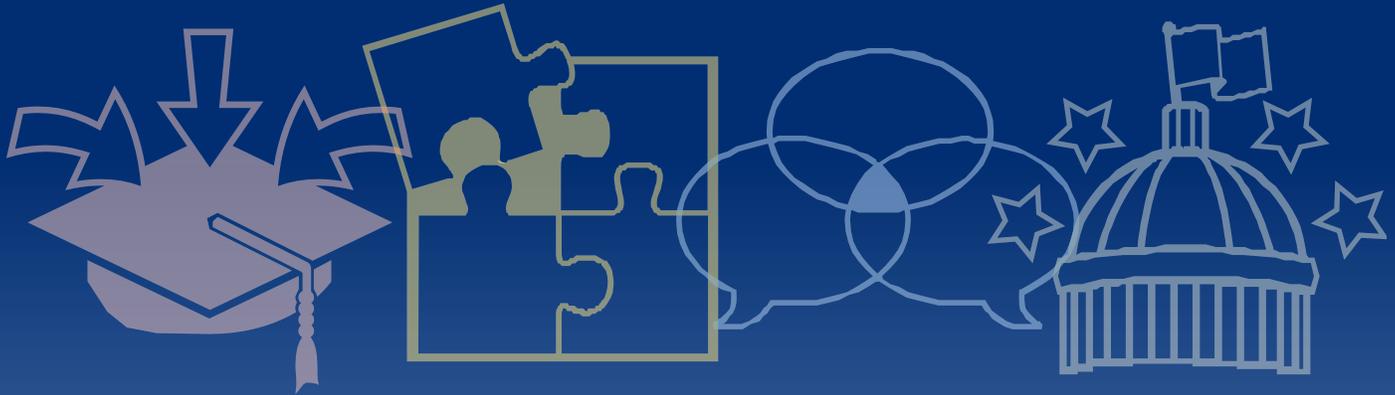JOHNS HOPKINS
SCHOOL of EDUCATION | Institute for Education Policy

Social Studies Knowledge Map™

TCi™

A unique analytic resource enabling policymakers, school leaders, and parents to better understand the strengths and weaknesses of the TCI Grades K-5 social studies curriculum.

Fall 2021

The Johns Hopkins Institute for Education Policy designed the Knowledge Map™ as a unique analysis of the knowledge build provided by different curricula. Why? The academic achievement gap between low- and high-income students is, in large part, a knowledge gap. Research indicates that many pluralistic democracies require all schools to teach a standard body of knowledge;[i] a comprehensive, content-rich curriculum is a signature feature of high-performing systems.[ii]

Despite the research record, a majority of the United States' curricula sideline the acquisition of deep content, and instead, focus on the process of honing abstract skills. Furthermore, we know from the political science literature that students need to practice the skill of civil disagreement[iii] - a routine that is unfortunately rare in the United States' classrooms.[iv] A well-designed social studies curriculum can encourage both knowledge building and the habit of civil disagreement.

The Institute's Social Studies Knowledge Map™ allows us to analyze a K-12 social studies curriculum in terms of the knowledge it helps students learn and apply. We conduct this analysis by "mapping" the knowledge domains that are implicit in the selection of the sources and texts that are discussed. This mapping enables policymakers to see not only the domains of knowledge that are opened up in the curriculum – and others that are missed – but also to what degree, and over what grade span. We also assess whether a given unit includes more than one perspective, and whether the teacher-facing materials encourage deliberation and disagreement. This is a one-of-a-kind instrument.

METHODOLOGY

- The Institute maps all items in the evaluated grades on three initial dimensions and at different grain sizes of coverage. For example, a letter by abolitionist Thomas Garrett about Harriet Tubman would be categorized like so:
  - *Domain*: U.S. History to 1865
  - *Topic*: Slavery/Abolition
  - *Subtopics*: Harriet Tubman; Underground Railroad

- The Institute evaluates the quality of every student-facing resource both individually and in the broader context of the unit.

- The Institute constructs a vertical mapping of the knowledge domains at each level, first by grade and then across multiple grades.

- The Institute creates a coverage report that visually illustrates the depth of emphasis a given domain receives across the grades.

- The Institute evaluates each unit for its presentation of distinctive viewpoints and for the presence of teacher-facing instructions that support a deliberative classroom (referred to as 'Open Classroom Climate').

- [View a sample report of a de-identified district's K-12 curriculum](#).

PROJECT DESCRIPTION

The Institute reviewed the materials that comprise the TCI K-5 social studies curriculum used by the Sumners Foundation. Each resource, both text and non-text, was evaluated individually, in the context of its unit, and as a part of the cumulative curriculum's knowledge reinforcement capabilities.

Insights discussed throughout this report derive from several evaluations, including heat maps, coherence and quality maps, and evaluations of grade-specific metrics such as the presence of multiple viewpoints and the encouragement of deliberation.

Strengths of Curriculum

As a whole, the TCI curriculum boasts strong text quality and topical coverage, particularly in the early grades. The Institute's heat map analysis reveals the presence of considerable texts in typical elementary social studies domains, covering topics such as civics and social-emotional studies. Though less coverage appears in more specialized domains such as regional history, this potentially reflects the

scope of an early social studies curriculum. Notable absences should be measured against the system's instructional goals, but the curriculum is generally well-rounded and thorough in its scope.

Text quality also serves as a curricular strength; Grades K and 1 achieved near-perfect overall quality scores, and contained several units each with perfect quality scores. All units fell within the Institute's range for either high or acceptable quality, and the two grades that achieved acceptable scores came close to the threshold for high quality. Consistency in unit quality scores was generally good, though the significant difference in quality scores in Grades 3 and 4 should be evaluated to ensure an even standard in instruction at those grade levels.

The Institute's coherence analysis studies the topical links between a designated anchor text and the other materials within a unit in order to determine if the unit successfully builds upon its main ideas. Unit coherence presented as a weaker point in this curriculum; even in high-quality units, links between main texts and their supporting materials proved more sporadic. Though several units throughout the curriculum provide stronger examples of coherence, the majority scored either moderately or weakly on this metric.

Unit-wide evaluations revealed that the curriculum provides materials to encourage discussion and deliberation in the classroom. TCI scored strongly on the Institute's measure of open classroom climate, and adequately on the inclusion of multiple perspectives. Though higher grade levels achieved lower scores on both metrics than their counterparts, the average for the entire curriculum indicates that there is a good basis for teaching critical thinking in elementary students within this system.

INSTITUTE RECOMMENDATIONS

Overall, TCI presents high-quality instructional materials that engage students in meaningful and interactive activities and create opportunities for lively classroom discussions. TCI offers students strong knowledge foundations in Government & Civics, Economics, and Geography – essential subjects that are sometimes neglected in the elementary grades. The Knowledge Map™ and Unit Coherency Map analysis highlights areas of knowledge building and assesses associated strengths and weaknesses as well as examines text quality and unit coherency. From this analysis, the Institute recommends that TCI:

- Find ways to introduce materials that build historical domains outside of American history, so that knowledge acquired early on in a student's education can be revisited with additional context.
- Consider where there may be room in the elementary curriculum to introduce concepts and content that will be explored in more depth in the secondary years such as the Law & Criminology, Media, or Philosophy.
- Improve the coherency of units, where low, by examining texts that do not support the unit's topical themes such as *No More Snakes* in Unit 8 of Grade 1, represented in Figure 26, or *Indigenous Sovereignty* in Unit 17 of Grade 4, represented in Figure 31.

The first section of the report addresses the specific findings of the heat map exercise, followed by quality and coherence findings.

TCI KNOWLEDGE/HEAT MAPS: GRADES K-5

One of the Institute's critical gateway questions addresses the level of exposure students receive to each important domain of knowledge and to the topic within those domains. Each heat map expresses the findings visually using a color-coding scheme, as shown in Figure 1 below. Lighter blue squares represent fewer knowledge-building texts, such as one or no text, while darker blue squares represent more knowledge-building texts, such as eight or more. The heat map exercise does not serve to pass judgment on a curriculum's knowledge build, as the Institute understands the importance of the system's larger context in developing coursework. Instead, the results of this exercise should be measured against the system's goals for knowledge reinforcement within the curriculum in order to gain a visual understanding for where topical coverage does and does not exist. The results for each of the twenty-one topical domains in Grades K-5 appear in the figures below.

A mere mention of a topic does not necessarily indicate exposure to that topic. The Institute tags a topic only when the text's presentation of it is robust enough for a student to convey specific facts about it. This metric is age-dependent, and takes the student's education level into account.

No Text	1 Text	2-4 Texts	5-7 Texts	8+ Texts

Figure 1. The color-coded rating scheme used in heat maps, where lighter blue indicates fewer texts and darker blue indicates more texts.

Strong Knowledge-Building Domains

The curriculum presents robust knowledge building in several domains and additional topics, shown below alphabetically when similarly rated. Strong knowledge-building domains appear in the heat maps as predominantly dark blue, indicating that many texts address topics within them (for instance, the categories of 8+ Texts or 5-7 Texts).

Four domains scored strongly for topical coverage within the TCI curriculum – Civics & Government (Figure 2), Economics (Figure 3), Family, Community & Identity (Figure 4), and Geography (Figure 5). As the graphics below indicate, these domains present significant topical coverage across all evaluated grade levels, suggesting that elementary students using this curriculum have ample opportunities to develop their understanding of related topics.

