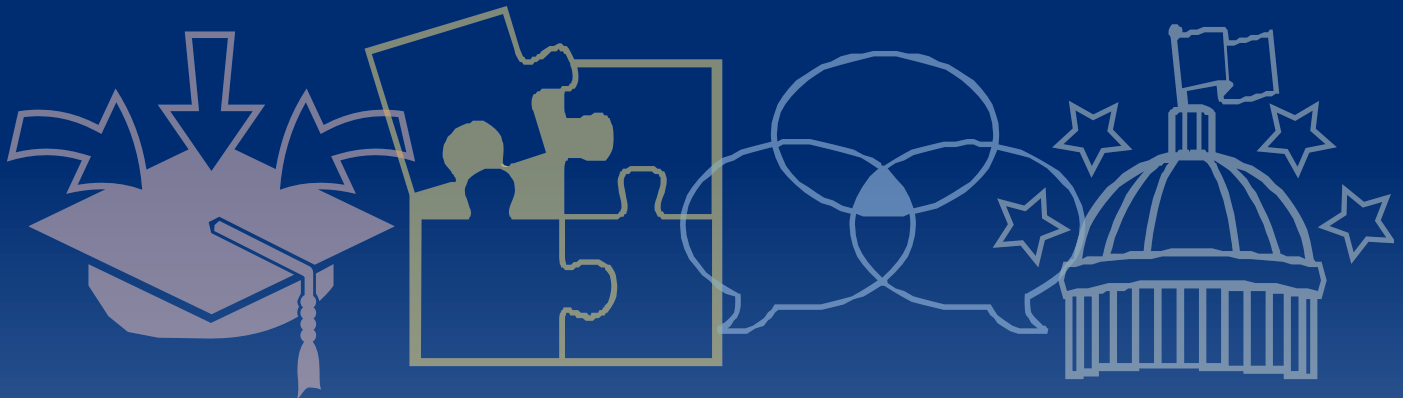




JOHNS HOPKINS
SCHOOL of EDUCATION

Institute for Education Policy



ELA Knowledge Map™



*A unique analytic resource enabling
policymakers, school leaders, and parents to
better understand the strengths and weaknesses
of the Living Books Curriculum for English language arts
for Grades K-8.*

Winter 2022



The achievement gap is, in large part, a knowledge gap. Compelling research strongly affirms that students' reading levels – particularly from fifth grade onwards – relate deeply to their level of background content knowledge.ⁱ Students in more affluent systems demonstrate more success in skill-based English language arts (ELA) assessments not only because they are better at “recognizing main ideas,” but also because they are far more likely to know more about the subject matter discussed in any given text. Research from around the world shows the same: [Most democracies around](#) the world require all schools to teach a standard body of knowledge; and a comprehensive, content-rich curriculum is a signature feature of [high-performing education systems](#). Despite the research record, a large number of the United States' ELA curricula treat texts not as a source of building knowledge, but merely as a site for attempting to hone abstract reading skills.

Determining whether a particular ELA curriculum is “standards aligned” is a helpful step, but it does not tell us about the knowledge-building capacity of that curriculum.ⁱⁱ For example: Instructional materials may use publisher-written texts that satisfy the standards-based requirement for “textual complexity,” but if the materials fail to offer students a sequenced, knowledge-rich learning experience they miss a critical opportunity to build reading fluency. Merely drilling students on “finding the main idea” will never help them become better readers. Instead, they need to understand what the text is really about - something that can only be achieved by acquiring the background knowledge.

The Johns Hopkins Institute for Education Policy (Institute) has developed the ELA Knowledge Map™, a tool with which to evaluate an ELA curriculum in terms of the knowledge it offers students, both about the world (mainly through nonfiction texts) and about psychology and the human condition (through both nonfiction and fiction texts). The Institute conducts this analysis by “mapping” the knowledge domains implicit in the selection of the documents to be read, while also evaluating each text's quality and the coherence of the unit in which is taught. To measure coherence, we assess the degree to

which supporting materials in a unit amplify and deepen the specific knowledge offered in the anchor text.

Each review generates two visual reports: *Knowledge Heat Maps* and *Unit Coherency Maps*.¹ The maps depict the fields of knowledge opened and those missed, in each grade and cumulatively, and with what quality of texts.

The Knowledge Map™ is a one-of-a-kind analytic resource that enables policymakers, school leaders, and parents to better understand the overall strengths and weaknesses of a given curriculum; instructional leaders to “fill in gaps” that might exist; and publishers to continuously improve the materials they offer the public.

For the present project, the Institute evaluated Living Books’ ELA curriculum for Grades K-8. It is important to note that the curriculum is designed to encompass many areas of the liberal arts, and to offer ample choices to parents. Thus, the Institute review constitutes a representative sample rather than all possible combinations of materials.

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.

HIGH-LEVEL FINDINGS

Living Books is a Christian, homeschooling curriculum, Grades K-8. It was inspired by the work of English educator Charlotte Mason and attempts to provide a liberal arts rather than a skills-based approach to learning.

The K-8 curriculum offers a steady knowledge build in American, British, and Global Literature; a strong use of the visual and performing arts (every grade includes key artists and composers); and a large number of resources on U.S. and World History. Most grades include important literary sources (e.g.,

¹ Unit coherency maps will only be generated if the curriculum materials enable that form of analysis.

Shakespeare, Aesop’s Fables). Many of the selections are intellectually rigorous, an approach which the Institute endorses based on strong research, but which families should be sure to scaffold appropriately according to their child’s background knowledge.

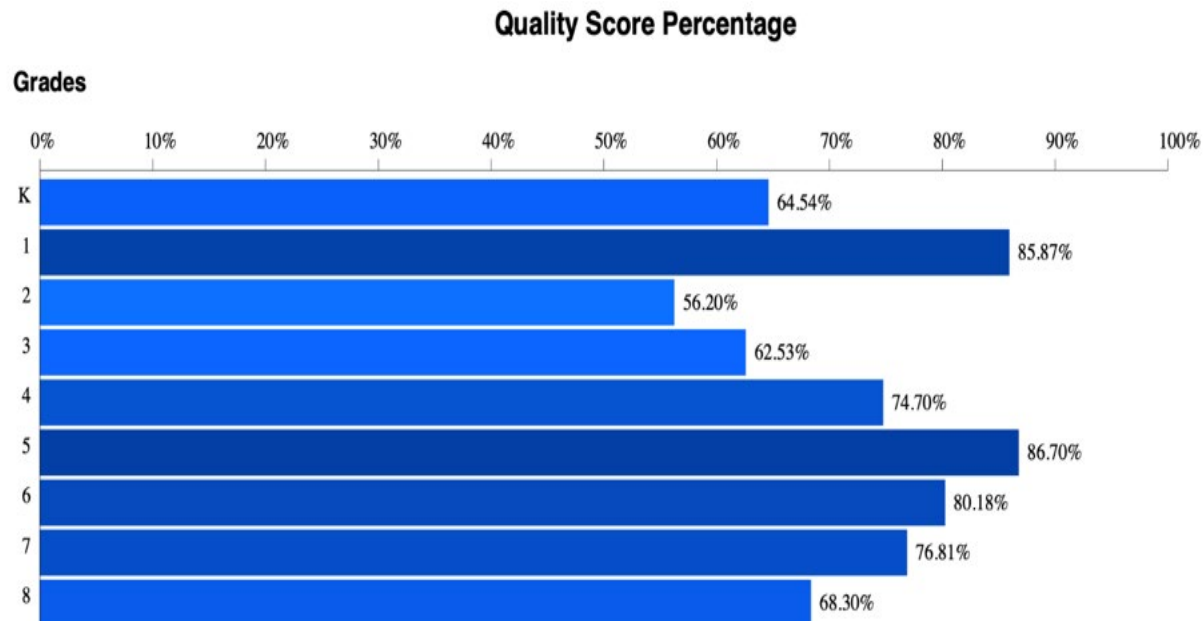


Figure 1. Summary of quality scores in Grades K-8.

The most important caveat for parents considering Living Books is its framing of historical events, which appears to take a generally positive view of colonialism and a distinctively negative view of non-European communities. The tone at time borders on nativism. We have concerns about the non-nuanced portrayal of historical figures such as Robert E. Lee, who in Grade 4 is called a “Gallant Christian Soldier,” or Herman Cortes, the 16th-century Spaniard whose occupation of Mexico is reported in Living Books as fairly positive. Even where civil rights figures such as Martin Luther King, Jr., are featured (such as in a first-grade book), the segregationist backdrop of his life and his fight for racial justice, are not described.

