



## Proposal for New High School Curriculum: Chemistry and Honors Chem

### Summary:

This proposal introduces a new high school curriculum for Chemistry and Honors Chem by CK-12 Foundation called *CK-12 Chemistry*, a free, online resource covering core chemistry concepts aligned to both Ohio and Next Gen Science Standards. Aimed at grades 10-12, this Chemistry course covers basic chemistry topics such as matter, atomic structure, the periodic table, states of matter, thermochemistry, chemical reactions, biochemistry, entropy, and more. Honors Chem enriches these topics with increased rigor and more challenging expectations. This resource can be adapted to differentiate material for Honors Chemistry as well. *CK-12 Chemistry* will allow teachers to adequately prepare students for the appropriate level of rigor that will be required of them in their future career and/or college pathway.

### Rationale:

As education evolves, it is crucial to offer courses and provide students resources that align with modern academic and workforce demands. Our current textbook is 19 years old, and teachers are supplementing between 50-75% of course content from other sources. The proposed curriculum is kept up-to-date because it is an online resource, with the last full revision in December of 2024 and the last modification in February of 2025. Anchored by a commitment to provide free access to high-quality, customizable educational content and technology tools to under-resourced teachers and students, *CK-12 Chemistry* aims to maximize student learning through multiple modalities suited to different learning styles and readiness levels.

### Textbook of Choice:

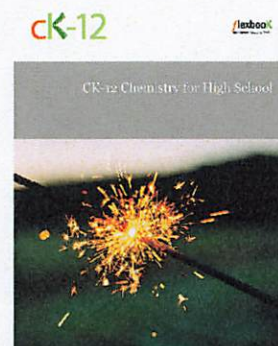
The Science team has selected *CK-12 Chemistry for High School FlexBook*. In their professional opinion, this text outperformed others they considered in disciplinary content, ease of use for teachers, and accessibility for a wide range of learners. *CK-12* scored 42/42 on our criterion referenced rubric.

The team also considered McGraw Hill's *Inspire Chemistry* text. While it is a quality option, scoring 37/42 on our criterion referenced rubric, it would incur a much larger cost than the previous option. Additionally, students tend not to read print textbooks.

Lastly, Houghton Mifflin Harcourt's *Science Dimensions: Chemistry* fell to the bottom on our list of contenders. This resource contains a heavy focus on engineering, minimally covers Ohio's standards, and would need largely supplemented with other resources. It scored only 15/42 on the criterion referenced rubric.

### Key Features of *CK-12 Chemistry*:

- Teachers really like the interactive and customizable digital nature of this text including 26 chapters and a digital tutor.





- The fact that it is online reassures us that it will be regularly updated, not becoming quickly outdated as a print textbook would.
- *CK-12 Chemistry* comes with interactive chemistry simulations, an interactive diagramming tool, real-world examples, and quality videos.

**Implementation & Costs:**

- Materials, Resources, and Professional Development: Estimated Total Cost: **\$0**
- Because this curriculum is produced by a grant-funded nonprofit organization, there is no cost for the program, which can be found at [CK-12 Chemistry](#)

**Conclusion:**

By adopting CK-12's Chemistry Curriculum, we will ensure students have high-quality curriculum that is relevant and presented in a relatable way for high school students. We respectfully seek the Board's approval to implement *CK-12 Chemistry* in the upcoming academic year.