Additional knowledge domains exhibit patterns of strength in specific topics and across grade bands. One pattern appears as large numbers of texts on a particular topic across all grades. This pattern can be found within the Global Themes domain (Figure 8), which scores for moderate knowledge building overall but which presents strong coverage of the Historical Thinking/Concepts topic. A second pattern presents large numbers of texts across domain topics within an individual grade band. In this

curriculum, the Anthropology domain (Figure 6) presents this pattern; the domain also scored moderately for overall coverage, but the related graphic reveals strong coverage across the domain's topics at the Grade 4 level. Instances of these patterns reveal more specialized topical coverage within certain domains, and provides an opportunity to ensure that these specializations match the curriculum's self-determined goals.
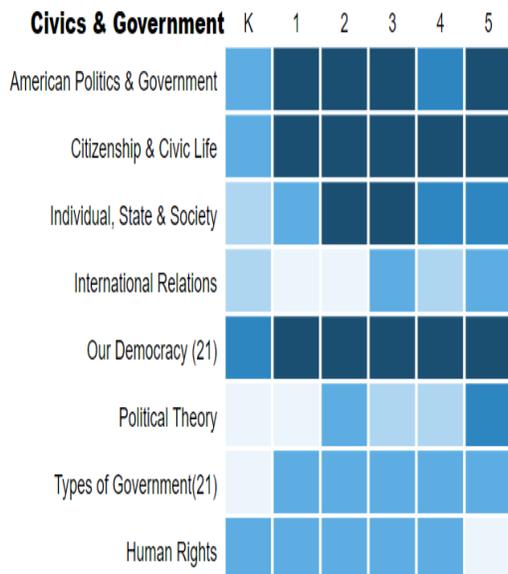

Figure 2. Heat map analysis of the *Civics & Government* domain in Grades K-5.
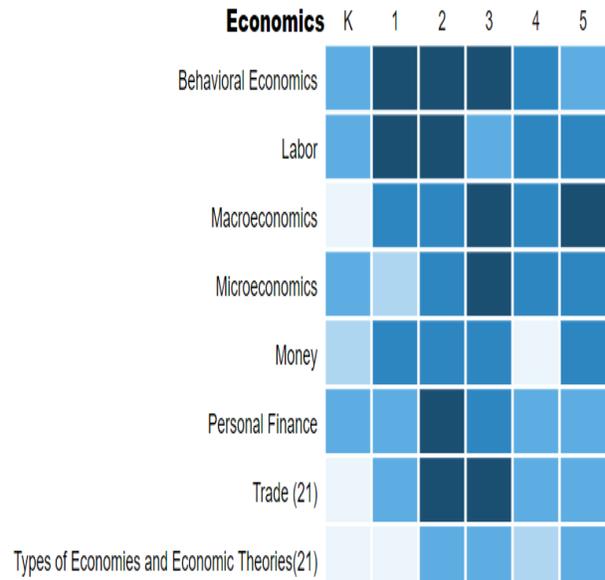
Figure 3. Heat map analysis of the *Economics* knowledge domain in Grades K-5.
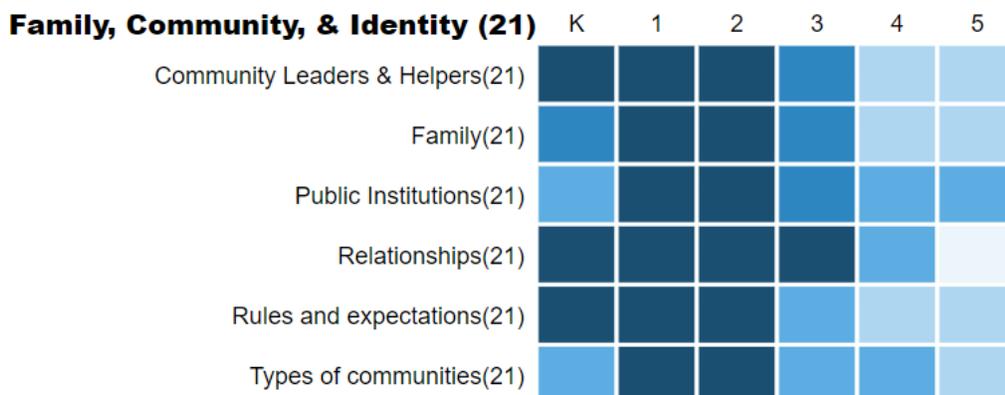
Figure 4. Heat map analysis of the *Family, Community, & Identity* knowledge domain in Grades K-5.
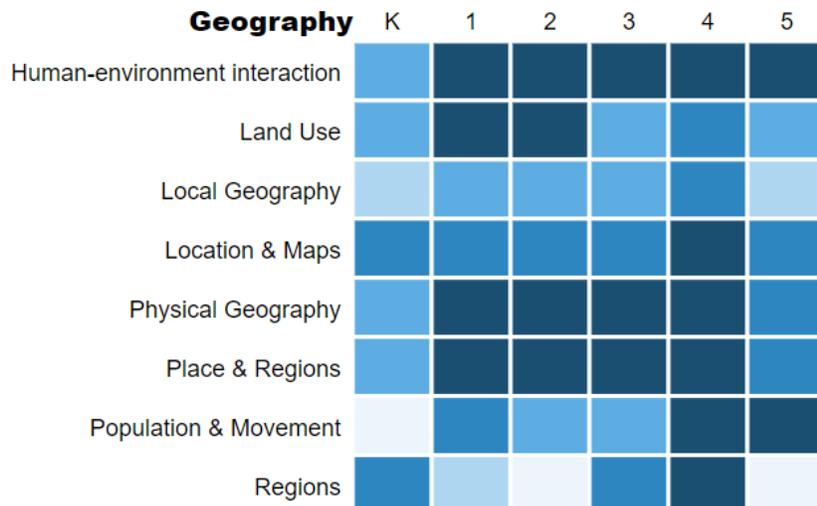
Figure 5. Heat map analysis of the **Geography** *domain in Grades K-5.*

Moderate Knowledge-Building Domains

The curriculum presents several moderate knowledge-building domains and topics. Moderate knowledge-building domains appear in the heat maps as lighter or more sporadically blue, indicating that some texts address the topics within them (for example, the heat map category of 2-4 Texts).

Six knowledge domains fall into the moderate knowledge-building category for this curriculum. Specifically, these domains include Anthropology (Figure 6), Equity & Inclusion (Figure 7), Global Themes (Figure 8), Sociology (Figure 9), US History Since 1865 (Figure 10), and US History To 1865 (Figure 11). Though these domains generally cover topics less completely than their stronger counterparts, they still provide meaningful coverage of topics within them.

Other domains present specific patterns of moderate knowledge building, even if the domain as a whole does not fall into that category. For example, a pattern can appear as moderate coverage in topics across grade levels. Though the Economics domain (Figure 3) presents strong coverage as a whole, more moderate coverage appears within the Types of Economics/Economic Theories topic. A second pattern appears as moderate numbers of texts across a domain's topics at individual grade levels. An instance of this pattern occurs in the Family, Community & Identity domain (Figure 4); the domain performs strongly overall, but more moderate coverage appears within the Grade 4 band.
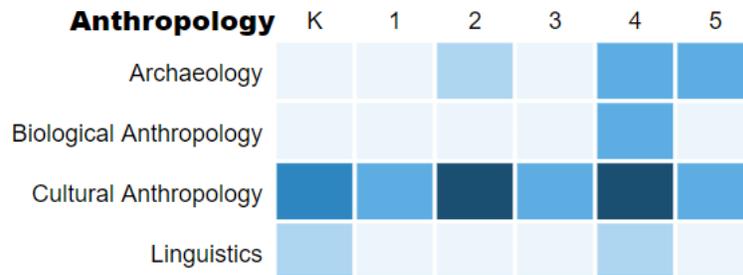
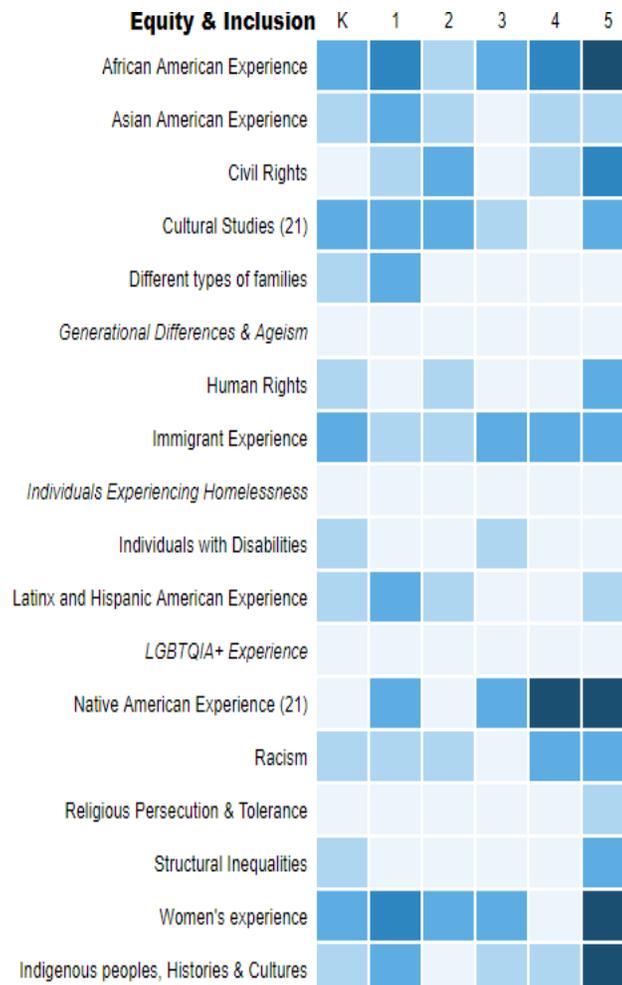Figure 6. Heat map analysis of the **Anthropology** knowledge domain in Grades K-5.

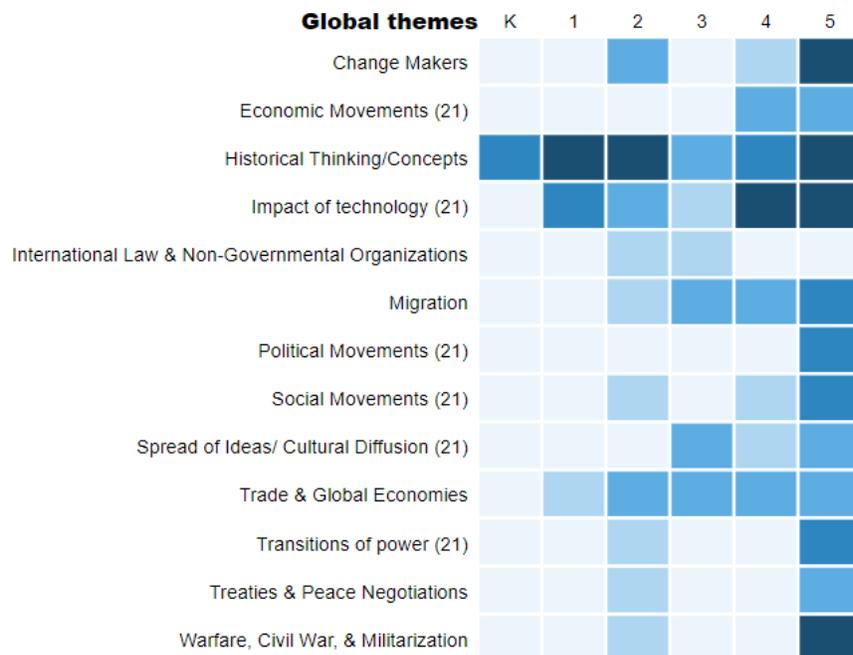Figure 7. Heat map analysis of the **Equity & Inclusion** knowledge domain in Grades K-5.