We also note the use of offensive terms, such as describing Native Americans as “savages” (*The First Thanksgiving*, Grade 1); “heather” (“How Pocahontas Took a Journey” from *This Country of Ours*, Grade 7); or “red man” (“The Adventures of LaSalle” from *Our Empire Story*, Grade 8). Black Australians are referred to as “savages” (“The First Traveller in Queensland” from *Our Empire Story*, Grade 8). Kindergarten includes a folk tale from Virginia Hamilton’s *The People Who Could Fly*, without redacting or explaining the “N” word. Note that our point is not about politically correct language; rather, we flag the terms here because they are derogatory. Furthermore, the materials offer no examples of Asian-Americans or Latinx role models. Taken together, these are serious issues that, at best, leave children unprepared to engage appropriately in the 21st-century public square and, at worst, impart a narrow vision of what it means to be a citizen in a pluralistic democracy.

INSTITUTE RECOMMENDATIONS

Living Books offers many high-quality books and stories. However, the curriculum does not critique, in any way, the majority (Protestant) culture of the late-19th and early-20th centuries, nor offer many reading suggestions outside of this narrow lens. Families who use Living Books might, therefore:

- Incorporate alternative historical perspectives, such as using primary sources (journals, books) written by those who were enslaved in this country;
- Include books written by non-Western authors and authors of color, such as *Things Fall Apart* (Chinua Achebe), *Their Eyes were Watching God* (Zora Neale Hurston);
- Remove materials that use pejorative terminology for non-majority populations;
- Consider whether 7th- and 8th- grade students might not benefit from encountering very different theological and intellectual frameworks.²

LIVING BOOKS KNOWLEDGE HEAT MAPS: GRADES K-5

A critical gateway question is, “How much exposure do children receive to each important domain of knowledge and topics within them?”

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 considers the context of age and grade level.



Figure 2. Heat map color-coded rating scheme of knowledge building, where lighter blue indicates fewer texts and darker blue indicates a larger number of texts.

Strong Knowledge-Building Domains

The curriculum presents robust knowledge building in few topics and domains (shown below alphabetically when similarly rated). Strong knowledge-building domains appear in the heat maps as dark blue, indicating many texts address the topic (i.e., the heat map categories of 8+ Texts or 5-7 Texts). Prevalence analysis divides the number of strong heat map ratings on a topic at grade level (i.e., number of darker blue squares) by the entire knowledge domain (i.e., total squares).

Three knowledge domains present the highest prevalence of strong knowledge-building texts, relative to the entire curriculum. These include: American Literature, 66.7% (n=12 of 18, Figure 3); Global Literature, 61.1% (n=11 of 18, Figure 4); and Social-Emotional, 72.2% (n=39 of 54, Figure 5). Note that prevalence analysis numbers depict mathematical averages.

² The Institute notes, for instance, that while most democracies fund a wide variety of religious and secular schools on equal footing, most require that students develop an understanding of comparative religion and ethics.

Many knowledge domains exhibit patterns of strength in specific topics across grade bands. One pattern exhibits a high prevalence of strong knowledge-building texts across all grade levels. Examples include Identity Development and Relationship Skills in Social-Emotional (Figure 5). The second noticeable pattern depicts a high prevalence of strong knowledge-building texts across four or five grade levels, including: Fiction and Poetry in American Literature (Figure 3); Emotions, Responsible Decision-Making, and Social Awareness in Social-Emotional (Figure 5); and Animals in Science (Figure 7). Patterns of strength within knowledge domains indicate that students receive strong reinforcement of specific topics throughout their elementary careers.

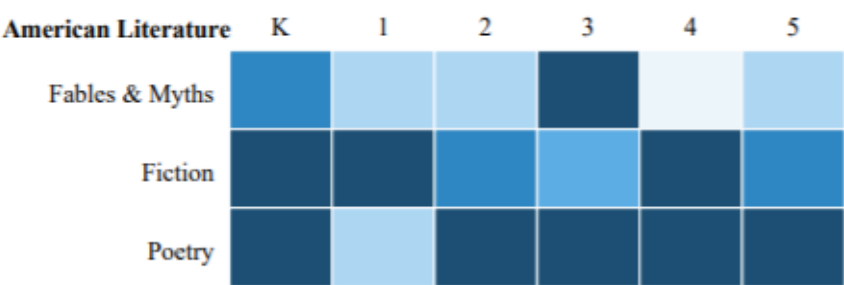


Figure 3. Heat map analysis of the American Literature knowledge domain in Grades K-5.

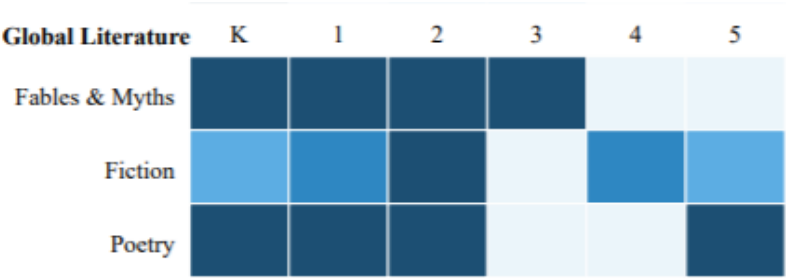


Figure 4. Heat map analysis of the Global Literature knowledge domain in Grades K-5.

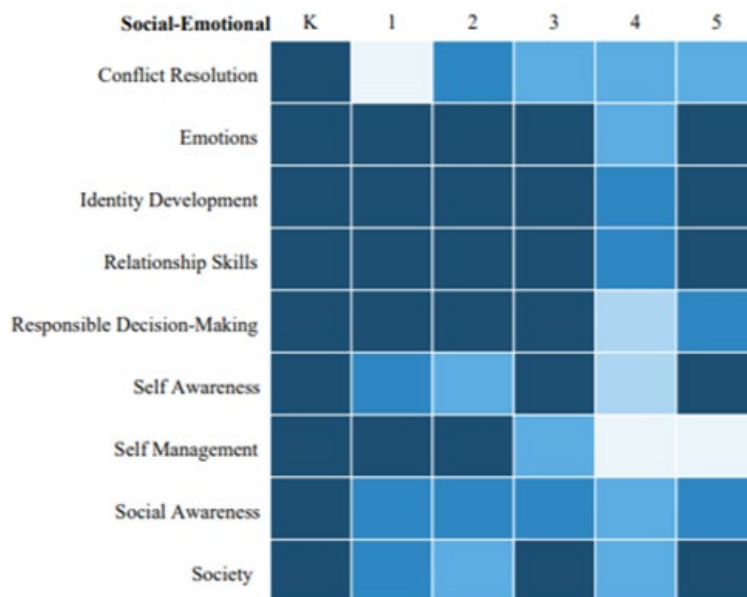


Figure 5. Heat map analysis of the Social-Emotional knowledge domain in Grades K-5.

Moderate Knowledge-Building Domains

The curriculum additionally presents moderate knowledge-building domains and topics. Moderate knowledge-building domains appear in the heat maps as mixed blue, indicating few-to-some texts addressing the topic (i.e., the heat map category of 2-4 Texts). Prevalence analysis divides the number of moderate heat map ratings on a subject at grade level (i.e., number of medium blue squares) by the entire knowledge domain (i.e., total squares).

Specifically, the reviewers note three knowledge domains for moderate prevalence of knowledge-building texts in all domain topics, relative to the entire curriculum. These domains include: American History & Geography, 15.9% (n=22 of 138, Figure 6); Science, 17.5% (n=20 of 114, Figure 7); and Visual Arts, 30.0% (n=9 of 30, Figure 8).

Specific patterns of moderate knowledge building arise within particular topics across grade bands. For example, the most common pattern presents moderate coverage in topics across two or three grade levels. Examples of this pattern includes the topics of Native American Peoples and Slavery & Abolition in American History & Geography (Figure 6); Astronomy and Plants in Science (Figure 7); and World Cultures in Diversity & Cultural Responsiveness (Figure 9). This pattern reveals moderate knowledge building in many topics within and across grade levels.

