report to Standards and Assessment Process Review Committee (SAPRC). SAPRC determines whether the process is sufficient/deficient for standards.</i>
<b>December 2022</b>	<i>KBE reviews proposed changes to standards; if approved, regulatory change process begins.</i>
<b>August 2023</b>	<i>Revised standards are implemented in all schools.</i>

# Standards and Clarification Statements

## History Disciplinary Strand

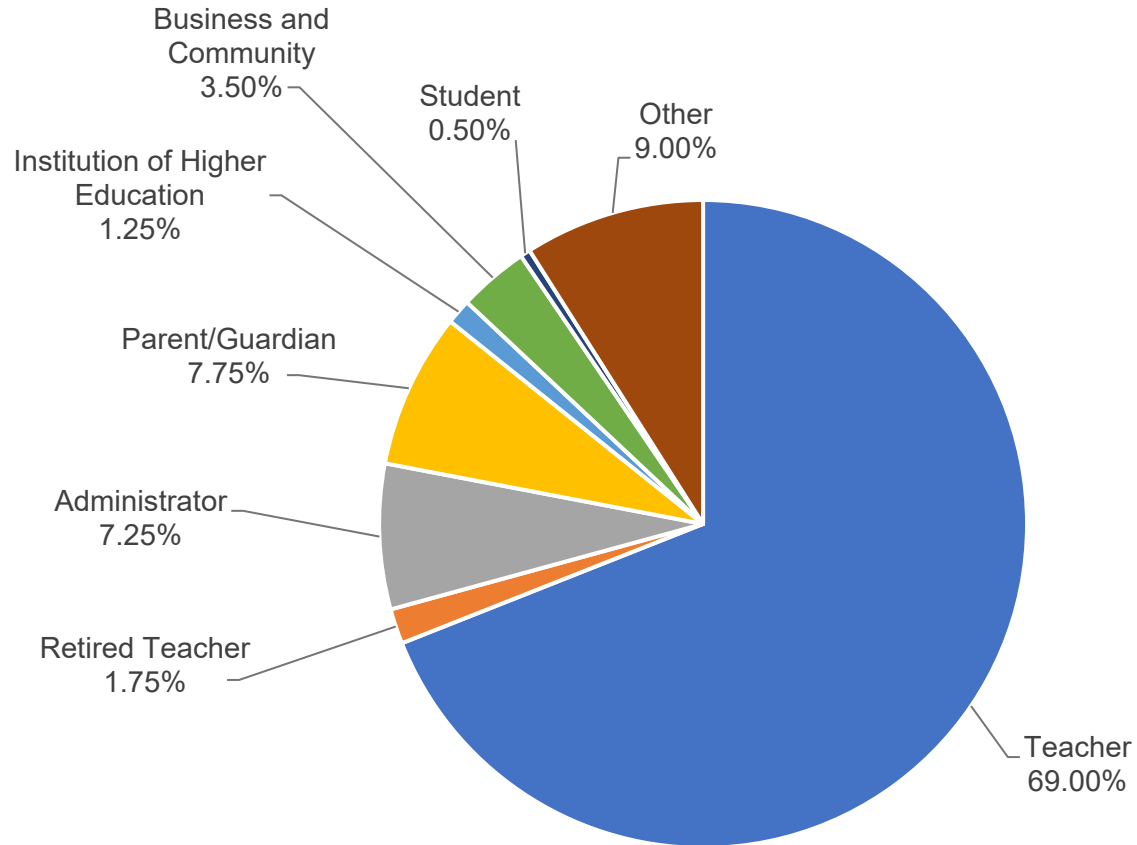
Concepts and Practices	Standard	Disciplinary Clarifications
H: Change and Continuity	5.H.CH.1 Describe the impact of founding documents on the development of the United States.	The founding documents, including, but not limited to, the Declaration of Independence, U.S. Constitution, and Bill of Rights, established the United States government and presented the philosophical, traditional, and political foundations on which the nation was built. New political ideologies influenced the democratic principles that guided the founding of the nation and formation of the government. Certain groups, including women, African Americans, and American Indians, did not receive equal rights or representation. Protections for slavery were embedded in the founding documents.