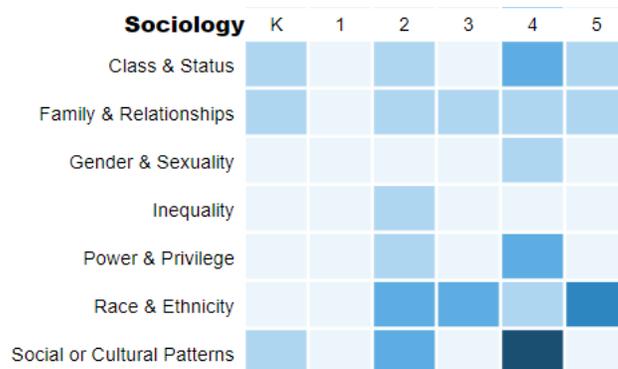*Figure 8. Heat map analysis of the **Global Themes** knowledge domain in Grades K-5.*

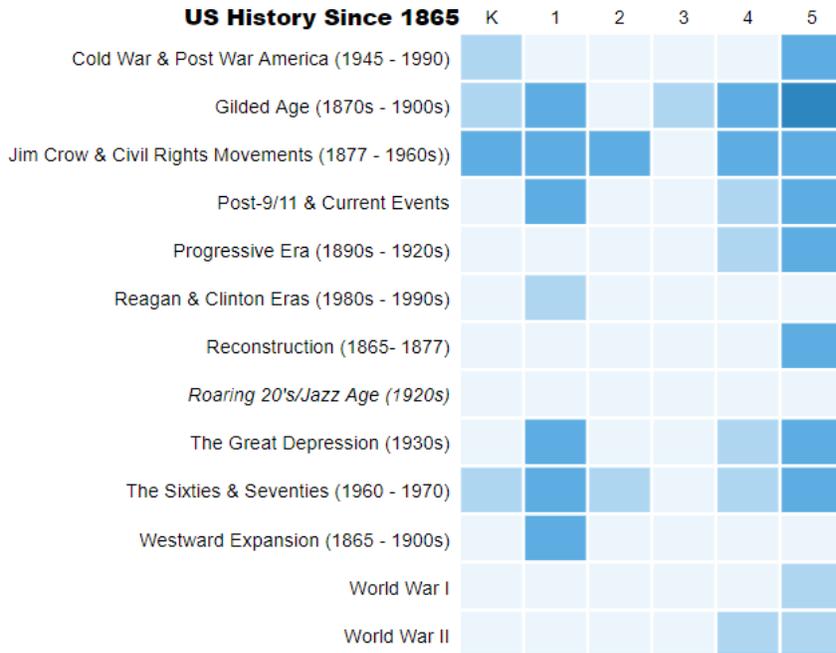*Figure 9. Heat map analysis of the **Sociology** knowledge domain in Grades K-5.*

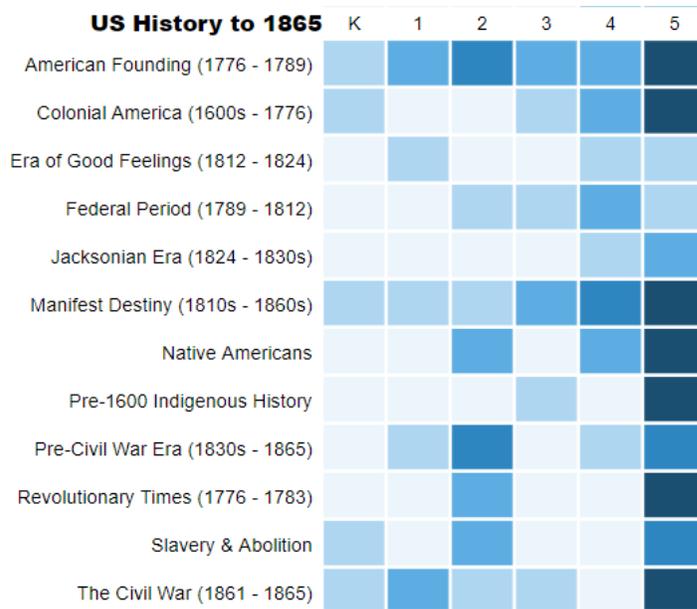Figure 10. Heat map analysis of the **US History Since 1865** knowledge domain in Grades K-5.

Figure 11. Heat map analysis of the **US History to 1865** knowledge domain in Grades K-5.

Minimal Knowledge-Building Domains

The curriculum presents minimal or light knowledge building in several domains and topics. Minimal knowledge-building domains appear in heat maps as primarily light blue or gray, indicating that one or no texts address the topic. It is important to note that absences at certain levels may reflect curricular progression decisions and other factors, and that the heat maps should be considered in the system's broader context. However, significant gaps may be worth examining in order to further develop reinforcement within the curriculum.

The eleven knowledge domains not yet mentioned in this report scored for minimal topical coverage. Specifically, these domains are African History (Figure 12), Ancient Civilizations (Figure 13), Asian History (Figure 14), Classical History (Figure 15), European History (Figure 16), Law & Criminology (Figure 17), Media (Figure 18), Mesoamerican, South American & Caribbean History (Figure 19), Philosophy (Figure 20), Psychology (Figure 21), and Religion (Figure 22). Two of these domains – Classical History and Philosophy – present no texts across the curriculum, most likely due to the lower age range of students in the evaluated grades.

Besides these generally light domains, other knowledge domains present specific gaps. One common pattern appears as an absence of texts regarding particular topics across grade levels. In this curriculum, the Sociology domain (Figure 9) provides an example of such a pattern; the domain scores moderately for overall coverage, but topics such as inequality and gender receive less attention. An additional pattern presents itself as a lack of domain coverage within a grade band. Visually, this appears in the map as empty columns beneath individual grade levels. For instance, the moderately-rated US History Since 1865 domain (Figure 10) presents very little coverage at the Grade 3 band. In a social studies curriculum especially, these absences are often due to the more specialized nature of year-long courses, so it is vital to measure these results against the system's goals for instruction at this level.
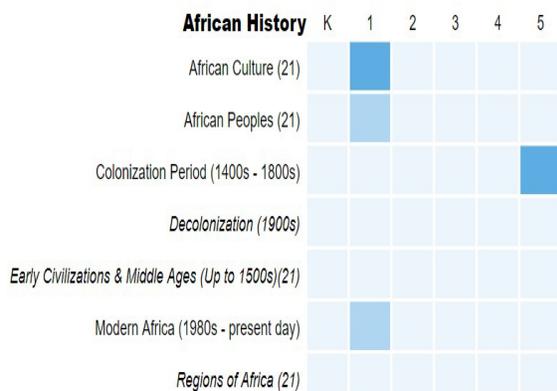

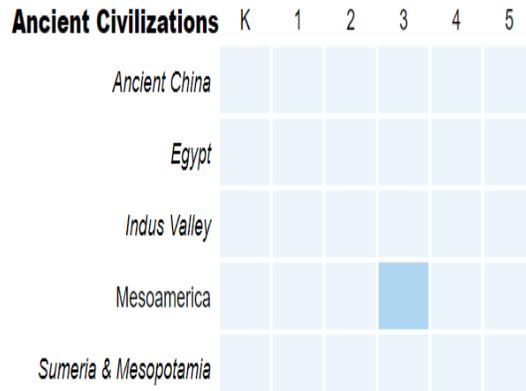*Figure 12. Heat map analysis of the **African History** knowledge domain in Grades K-5.*

*Figure 13. Heat map analysis of the **Ancient Civilizations** knowledge domain in Grades K-5.*
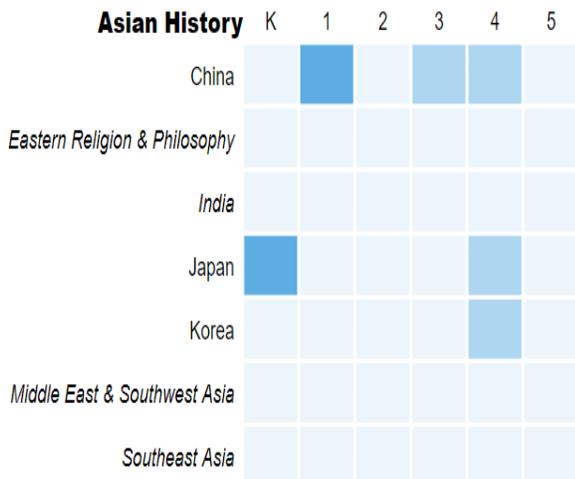
Figure 14. Heat map analysis of the **Asian History** knowledge domain in Grades K-5.
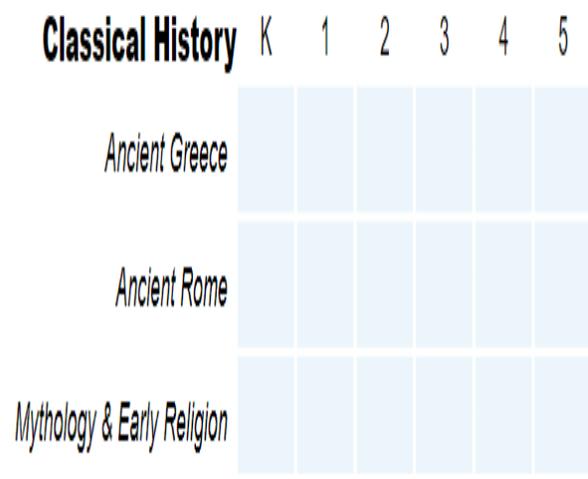