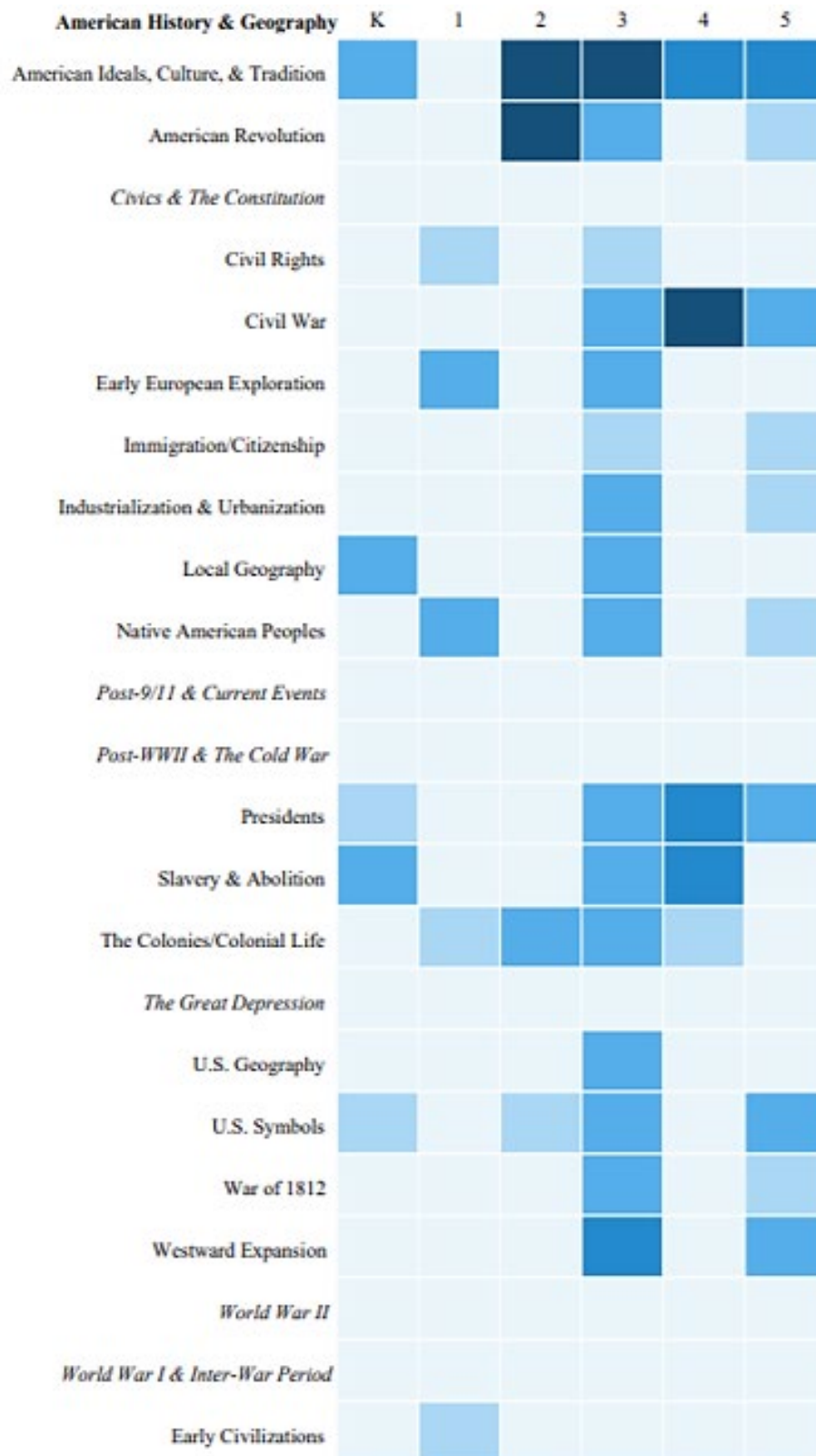


Figure 6. Heat map analysis of the American History & Geography knowledge domain in Grades K-5.

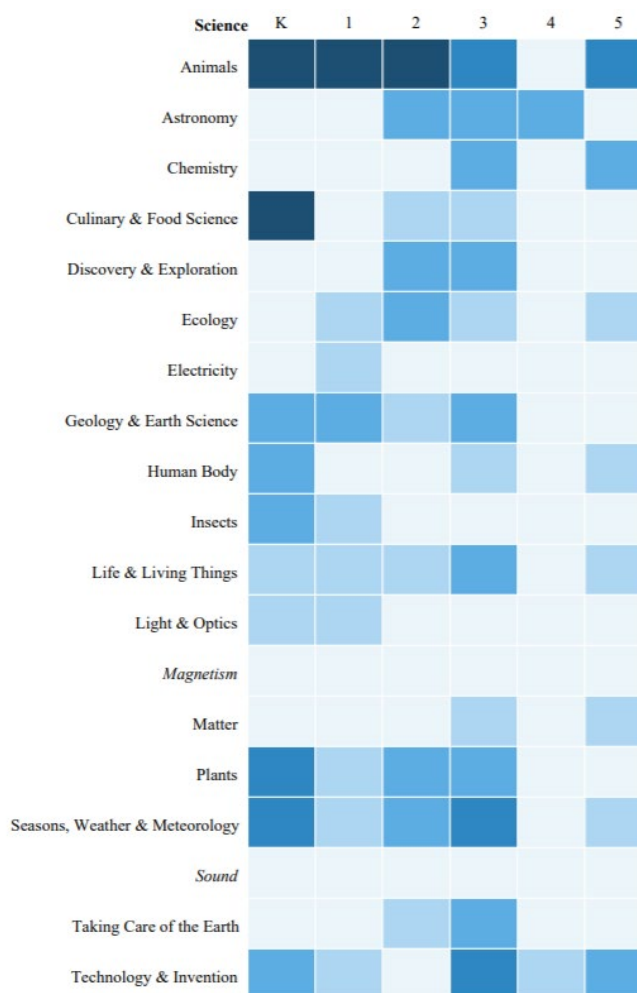


Figure 7. Heat map analysis of the Science knowledge domain in Grades K-5.

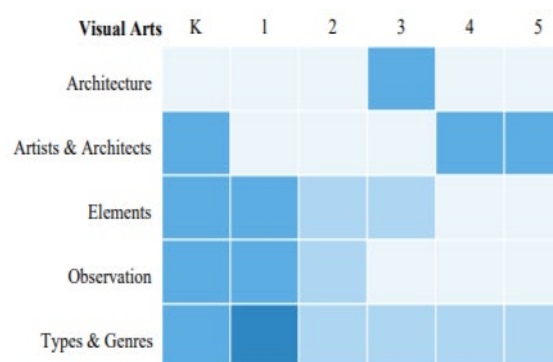


Figure 8. Heat map analysis of the Visual Arts knowledge domain in Grades K-5.

Weak Knowledge-Building Domains

The curriculum presents insufficient or weak knowledge building in a few knowledge domains and topics. Weak knowledge-building domains appear in the heat maps as light blue or gray, indicating one or no texts address the topic. We do not perform prevalence analysis on weak domains because there is not enough data to be meaningful. However, domains with 60% or more of the topics showing no or one text are included in the Weak category. Specifically, researchers note five knowledge domains for weak knowledge-building texts in all domain topics. These include: Diversity & Cultural Responsiveness (Figure 9); Mathematics (Figure 10); Music & Performing Arts (Figure 11); Public Institutions (Figure 12); and World History & Geography (Figure 13).

Apart from these overall weak domains, all other knowledge domains display specific weaknesses. One pattern of specific weakness is the absence of texts across grade levels. Some examples include Civics & The Constitution, The Great Depression, and World War II in Figure 6; Asian American Experience, Latinx & Hispanic Experience, and LGBTQIA+ Experience in Figure 9; and Banks in Figure 12.

A final pattern of weakness presents as a lack of domain coverage within a grade band. A visual scan of the Knowledge Map™ reveals this pattern as empty columns beneath individual grade levels. For example, Public Institutions (Figure 12) is a weak domain partly because grades 1, 2, 4, and 5 contain no texts on any topic in the domain. Such absence may reflect curricular progression decisions and other factors, but significant gaps may still be worth examining.



Figure 9. Heat map analysis of the Diversity & Cultural Responsiveness knowledge domain in Grades K-5.