# Public Comment Highlights



# Public Comment Period

## Survey Details and Respondent Roles

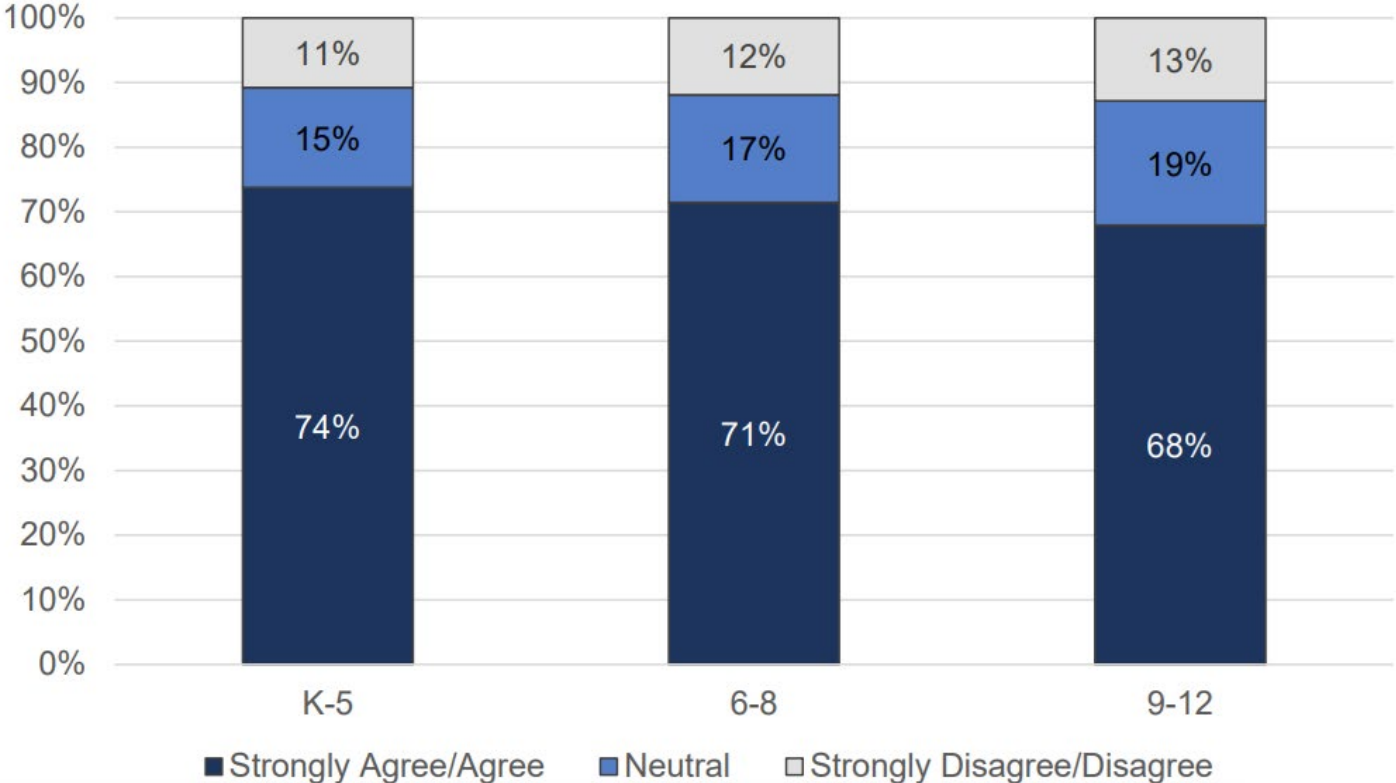


**400 Respondents Total**  
 (respondents represent 59% of all KY counties)

Role	Responses
Teacher	276
Retired Teacher	7
Administrator	29
Parent/Guardian	31
Institution of Higher Education	5
Business and Community	14
Student	2
Other (Please specify.)	36
<b>Total</b>	<b>400</b>

# Summary of Public Feedback on Adjustments to Standards

Responses to Proposed Adjustments by Grade Band



# Review Committee (RC) and Advisory Panels (APs) Response to Public Comments

# KAS K–5 Standard

Concept and Practice	Standard	Disciplinary Clarifications
H: Change and Continuity	5.H.CH.1 Describe the impact of fundamental documents on the development of the United States.	The fundamental documents, including, but not limited to, the Declaration of Independence, U.S. Constitution, and Bill of Rights, established the United States government and presented the philosophical, traditional, and political foundations on which the nation was built. New political ideologies influenced the democratic principles that guided the founding of the nation and formation of the government. Certain groups, including women, African Americans, and American Indians, did not receive equal rights or representation. Protections for slavery were embedded in the founding documents.



# NEW 8th Grade Standard

**8.H.CH.6 Analyze the impact of fundamental documents and speeches on the development of the United States from 1600 to 1877 that shall include but are not limited to the following:**

- The Mayflower Compact
- The Declaration of Independence
- The Constitution of the United States
- The Federalist No. 1 (Alexander Hamilton)
- The Federalist Nos. 10 and 51 (James Madison)
- The June 8, 1789, speech on amendments to the Constitution of the United States by James Madison
- The first 10 amendments to the Constitution of the United States, also known as the Bill of Rights
- The 1796 Farewell Address by George Washington
- The United States Supreme Court opinion in Marbury v. Madison, 5 U.S. 137 (1803)
- The Monroe Doctrine by James Monroe
- What to the Slave is the Fourth of July? speech by Frederick Douglass
- The United States Supreme Court opinion in Dred Scott v. Sanford, 60 U.S. 393 (1857)
- Final Emancipation Proclamation by Abraham Lincoln
- The Gettysburg Address by Abraham Lincoln
- Declaration of Rights of the Women of the United States by Susan B. Anthony, Matilda Joslyn Gage, and Elizabeth Cady Stanton

# NEW High School Standard

**HS.UH.CH.7 Evaluate the impact of fundamental documents and speeches on the development of the United States from 1877 to present that shall include but are not limited to the following:**

- The September 18, 1895, Atlanta Exposition Address by Booker T. Washington
- *Of Booker T. Washington and Others* by W.E.B. Du Bois
- The United States Supreme Court opinion in Plessy v. Ferguson, 163 U.S. 537 (1896)
- The August 31, 1910, New Nationalism speech by Theodore Roosevelt
- The January 11, 1944, State of the Union Address by Franklin D. Roosevelt
- The United States Supreme Court opinions in Brown v. Board of Education of Topeka, 347 U.S. 483 (1954) and Brown v. Board of Education of Topeka, 349 U.S. 294 (1955)
- Letter from Birmingham Jail by Martin Luther King, Jr.
- The August 28, 1963, I Have a Dream speech by Martin Luther King, Jr.
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# Draft “Kentucky Academic Standards for Social Studies”

## Questions?