Figure 15. Heat map analysis of the **Classical History** knowledge domain in Grades K-5.
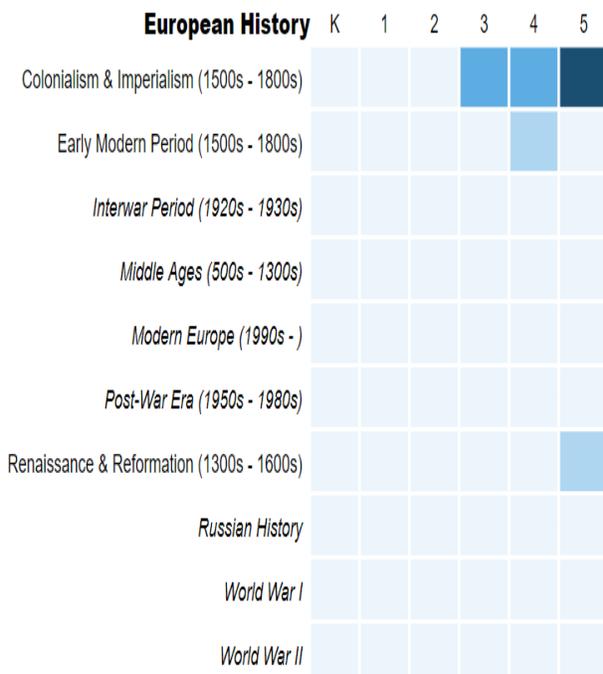

Figure 16. Heat map analysis of the **European History** knowledge domain in Grades K-5.
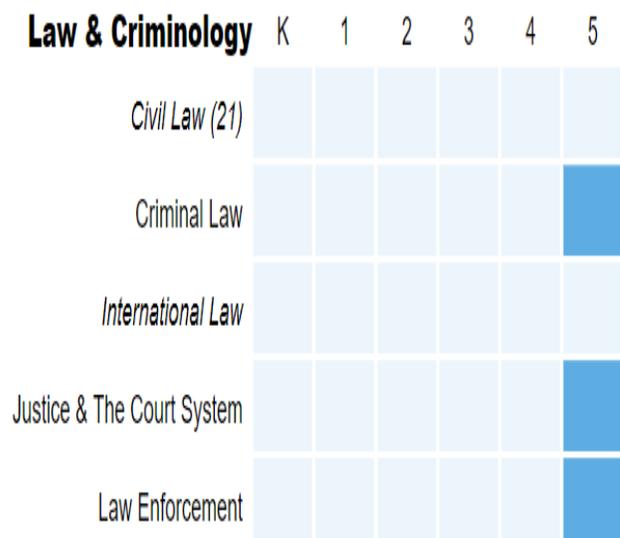

Figure 17. Heat map analysis of the **Law & Criminology** domain in Grades K-5.
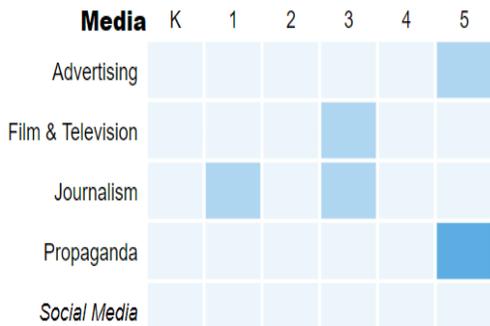
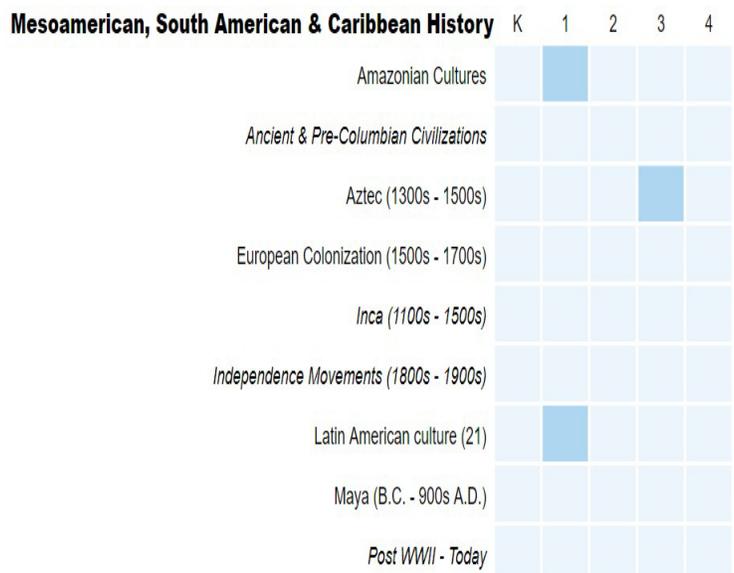*Figure 18. Heat map analysis of the **Media** knowledge domain in Grades K-5.*

*Figure 19. Heat map analysis of the **Mesoamerican, South American, & Caribbean History** knowledge domain in Grades K-5.*
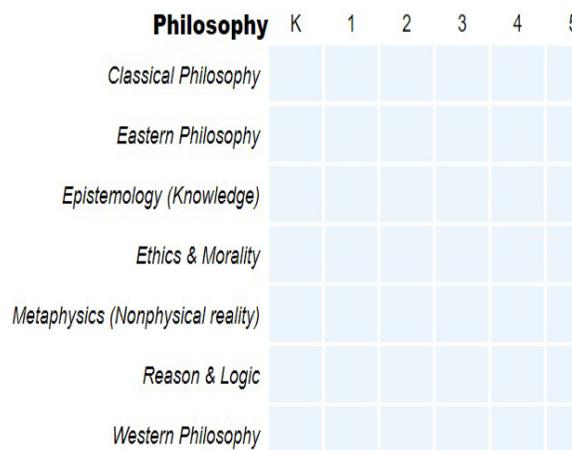

*Figure 20. Heat map analysis of the **Philosophy** knowledge domain in Grades K-5.*
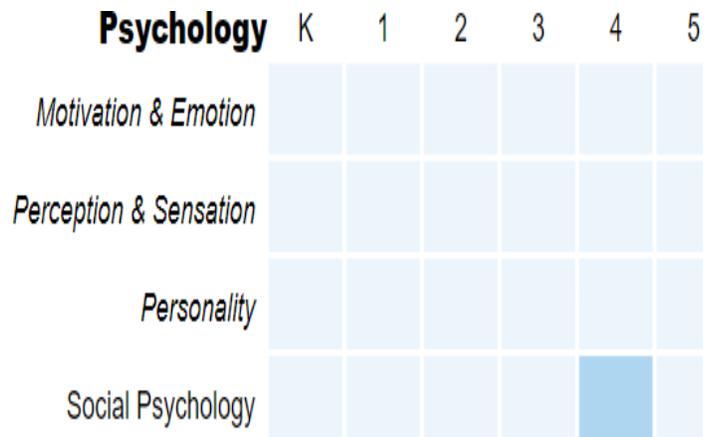

*Figure 21. Heat map analysis of the **Psychology** knowledge domain in Grades K-5.*
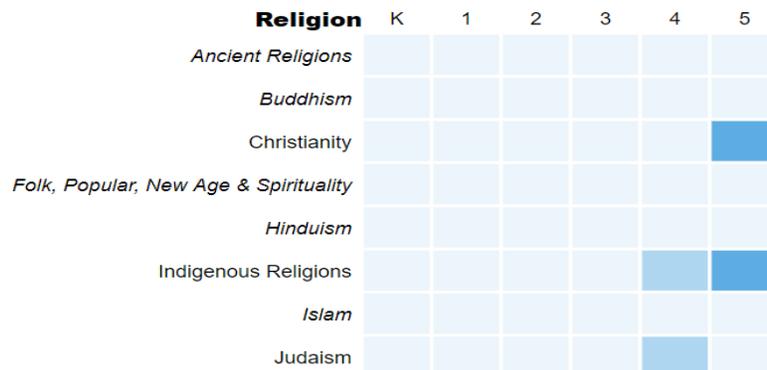
Religion	K	1	2	3	4	5
Ancient Religions						
Buddhism						
Christianity						■
Folk, Popular, New Age & Spirituality						
Hinduism						
Indigenous Religions						■
Islam						
Judaism						

*Figure 22. Heat map analysis of the **Religion** domain in Grades K-5.*

TCI QUALITY & COHERENCE

As mentioned previously, the Institute's analysis includes tagging each text for the knowledge domains, topics, and subtopics that it reinforces. The evaluation also rates each individual text for quality according to the rubric below. For each item, the Institute applies a tagging system that rates how well supplemental materials reinforce the knowledge found in the anchor text.

Quality and coherence findings vary and are not linked to each other. A unit may score highly on overall quality, shown as a percentage, but have a low coherence rating in terms of how well the supplemental texts reinforce the knowledge built in the anchor text. In other words, units with high overall quality scores may only weakly reinforce central themes through the inclusion of additional materials, and vice versa.

Rubrics for Quality

The Institute applies three rubrics for analysis of individual text quality – a rubric for written primary sources, visual primary sources, and all secondary sources.

Primary Sources: Written, Spoken, and Verbal

- *Emotion:* The degree to which the source is memorable due to its impact upon the reader.
- *Language:* The degree to which the source is an example of outstanding or representative writing.
- *Universal Questions:* The degree to which the source addresses important aspects of the human condition or the relevant historical context.
- *Content Knowledge:* The degree to which the source contributes to students' background knowledge of the tagged domains and topics.
- *Prominence:* The degree to which the source reflects its historical period or provides important context to the related events or documents.

Primary Sources: Visual, Artistic, or Non-Verbal

- *Emotion:* The degree to which the source is memorable due to its impact upon the reader.
- *Authenticity:* The degree to which the source reflects authentic interpretive experience or visual representation of the historical context.
- *Universal Questions:* The degree to which the source addresses important aspects of the human condition or the relevant historical context.
- *Content Knowledge:* The degree to which the source contributes to students' background knowledge about the tagged domains and topics.
- *Prominence:* The degree to which the source reflects its historical period or provides important context to the related events or documents.