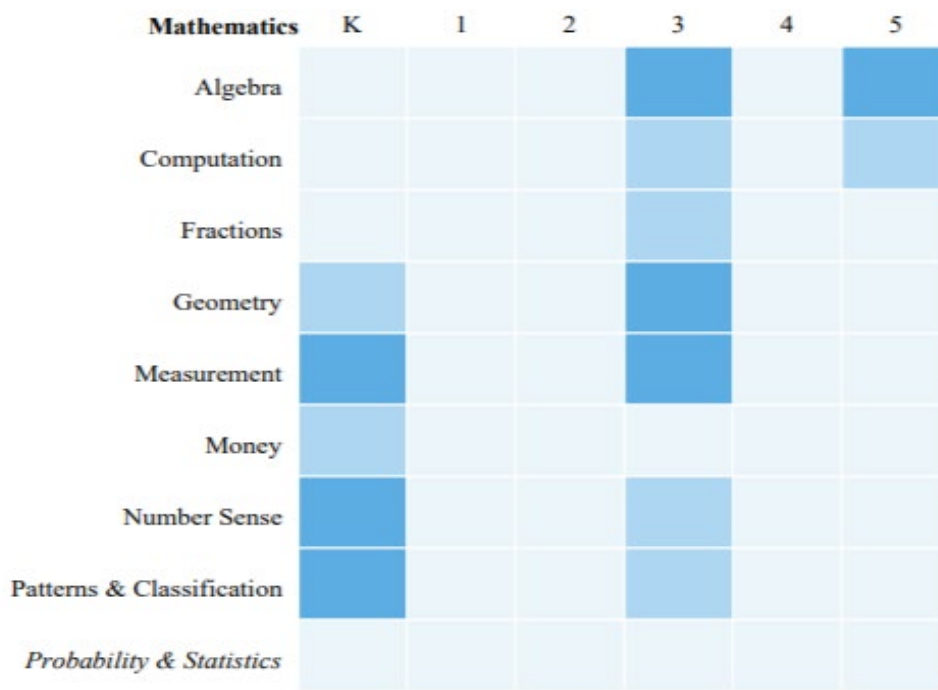


Figure 10. Heat map of the Mathematics knowledge domain in Grades K-5.

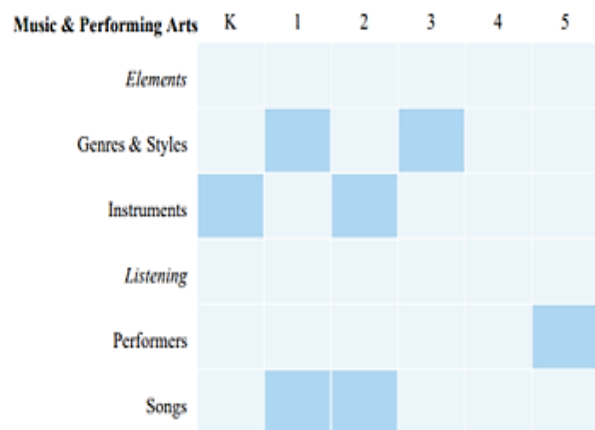


Figure 11. Heat map analysis of the Music & Performing Arts knowledge domain in Grades K-5.

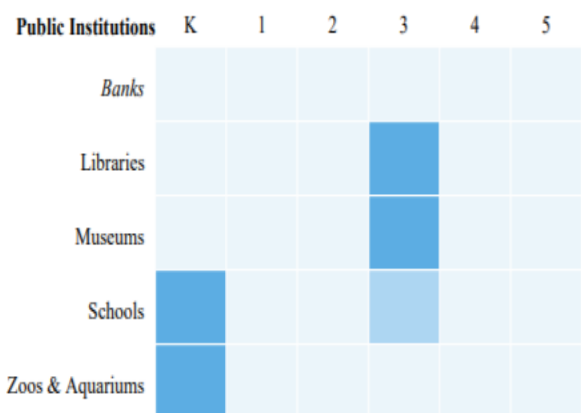


Figure 12. Heat map analysis of the Public Institutions knowledge domain in Grades K-5.



Figure 13. Heat map analysis of the World History & Geography knowledge domain in Grades K-5.

LIVING BOOKS KNOWLEDGE HEAT MAPS: GRADES 6-8

The Institute continued heat map analysis of grade 6 using the same criteria and processes as the prior analysis of grades K-5. Our findings of knowledge-building domains include strong, moderate, and weak ratings. Each heat map expresses the findings visually using a color-coding scheme, as shown in Figure 2. Lighter blue squares represent lesser numbers of knowledge-building texts, and darker blue squares represent greater numbers of knowledge-building texts. The results of text analysis for each of 22 topical domains for the Grades 6-8 curriculum appear in Figures 13-34, below.

See Figure 2 for reference.

Strong Knowledge-Building Domains

The curriculum presents strong knowledge building in several domains and many topics. Strong knowledge-building domains appear in the heat maps as dark blue, indicating many texts address the topic (i.e., the heat map categories of 8+ Texts or 5-7 Texts). Prevalence analysis divides the number of strong heat map ratings on a topic at grade level (i.e., number of darker blue squares) by the entire knowledge domain (i.e., total squares).

Specifically, the Institute considers three knowledge domains as strong with a high prevalence of knowledge-building texts, relative to the entire curriculum: American Literature, 20.5% (n=8 of 39, Figure 14); Earth, Life, & Medical Sciences, 15.4% (n=6 of 39, Figure 15); and Emotions, Being, & Personal Psychology, 83.3% (n=45 of 54, Figure 16).

Knowledge domains exhibit few patterns of strength in particular topics across grade bands. One pattern demonstrates high prevalence of strong knowledge-building texts across 66.7% or 100% of grade levels. Examples include Modernism (1914-1945) and Romanticism (1820-186) in Figure 14; Psychology & Cognitive Science in Figure 15; Big Questions, Relationships, and The Self in Figure 16; Victorian (1832-1901) in Figure 17; American Identity and Community in Figure 18 and Christianity in Figure 30. Patterns of strength within knowledge domains indicate that students infrequently receive strong reinforcement of specific topics throughout their secondary careers.

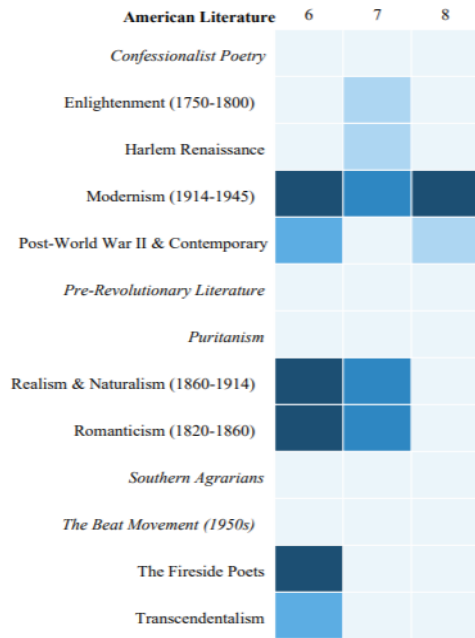


Figure 14. Heat map analysis of the American Literature knowledge domain in Grades 6-8.

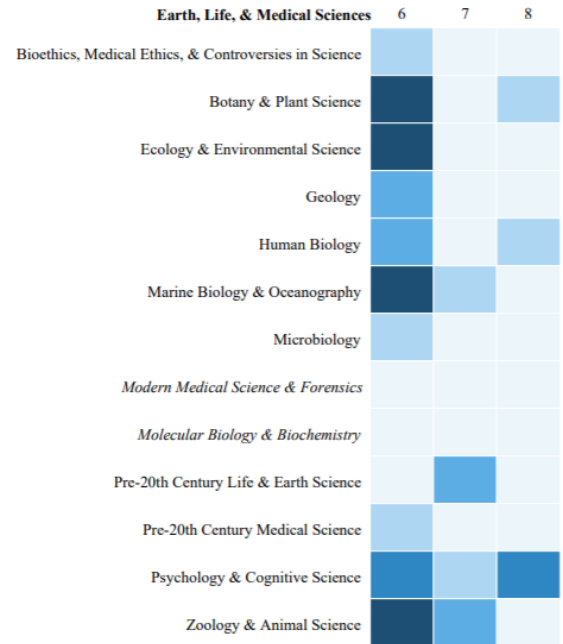


Figure 15. Heat map analysis of the Earth, Life, & Medical Sciences knowledge domain in Grades 6-8.