Secondary Sources: Written, Spoken, and Visual

- *Accuracy:* The degree to which the source is empirically accurate.
- *Language/ Artistic Technique:* The degree to which the source is an example of outstanding writing or artistic expression.
- *Source:* The quality and trustworthiness of the source.
- *Content Knowledge:* The degree to which the source contributes to students' background knowledge about the tagged domains and topics.

The quality and coherence review also includes an evaluation that measures the presence or absence of two factors: multiple perspectives on a given subject and encouragement to create a deliberative classroom.

Unit Quality and Coherence Analysis

The Knowledge Map™ project allows for a unit-level analysis of quality and coherence. The Institute begins its analysis with heat maps, which illustrate coverage by grade bands of crucial knowledge domains and topics. It then builds upon that analysis through a quality scoring system that reflects the review of each individual text, outlined in the above rubrics and averaged across the entire text set. Finally, the Institute generates coherence graphs that illustrate the extent to which the supplemental materials reinforce the knowledge built by the anchor text (as measured through assigned topic tags). For most units in a social studies curriculum, the textbook is the anchor text. In units or grades lacking a textbook or other predefined anchor text, the highest-quality text serves as the anchor.

The coherence graph utilizes a ball-and-spoke visual, where the central ball represents the anchor and the surrounding balls represent the supporting materials. The numbers shown on each ball represent the number of topics in each supplemental material that correlate to the topics assigned to the anchor. The anchor always reinforces itself entirely; as such, the number on the central ball always equates to the total number of tags. The proximity of each spoke to the central ball visually conveys this relationship.

The quality and coherence findings for each grade level follow in the sections below. This report highlights the highest- and lowest-quality units for each grade, and pro- vides a discussion of knowledge reinforcement within those units. The caption below each graph provides an overall quality score for the unit. The Institute considers units with a text quality score of 75% or above to be high quality. A unit is acceptable as low as 66%, and any quality score below 66% denotes poor quality. The caption contains additional information about each graphic, including the grade level and unit number represented. In the graphic itself, the anchor text rating appears in the center, while individual supplemental text ratings appear on the nodes.
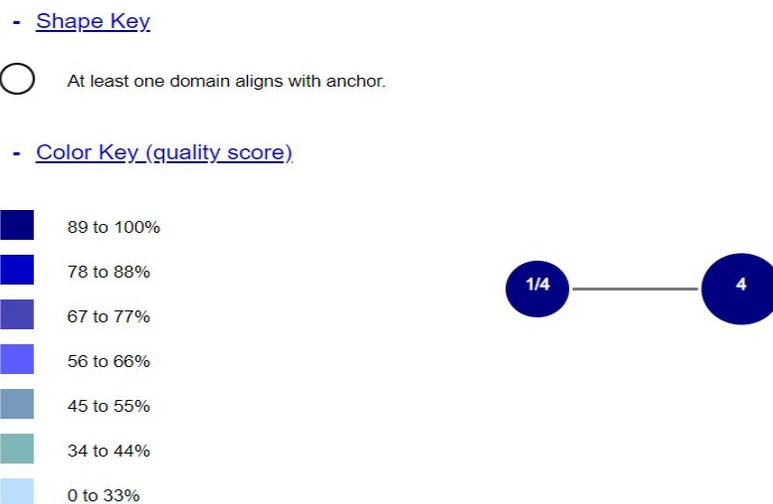
TCI QUALITY & COHERENCE FINDINGS: GRADES K-5

Grade K

Grade K receives an overall quality score of 96.57%, placing it firmly in the high-quality band.

Highest-Rated Unit

Several units within the grade achieved perfect quality scores of 100%. Coherence scores for these units vary, but tend to skew lower for units with multiple topic tags. Unit 5, for example, includes an anchor text with four topic tags and a supporting material that only shares one of those tags. Though the overall quality of materials within the entire grade is very strong, it is also important to ensure that they build off of each other from unit to unit to create a well-developed knowledge build for students in the system.

- Shape Key

◯   At least one domain aligns with anchor.

- Color Key (quality score)

■ 89 to 100%

■ 78 to 88%

■ 67 to 77%

■ 56 to 66%

■ 45 to 55%

■ 34 to 44%

■ 0 to 33%

Figure 23. Coherence map of Grade K, Unit 5, How Do I Solve Problems With Others? and related texts. Supporting materials weakly reinforce the anchor text. The average unit score for text quality is 100%.

Lowest-Rated Unit

Unit 2 is the lowest-quality unit at this grade level, with an average text quality score of 91.67%. A quality score this high for the grade's weakest unit serves as a testament to the overall strong materials students learn from within the grade. The Institute's analysis for coherence indicates weak knowledge reinforcement, as seen in the figure below. Of the anchor text's four related topic tags, the present supplementary material shares none of them, suggesting that there are few connections between the two.

- **Shape Key**

◯   At least one domain aligns with anchor.

- **Color Key (quality score)**

■ 89 to 100%

■ 78 to 88%

■ 67 to 77%

■ 56 to 66%

■ 45 to 55%

■ 34 to 44%

■ 0 to 33%
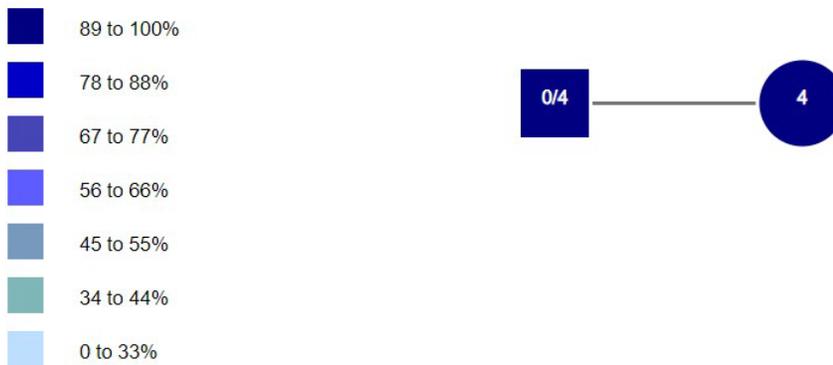
Figure 24. Coherence map of Grade K, Unit 2, What is a Family? and related texts. Supporting materials weakly reinforce the anchor text. The average unit score for text quality is 91.67%.

Grade 1

Grade 1 achieves an overall quality score of 97% even, placing it firmly in the high-quality band.

Highest-Rated Unit

Multiple units at this grade level achieve a perfect quality score of 100%, as was the case with the previous grade. Coherence analysis for these high-quality units reveal generally moderate knowledge reinforcement between their anchors and supplementary materials. Unit 10, seen below in Figure 25, presents an anchor text with seven assigned topics, and all supporting materials share at least two topic tags. This indicates that connections are generally being made across texts throughout this grade's highest-quality units.

At least one domain aligns with anchor.

- Color Key (quality score)

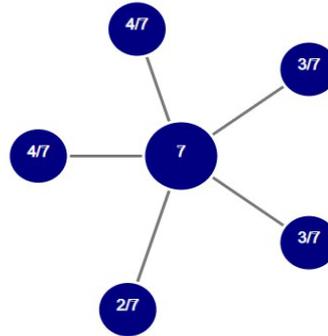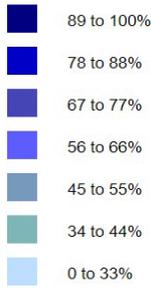|	
■	89 to 100%
■	78 to 88%
■	67 to 77%
■	56 to 66%
■	45 to 55%
■	34 to 44%
■	0 to 33%

Figure 25. Coherence map of Grade 1, Unit 10. What Do Families Need and Want? and related texts. Supporting materials moderately reinforce the anchor text. The average unit score for text quality is 100%.

Lowest-Rated Unit

Unit 8 is the lowest-quality unit at this grade level, with an average text quality score of 89.68%. Coherence analysis indicates that moderate reinforcement occurs within the unit, as seen in the figure below. One of the anchor's four topic tags does not appear in any of the supplementary materials, suggesting a potential gap in instruction regarding the topic of public institutions. The additional materials at this level vary in the connections they make to the anchor; while some level of coherence can be parsed from the results of this exercise, it may be worth noting which texts connect best to the main ideas of the unit.

- Shape Key

At least one domain aligns with anchor.

- Color Key (quality score)

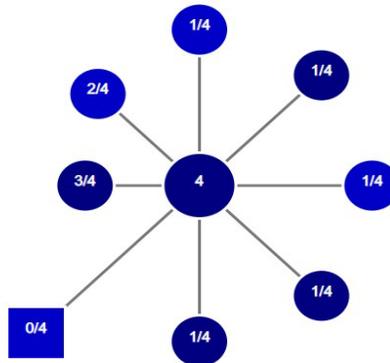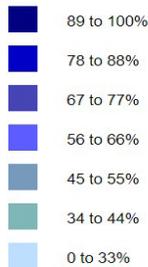|	
■	89 to 100%
■	78 to 88%
■	67 to 77%
■	56 to 66%
■	45 to 55%
■	34 to 44%
■	0 to 33%

Figure 26. Coherence map of Grade 1, Unit 8, What Groups Do We Belong To? and related texts. Supporting materials moderately reinforce the anchor text. The average unit score for text quality is 89.68%.

Grade 2

Grade 2 achieves an overall quality score of 79.72%, placing it in the high-quality band.

Highest-Rated Unit

Unit 11 is the highest-quality unit at this grade level, with an average text quality score of 83.33%. Coherence analysis suggests weak reinforcement within the unit, as demonstrated by the figure below. Of the five supplementary materials present within the anchor, three do not share any of the anchor's topic tags, suggesting a generally low connection between them. Additionally, one of the anchor's three topic tags does not appear again in the unit. Though individual text quality within the unit is strong, the texts included may not necessarily build off of each other.

- Shape Key

◯   At least one domain aligns with anchor.