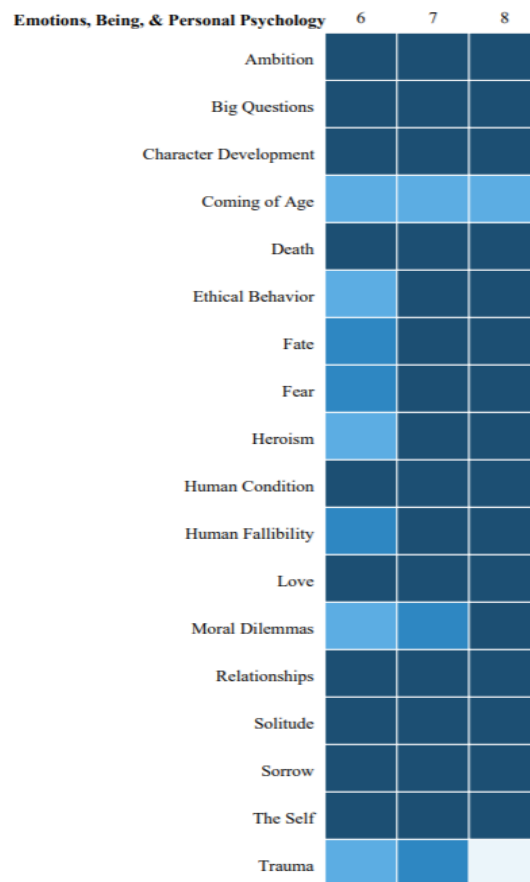


Figure 16. Heat map analysis of the Emotions, Being, & Personal Psychology knowledge domain in Grades 6-8.

Moderate Knowledge-Building Domains

Moderate knowledge-building domains appear in the heat maps as mixed blue, indicating few-to-some texts addressing the topic (i.e., the heat map category of 2-4 Texts). Prevalence analysis divides the number of moderate heat map ratings on a topic at grade level (i.e., number of medium blue squares) by the entire knowledge domain (i.e., total squares).

Specifically, analysis shows four knowledge domains notable for moderate prevalence of texts in all domain topics, relative to the entire curriculum. These domains include: British Literature, 30.8% (n=12 of 39, Figure 17); Social Sciences (Politics, Economics, Sociology), 28.9% (n=26 of 90, Figure 18); U.S. History to 1865, 33.3% (n=10 of 30, Figure 19); and World Geography, 14.6% (n=7 of 48, Figure 20).

Specific patterns of moderate knowledge building arise within particular topics across grade bands. While plenty of examples exist, some include: Edwardian (1901-1914) in British Literature (Figure 17); Race and Technology & Society in Social Sciences (Politics, Economics, Sociology) (Figure 18); Civil War (1861-165) and Slavery & Abolition (Figure 19); Africa American Experience and Native American Experience in Diverse & Cultural Responsiveness (Figure 21); The Bible in Religion (Figure 30) and Ancient Greece & Ancient Rome in World History to 1600 (Figure 35). These patterns reveal moderate knowledge building in many topics within and across grade levels.

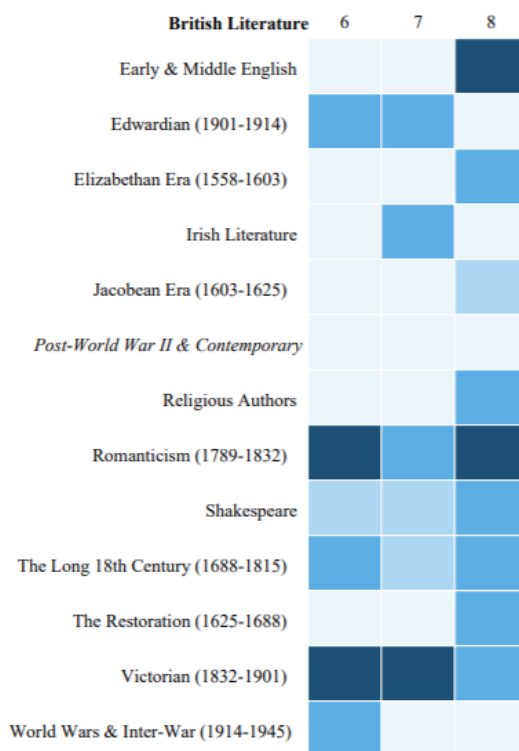


Figure 17. Heat map analysis of the British Literature knowledge domain in Grades 6-8.

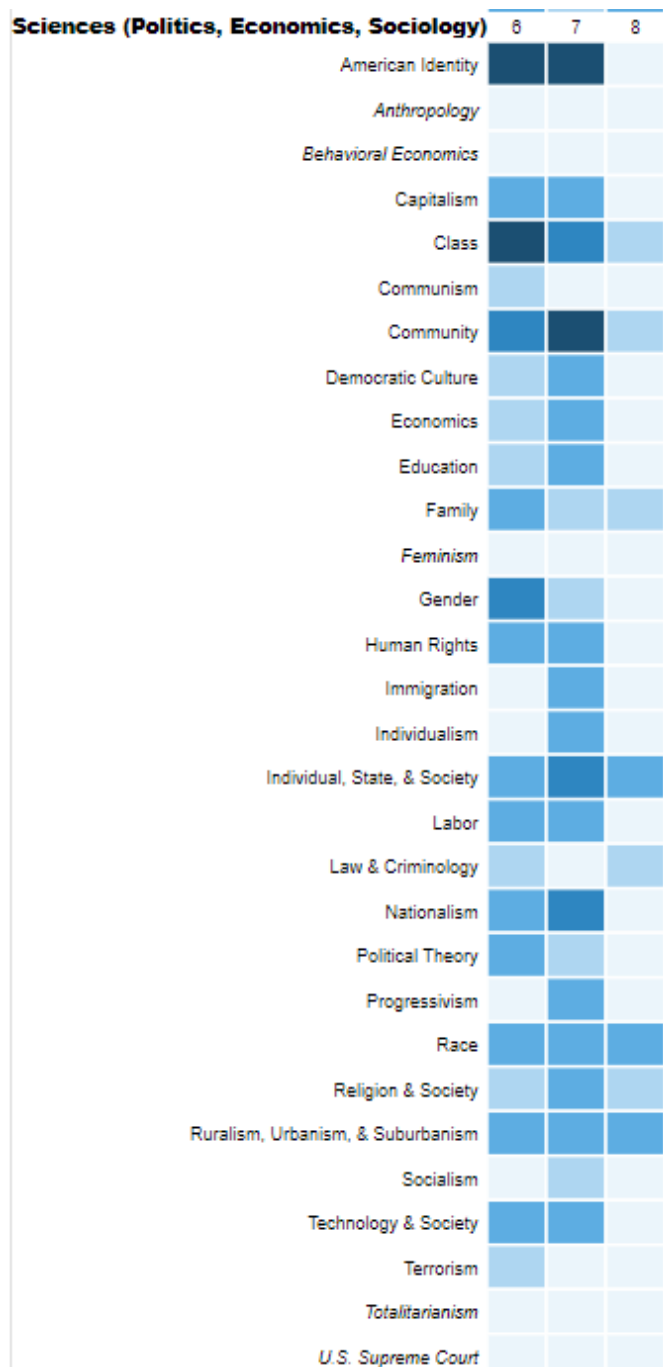


Figure 18. Heat map analysis of the Social Sciences (Politics, Economics, Sociology) knowledge domain in Grades 6-8.

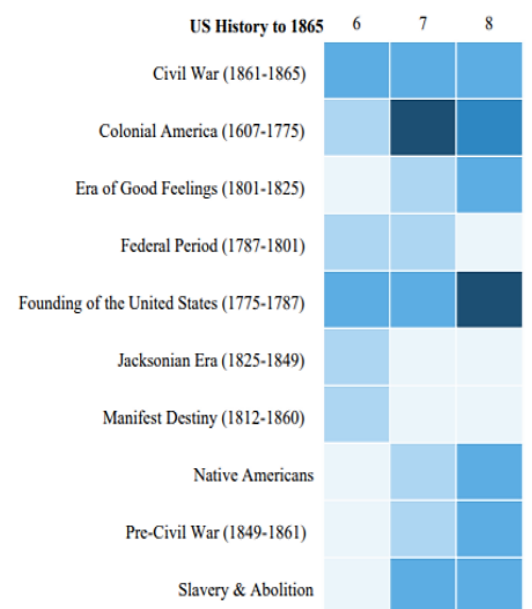


Figure 19. Heat map analysis of the U.S. History to 1865 knowledge domain in Grades 6-8.