- Color Key (quality score)

■ 89 to 100%

■ 78 to 88%

■ 67 to 77%

■ 56 to 66%

■ 45 to 55%

■ 34 to 44%

□ 0 to 33%
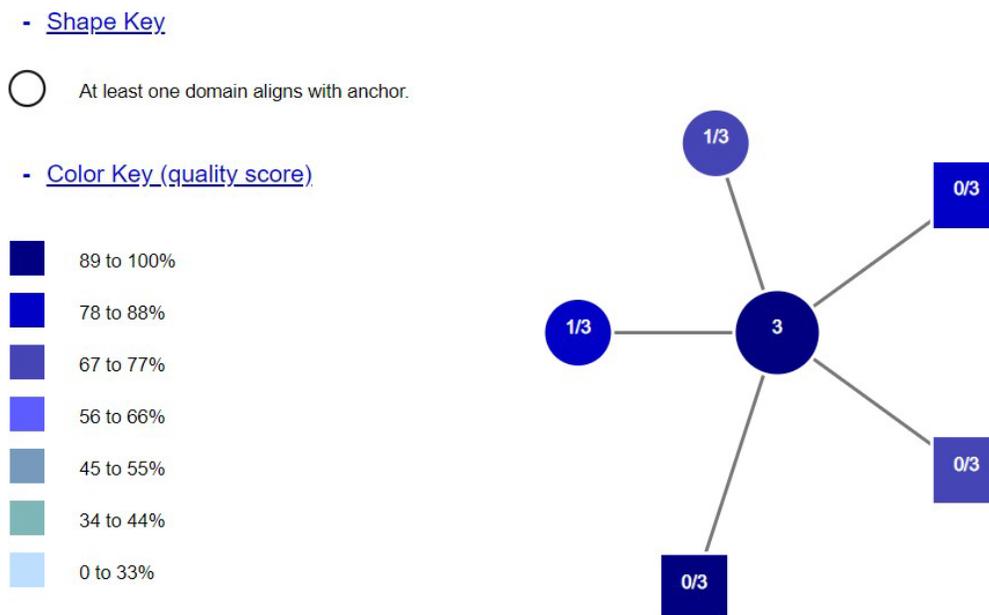
Figure 27. Coherence map of Grade 2, Unit 11, Remarks to Marie Curie by President Harding and related texts. Supporting materials weekly reinforce the anchor text. The average unit score for text quality is 83.33%.

Lowest-Rated Unit

Unit 12 is the lowest-quality unit within the grade, with an average text quality score of 76.39%. However, this unit is exemplary in terms of coherence, as shown below. The anchor text was tagged with three major topics, and all supporting materials share all three of them. These matching tags contribute to significant knowledge building throughout the unit, as the main ideas of the anchor are reflected in multiple texts. Simply put, this unit provides an ideal scenario for coherence, and can be referenced if working on creating more coherent units across the curriculum.
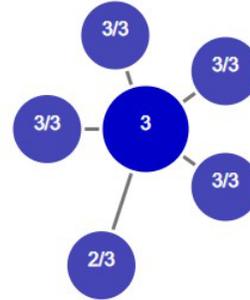
Figure 28. Coherence map of Grade 2, Unit 12, Leaders Vote for the Community and related texts. Supporting materials strongly reinforce the anchor text. The average unit score for text quality is 76.39%.

Grade 3

Grade 3 achieves an overall quality score of 69.83%, placing it in the acceptable quality band.

Highest-Rated Unit

Unit 6 is the highest-quality unit at this grade level, with an average text quality score of 79.49%. The Institute's coherence analysis reveals weak knowledge reinforcement within the unit. The anchor text was tagged with two prominent topics, one of which does not appear again within the supplementary materials. Additionally, one of the two supporting materials shares neither of the anchor's topic tags, indicating that this text in particular struggles to build upon the unit's main ideas. Though individual text quality within the unit remains strong, the texts may not be used to the best of their ability.
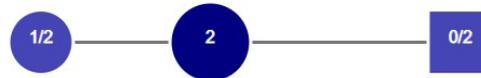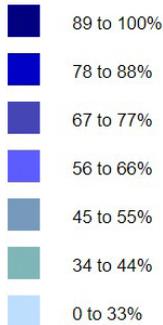
Figure 29. Coherence map of Grade 3, Unit 6, 1860s Speech in Washington and related texts. Supporting materials weakly reinforce the anchor text. The average unit score for text quality is 79.49%.

Lowest-Rated Unit

Unit 11 is the lowest-quality unit at this grade level, with an average text quality score of 63.89%. Coherence analysis indicates weak knowledge reinforcement within the unit. Three of the anchor's six topic tags do not appear in either of the supplementary sources, revealing a potential missed opportunity to build upon the unit's main ideas. The low number of shared tags across the unit suggest that extra care could be taken to ensure a coherent knowledge build at this level.
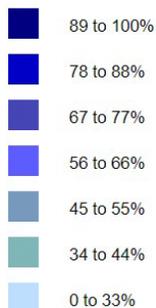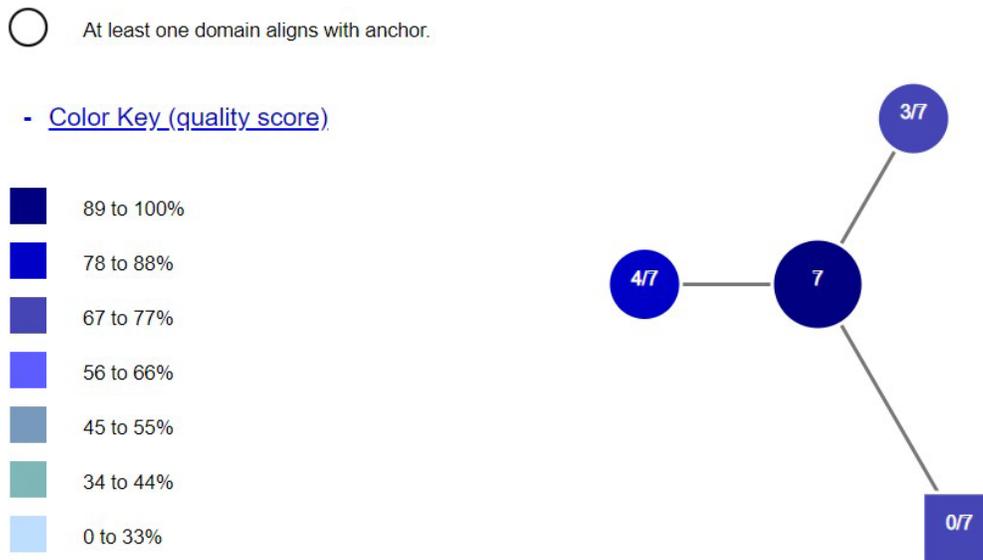
Figure 30. Coherence map of Grade 3, Unit 11, The United States and Global Trade and related texts. Supporting materials weakly reinforce the anchor text. The average unit score for text quality is 63.89%.

Grade 4

Grade 4 achieves an overall quality score of 68.45%, placing it in the acceptable quality band.

Highest-Rated Unit

Unit 17 is the highest-quality unit at this grade level, with an average text quality score of 77.08%. Coherence analysis indicates that low-to-moderate knowledge reinforcement occurs within the unit. Two of the three supplementary materials share considerable topic tags with the anchor, suggesting that these sources build upon each other. However, three of the anchor's seven topic tags do not appear again across the unit. A basis for a coherent unit exists here, but improvements could be made to ensure that the anchor's themes are reflected throughout.

Figure 31. Coherence map of Grade 4, Unit 17, Researching Your State's Government and related texts. Supporting materials weakly - to moderately reinforce the anchor text. The average unit score for text quality is 77.08%

Lowest-Rated Unit

Unit 13 is the lowest-quality unit at this grade level, with an average text quality score of 52.78%. The Institute's coherence analysis suggests weak knowledge reinforcement occurs within the unit, as shown in the figure below. Nine of the topic tags assigned to the anchor do not appear in the supplementary materials, indicating large gaps in knowledge building. Between the reduced quality of individual texts and the low levels of reinforcement, this unit provides a particularly poor example of both evaluated metrics, especially when compared to the general high quality of the curriculum.

- Shape Key

◯ At least one domain aligns with anchor.

- Color Key (quality score)

■ 89 to 100%

■ 78 to 88%

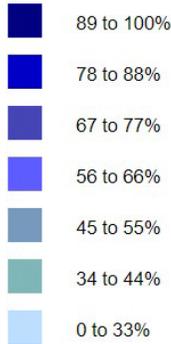■ 67 to 77%

■ 56 to 66%

■ 45 to 55%

■ 34 to 44%

■ 0 to 33%

Figure 32. Coherence map of Grade 4, Unit 13, Cities of the West and related texts. Supporting materials weakly reinforce the anchor text. The average unit score for text quality is 52.78%.

Grade 5

Grade 5 achieves an overall quality score of 92.13%, placing it squarely in the high-quality band.

Highest-Rated Unit

Unit 1 is the highest-quality unit at this grade level, with a perfect text quality score of 100%. Coherence analysis indicates that moderate-to-strong knowledge building occurs within the unit, as demonstrated by the figure below. The evaluated texts generally connect thematically to each other, meaning that ideas introduced in one text are built upon throughout the remainder of the unit. Though some tags, such as Local Geography and Manifest Destiny, do not appear more than once throughout the curriculum, the unit as a whole provides a good example of how to effectively use high-quality texts.
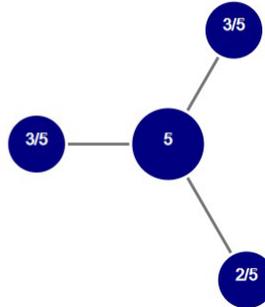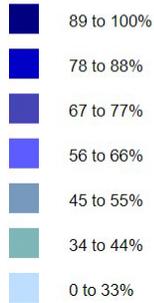
Figure 33. Coherence map of Grade 5, Unit 1, Geography of the United States and related texts. Supporting materials moderately-to-strongly reinforce the anchor text. The average unit score for text quality is 100%.