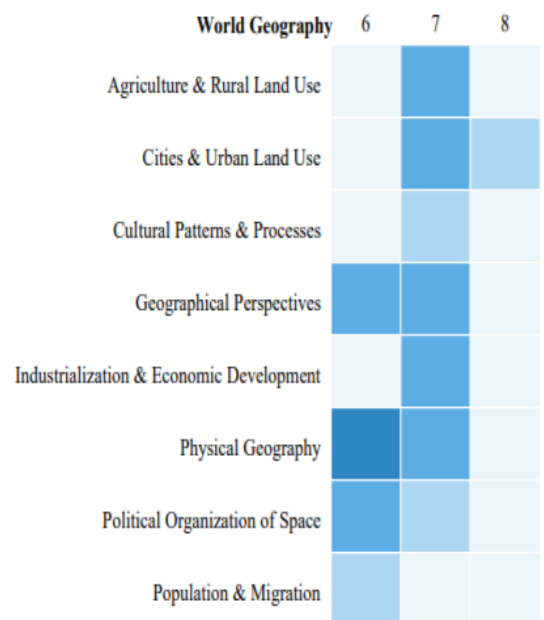


Figure 20. Heat map analysis of the World Geography knowledge domain in Grades 6-8.

Weak Knowledge-Building Domains

The curriculum presents insufficient or weak knowledge building in multiple knowledge domains and topics. Weak knowledge-building domains appear in the heat maps as light blue, indicating no texts address the topic. We do not perform prevalence analysis on weak domains because there is not enough data to be meaningful.

Specifically, 15 of 22 knowledge domains appear weak. These include: Diverse & Cultural Responsiveness, Global Literature, Linguistics & Language, Literary Genres, Mathematics, Media, Music, Art & Architecture, Philosophy Proper, Physical Sciences, Religion, Technology, U.S. Geography, U.S. History Since 1865, World History Since 1600, and World History to 1600. Moreover, three knowledge domains—Linguistics & Language, Mathematics, and Media—shows two texts or less that address any topic within Grades 6-8. Text absence may reflect curricular progression decisions and other factors, but significant gaps may be worth examining.

Apart from these overall weak domains, all other knowledge domains display specific topical weaknesses. Some examples include: Post-World War II & Contemporary in British Literature (Figure 17); Anthropology and Feminism in Social Sciences (Politics, Economics, Sociology) (Figure 18); Asian American Experience, Immigrant Experience, Latinx & Hispanic Experience, and LGBTQIA+ in Diverse & Cultural Responsiveness (Figure 21); Dystopian and Satire in Literary Genres (Figure 24); Buddhism and Hinduism in Religion (Figure 30); Cold War (1947-1991) and Post-9/11 & Current Events in U.S. History Since 1865 (Figure 33); and Africa, Egypt, and Pre-Columbian South America in World History to 1600 (Figure 35).

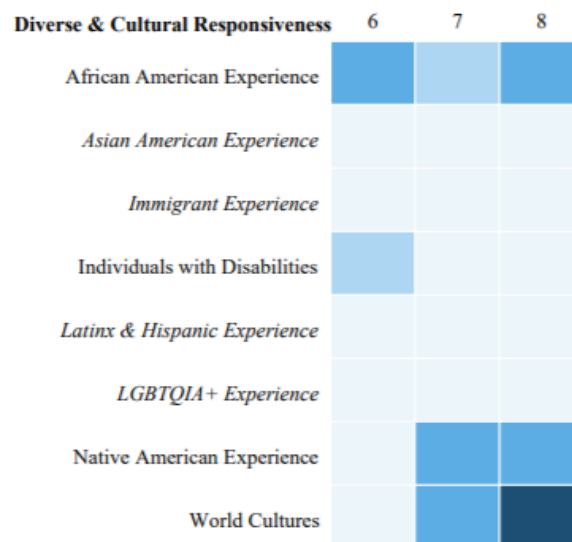


Figure 21. Heat map analysis of the Diverse & Cultural Responsiveness knowledge domain in Grades 6-8.

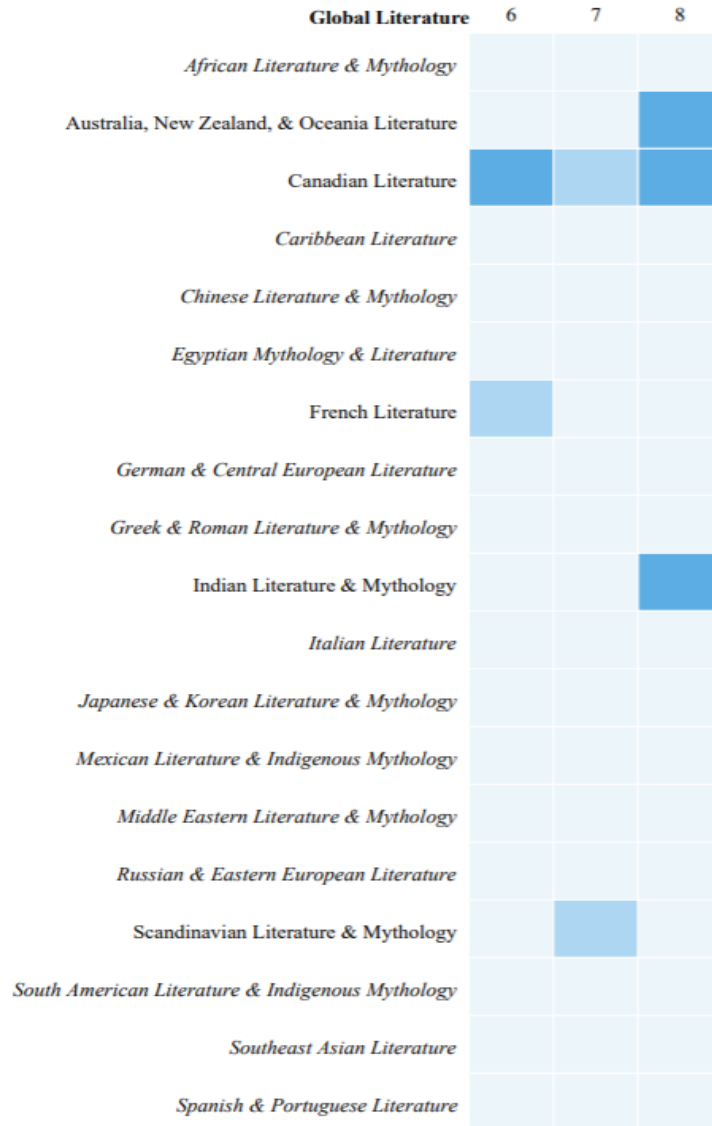


Figure 22. Heat map of the Global Literature knowledge domain in Grades 6-8.

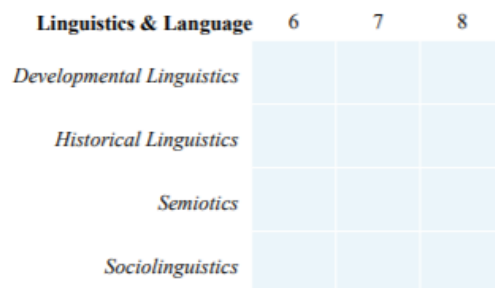


Figure 23. Heat map analysis of the Linguistics & Language knowledge domain in Grades 6-8.

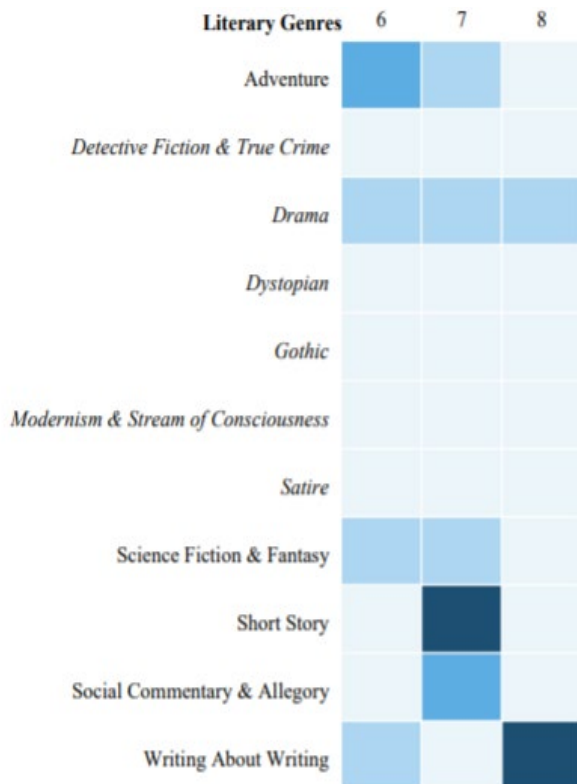


Figure 24. Heat map analysis of the Literary Genres knowledge domain in Grades 6-8.