Lowest-Rated Unit

Unit 21 is the lowest-quality unit at this grade level, with an average text quality score of 78.63%. Coherence analysis reveals low knowledge building across the unit, as indicated by the figure below. Two of the main reading's topic tags do not appear across the remainder of the student-facing materials, and most materials only share one of its four tags. This reveals that though the texts are still generally well-written and developed, further care could be taken to ensure that students have main ideas and themes expanded upon when they access this unit.
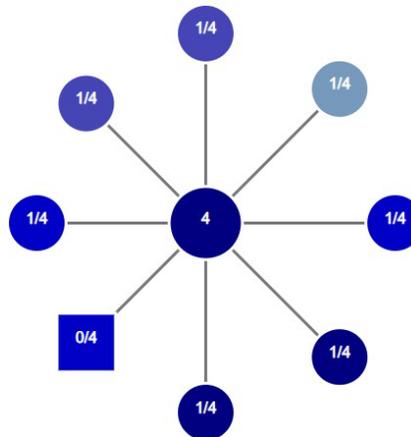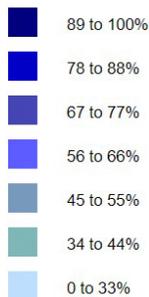

Figure 34. Coherence map of Grade 5, Unit 21, The Civil War and related texts. Supporting materials weakly reinforce the anchor text. The average unit score for text quality sis 78.63%.

TCI QUALITY ASSESSMENT

In summary, the TCI curriculum rates highly for quality, particularly at the earlier grade levels. Grades K, 1, 2, and 5 fall within the high-quality band when measured against the Institute's rubrics, with Grades K and 1 scoring near perfect scores. Though Grades 3 and 4 experience a dip in quality, they still fall within the percentage range for acceptable quality; with an overall quality score of 69.83%, Grade 3 scored on the cusp of a high-quality score. One potential area for improvement appears in the consistency between units, represented by the Difference column in the table below. The difference between the percentage scores of a grade's highest- and lowest-quality units represents how consistent the quality of instruction is throughout the grade. Grades 3 through 5 struggle on this metric, as the large differences at those grade levels suggest. Though the curriculum's text quality is generally strong, ensuring that each individual unit is strong as well will contribute to a standard knowledge build from grade to grade.

Grade	Overall Quality Score	Unit High Score	Unit Low Score	Difference (High-Low)
K	96.57%	100%	91.67%	8.33%
1	97.00%	100%	89.68%	10.32%
2	79.72%	83.33%	76.39%	6.94%
3	69.83%	79.49%	63.89%	15.60%
4	68.45%	77.08%	52.78%	24.30%
5	92.13%	100%	78.63%	21.37%

Table 1. Summary of unit quality scores in Grades K-5.

UNIT ANALYSIS OF OPEN CLASSROOM CLIMATE & MULTIPLE PERSPECTIVES

The Social Studies Knowledge Map™ also includes a unit-level assessment of the inclusion of multiple perspectives and the intended open classroom climate. The multiple perspectives score measures the extent to which the unit provides a holistic approach to its broader context by representing a range of voices and viewpoints. The open classroom climate score analyzes teacher-facing materials to determine the extent to which instructors are encouraged to include discussion and student inquiries. It also evaluates whether appropriate space is left for students to form their own opinions on controversial or contested issues.

The bar graphs provide the scores for each unit, and include an average for the entire grade on both measures. Scores in both categories range from 1 to 3; an average score of 2.5 or above is considered high, while a score between 2 and 2.5 is considered acceptable.

Across all grades, the TCI curriculum achieves an average Open Classroom Climate score of 2.6 and an average Multiple Perspectives score of 2.4. These scores place the curriculum in the strong range for Open Classroom Climate and in the acceptable range for Multiple Perspectives. Grades K through 2 achieve perfect scores on the Open Classroom Climate metric, indicating that students in early education are being equipped with the tools to discuss topics and ask questions of their teachers. Grade 4 earned the curriculum's lowest scores on both metrics, with a score of 2 for Open Classroom Climate and 1.94 for Multiple Perspectives. Though individual grades and units reveal potential areas for improvement, the overall scores on both metrics reveal a curriculum that prioritizes equipping students with critical thinking skills.
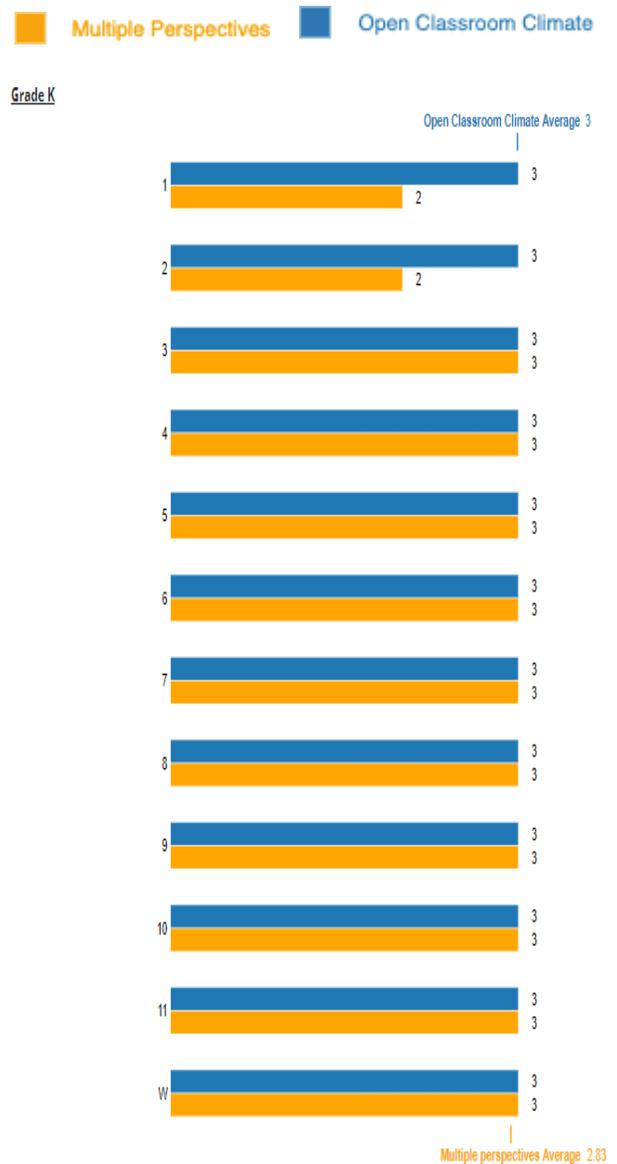

Figure 35. Visual representation of Multiple Perspectives and Open Classroom Climate scores for kindergarten.
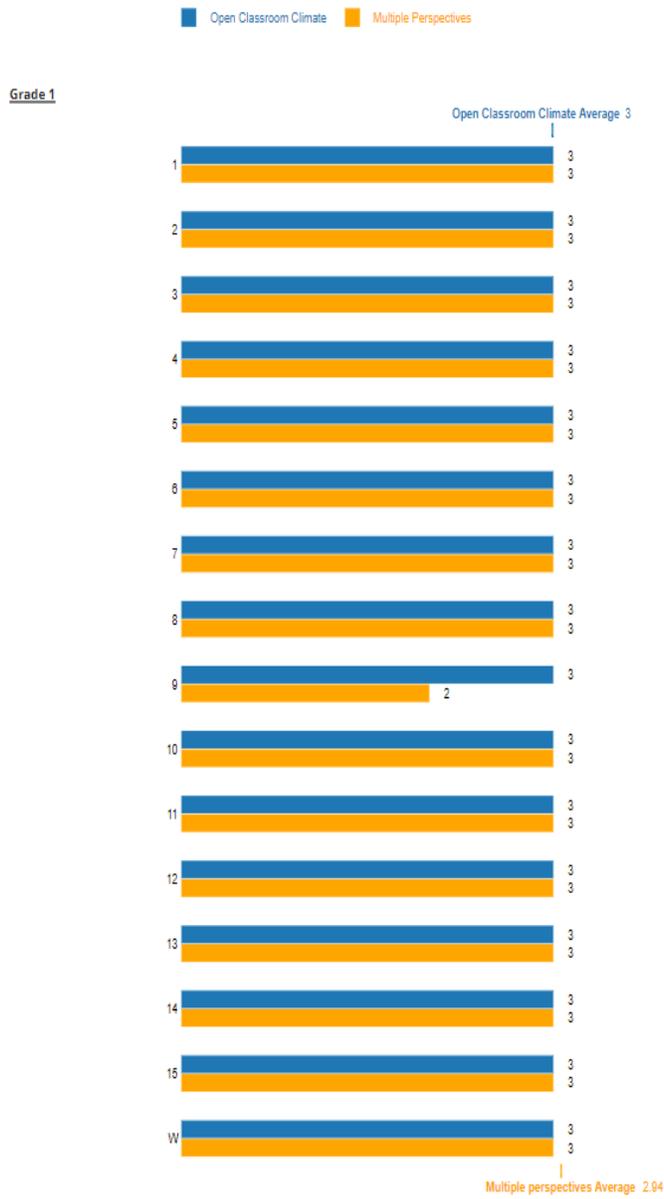
Figure 36. Visual representation of Multiple Perspectives and Open Classroom Climate scores for Grade 1.
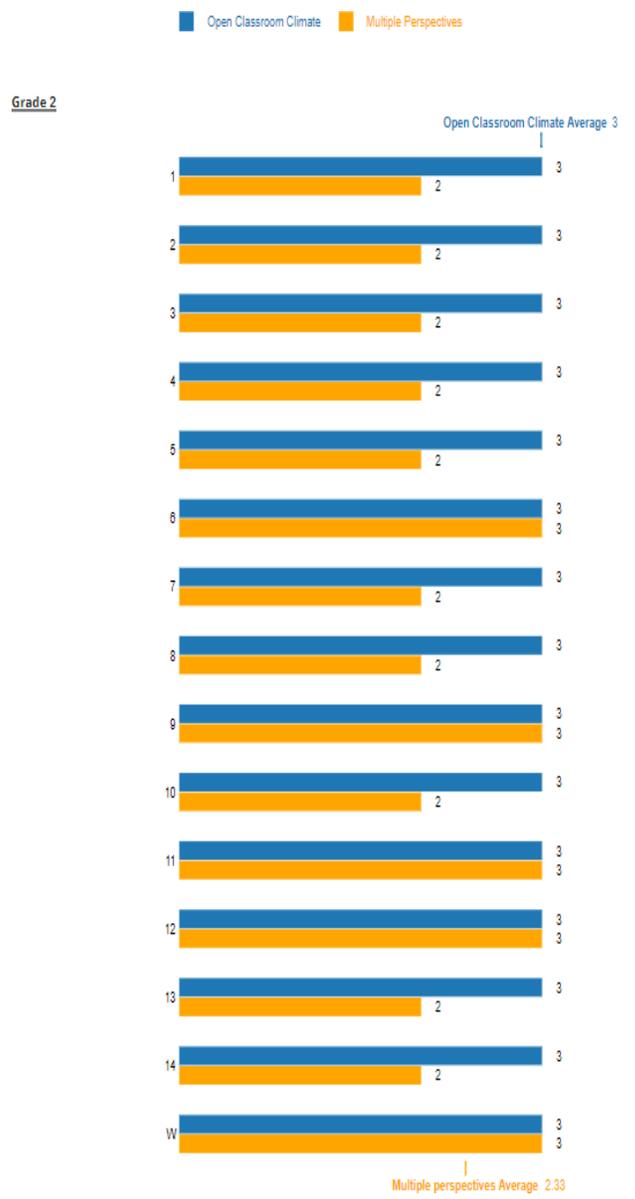