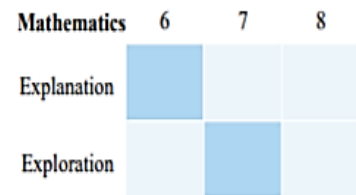


Figure 25. Heat map analysis of the Mathematics knowledge domain in Grades 6-8.

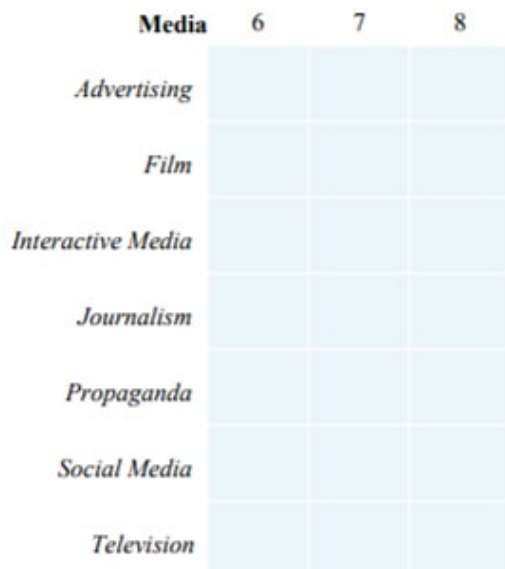


Figure 26. Heat map analysis of the Media knowledge domain in Grades 6-8.

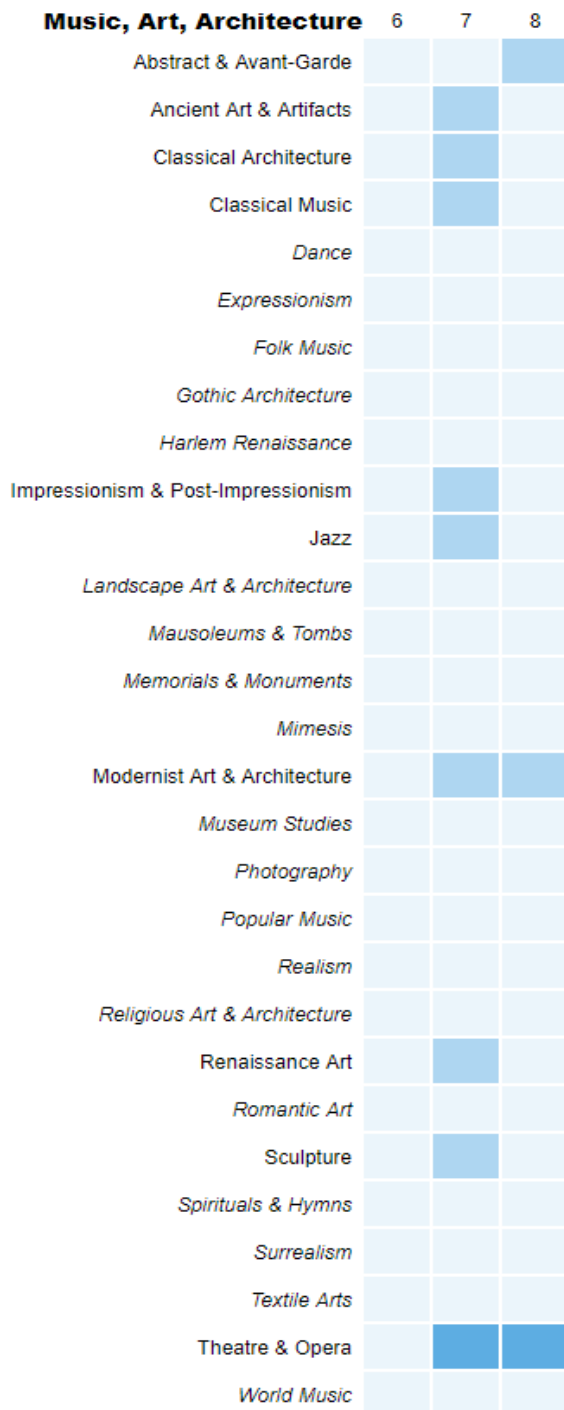


Figure 27. Heat map analysis of the Music, Art, Architecture knowledge domain in Grades 6-8.

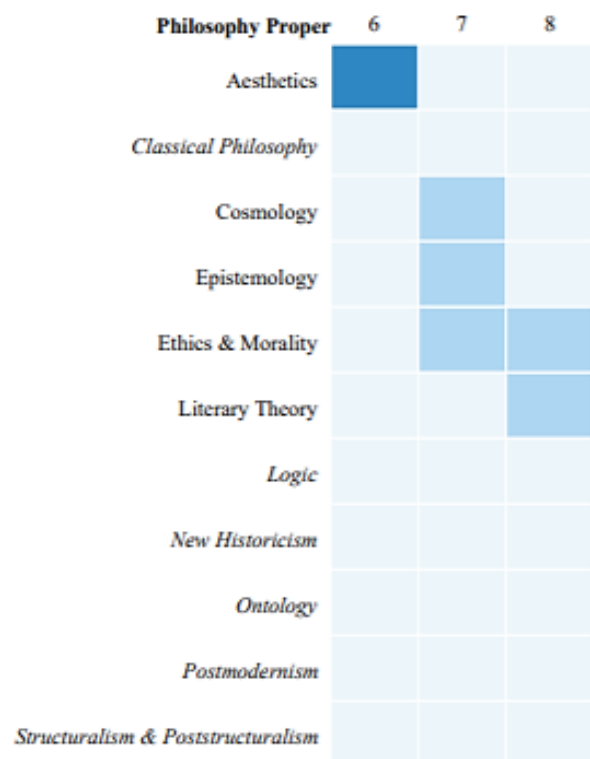


Figure 28. Heat map analysis of the Philosophy Proper knowledge domain in Grades 6-8.

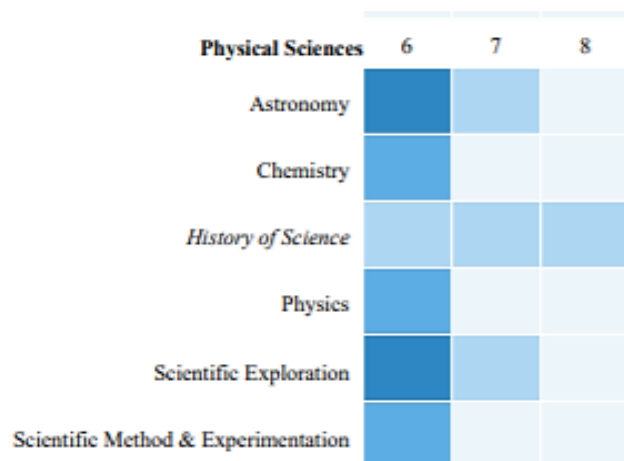


Figure 29. Heat map analysis of the Physical Sciences knowledge domain in Grades 6-8.

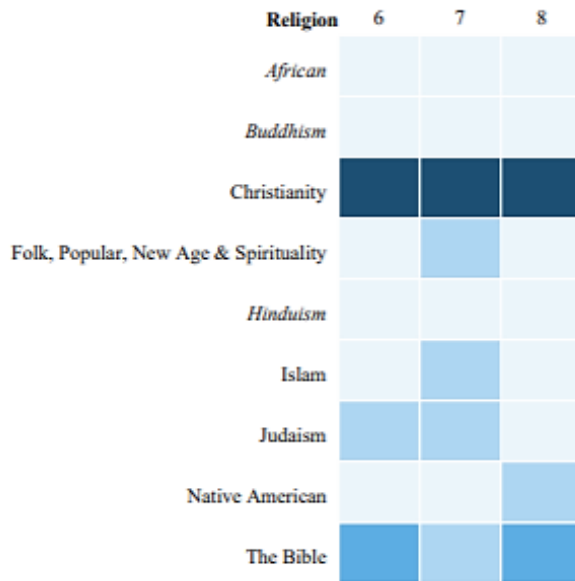


Figure 30. Heat map analysis of the Religion knowledge domain in Grades 6-8.