Figure 37. Visual representation of Multiple Perspectives and Open Classroom Climate scores for Grade 2.
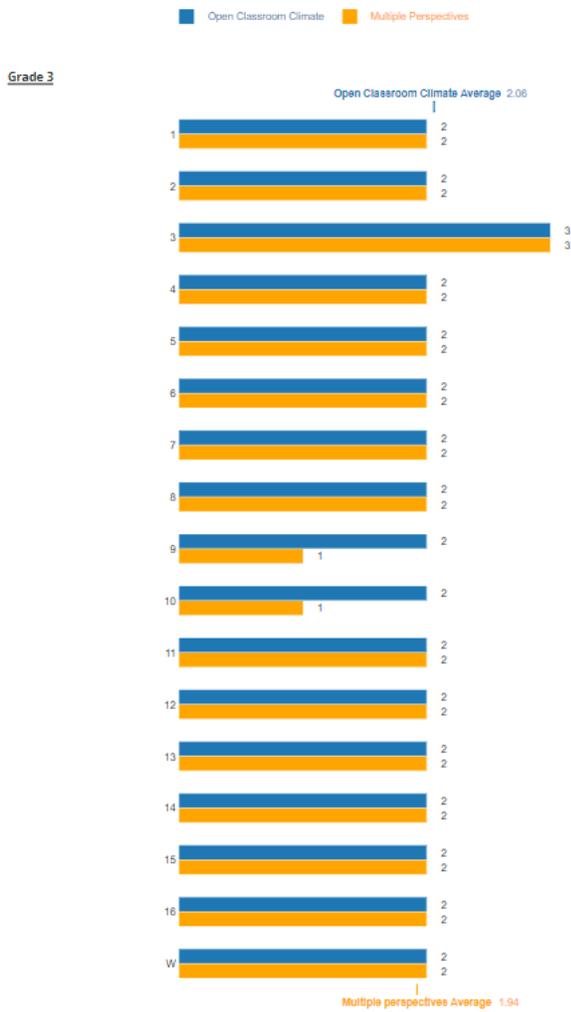
Figure 38. Visual representation of Multiple Perspectives and Open Classroom Climate scores for Grade 3.
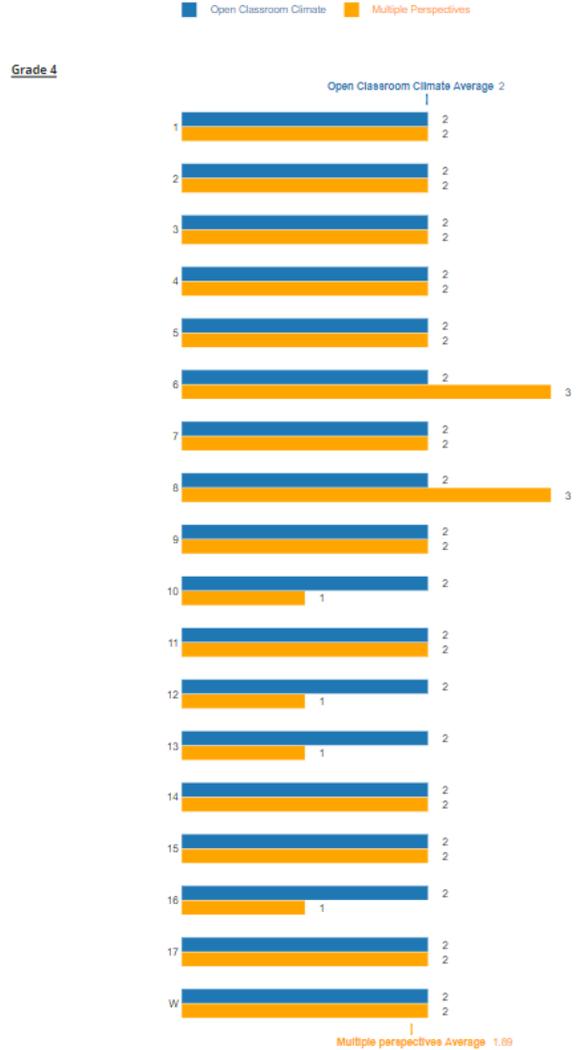

Figure 39. Visual representation of Multiple Perspectives and Open Classroom Climate scores for Grade 4.
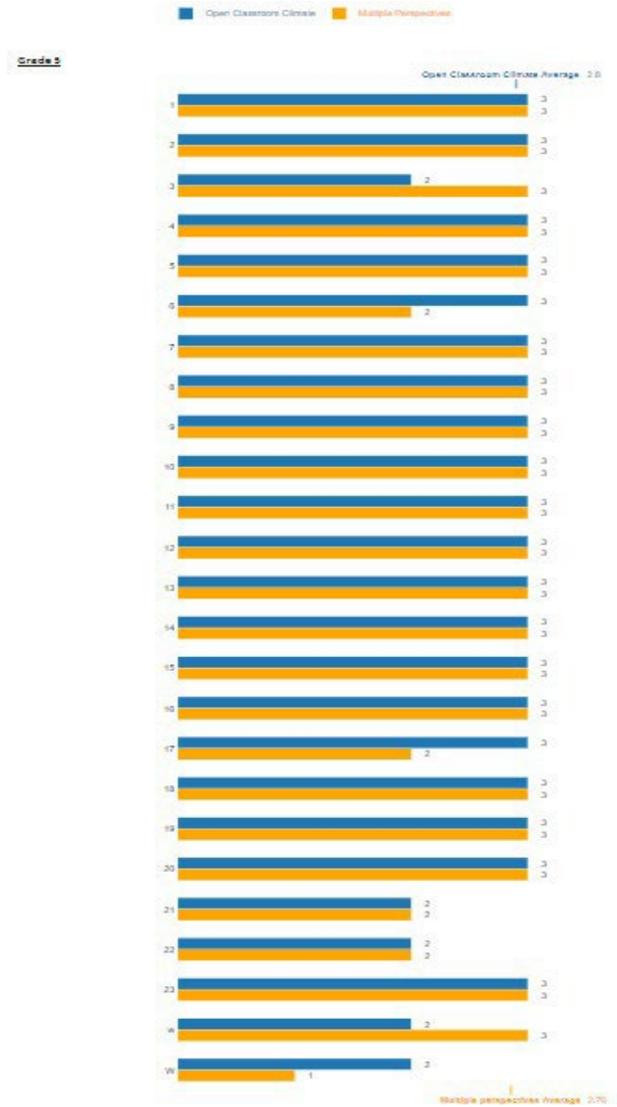
Figure 40. Visual representation of Multiple Perspectives and Open Classroom Climate scores for Grade 5.

LEARN MORE

View the other Social Studies Knowledge Map™ reports and learn more about the importance of high-quality curriculum at edpolicy.education.jhu.edu.

About the Institute

The Johns Hopkins University Institute for Education Policy is dedicated to integrating research, policy, and practice to achieve educational excellence for all of America's students. Specifically, we connect research to the policies and practices that will ensure all children have access to intellectually challenging curricula, highly-effective educators, and school models that meet students' diverse needs. By delivering the strongest evidence to the policymakers who set the course and the practitioners who teach and lead, we hope to serve the American children who enter our classrooms every day.

About the Sumners Foundation

The purpose of the Sumners Foundation is to encourage the study, teaching, and research into the science and art of self-government, to the end that the American people may understand the fundamental principles of democracy and be guided thereby in shaping governmental policies.

TCI

The TCI approach to Social Studies Curriculum Resources and Programs integrates proven teaching strategies, engaging content, and meaningful technology to excite students and foster their love of learning.

[i] Ashley Berner, "Funding Schools," in *Balancing Freedom, Autonomy, and Accountability in Education*, ed. Charles Glenn and Jan De Groof, vol. 1 (Tilburg: Wolf Legal Publishers, 2012), 115–29.E. D Hirsch, *The Knowledge Deficit: Closing the Shocking Education Gap for American Children* (Boston: Houghton Mifflin, 2016).

[ii] Common Core, "Why We're behind: What Top Nations Teach Their Students but We Don't." (Washington, D.C.: Common Core, 2009).Amy von Heyking, "Alberta, Canada: How Curriculum and Assessments Work in a Plural School System" (Baltimore, MD: Johns Hopkins Institute for Education Policy, June 2019), https://jscholarship.library.jhu.edu/bitstream/handle/1774.2/62962/alberta-brief.pdf?sequence=1&isAllowed=y

[iii] David E Campbell, "Voice in the Classroom: How an Open Classroom Climate Fosters Political Engagement Among Adolescents," *Political Behavior* 30, no. 4 (2008): 437–54.

[iv] Robert Kunzman, *Grappling with the Good: Talking about Religion and Morality in Public Schools* (Albany: State University of New York Press, 2006); Katherine G Simon, *Moral Questions in the Classroom: How to Get Kids to Think Deeply about Real Life and Their Schoolwork* (New Haven: Yale University Press, 2001).