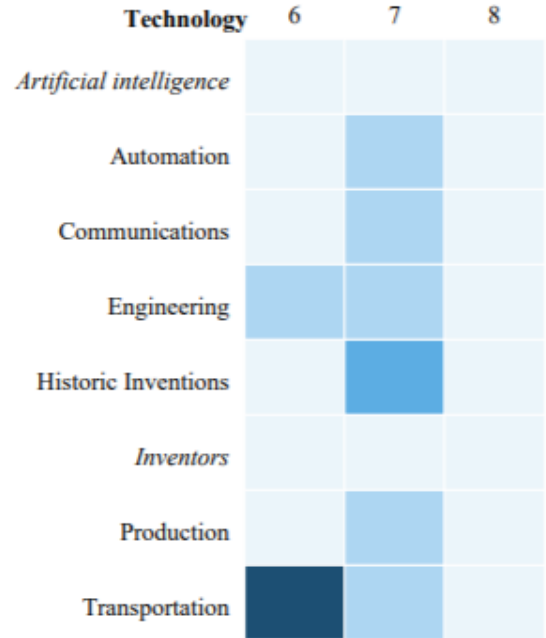


Figure 31. Heat map analysis of the Technology knowledge domain in Grades 6-8.

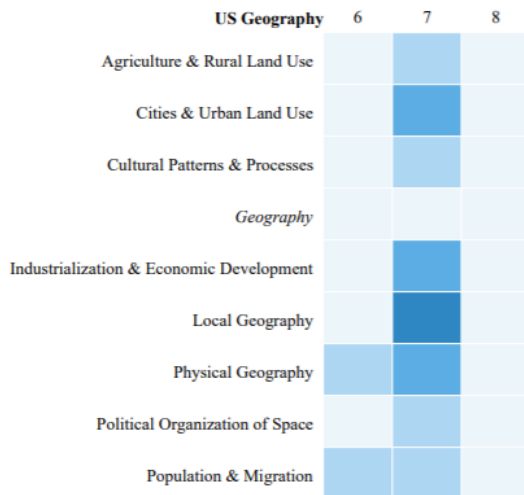


Figure 32. Heat map analysis of the U.S. Geography knowledge domain in Grades 6-8.

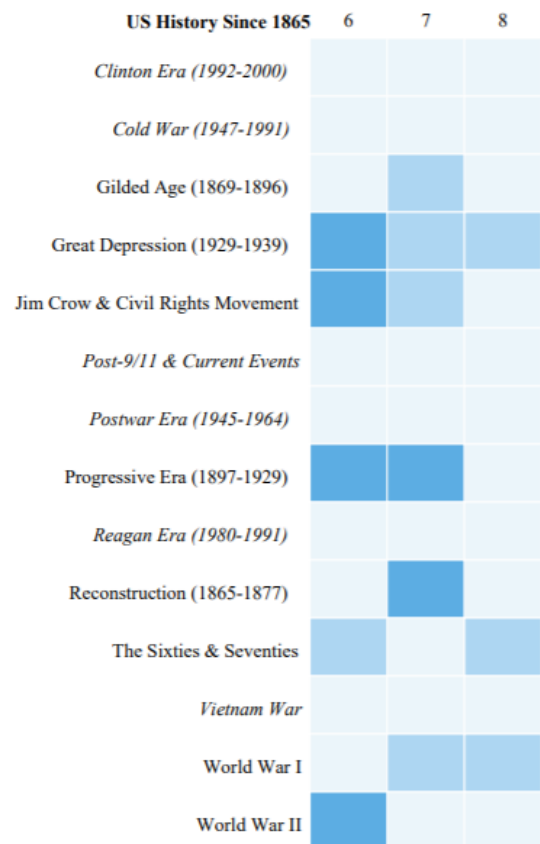


Figure 33. Heat map analysis of U.S. History Since 1865 knowledge domain in Grades 6-8.

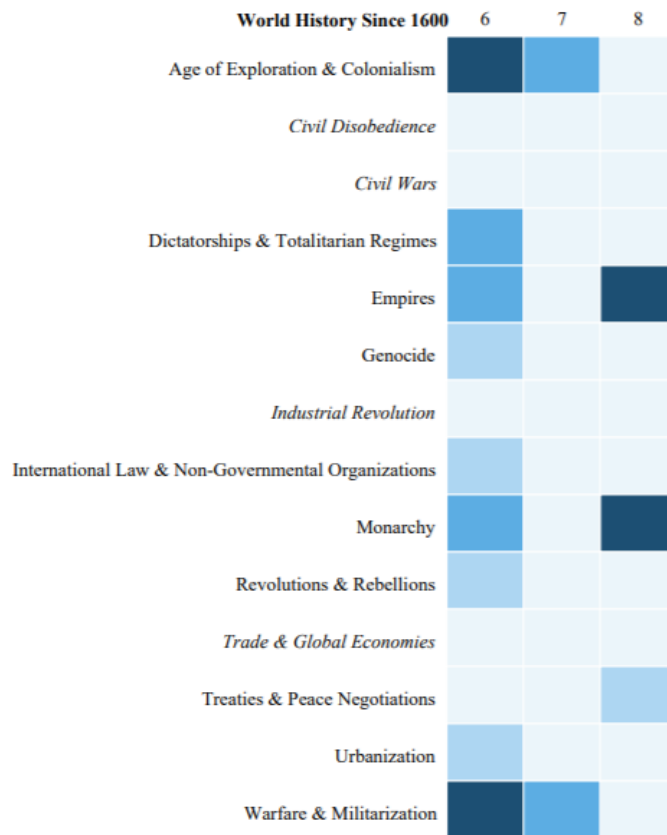


Figure 34. Heat map analysis of World History Since 1600 knowledge domain in Grades 6-8.

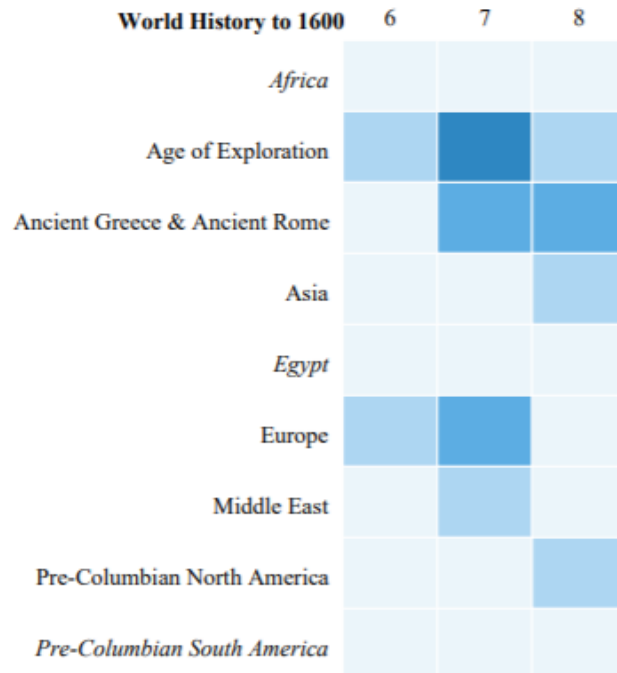


Figure 35. Heat map analysis of World History to 1600 knowledge domain in Grades 6-8.

LEARN MORE

This report is one of twelve ELA Knowledge Map™ reports released in Winter 2022 by the Johns Hopkins Institute for Education Policy. The release of these reports was accompanied by a Findings Summary, outlining the overarching themes across all ELA curricula analyzed. View the other ELA 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](https://edpolicy.education.jhu.edu) 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 Living Books Curriculum

[Living Books Curriculum](https://livingbookscurriculum.com) is a K-8 Christian homeschooling curriculum. It was inspired by the works of English educator Charlotte Mason. Living Books Curriculum offers homeschooling parents Teaching Guides, Subject Guides, and Classic Living Books, and support in the process of educating children at home.

ⁱ Reid Smith et al., "[The Role of Background Knowledge in Reading Comprehension: A Critical Review](#)," *Reading Psychology* 42, no. 3 (April 3, 2021): 214–40). Sonia Q. Cabell and Hyejin Hwang, "Building Content Knowledge to Boost Comprehension in the Primary Grades," *Reading Research Quarterly* 55, no. S1 (2020): S99–107, <https://ila.onlinelibrary.wiley.com/doi/full/10.1002/rrq.338> and also Kathryn S. McCarthy and Danielle S. McNamara, "The Multidimensional Knowledge in Text Comprehension Framework," *Educational Psychologist* 56, no. 3 (July 3, 2021): 196–214, <https://doi.org/10.1080/00461520.2021.1872379>.

ⁱⁱ "Standards aligned" generally refers to the Common Core State Standards.



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