



Indiana Department of Education

Dr. Katie Jenner, Secretary of Education

K-12 Science Curriculum Map Audit Tool

The Indiana Department of Education (IDOE) recognizes that teachers are currently using robust, research-based best practices in science lessons and units throughout the year. Updated science standards have created the need to audit current practices and determine what next steps are needed to align to the three-dimensional instructional approach for Indiana's new science standards. IDOE has developed this curriculum auditing tool to allow teachers to examine their current science lessons and units to determine if or how they already align with newly adopted science standards. When used in conjunction with the [Survey of Teacher Understanding](#), instructional leadership teams can identify areas in need of support while customizing an implementation timeline leading up to the assessment window in spring 2024. An example of this implementation timeline can be found in Appendix A.

Science Standard	What activity/unit do you already have that aligns with this standard?	How do you already incorporate the Disciplinary Core Idea?	How do you already incorporate the Performance Expectation?	How do you incorporate Science and Engineering Practices?	What do you need to add?	How will you address the associated Crosscutting Concept?	What could you add?



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Appendix A: Curriculum Audit Tool Example of Use

Scenario: The new science standards are released, and a first grade team of educators is excited to get started! Each teacher has individually completed the New Framework of Science Education Survey of Teacher Understanding. The team collaborated to identify lessons and units of study from their current curriculum map that align with performance expectations, disciplinary core ideas, crosscutting concepts, and science and engineering practices from the new science standards.

Results of Individual Teacher Understanding Surveys:

Teacher 1

Science and Engineering Practices 21 Total Points	Disciplinary Core Ideas 9 Total Points	Cross Cutting Concepts 18 Total Points	Three Dimensions 9 Total Points	Total Score:
15	9	12	3	39

Teacher 2

Science and Engineering Practices 21 Total Points	Disciplinary Core Ideas 9 Total Points	Cross Cutting Concepts 18 Total Points	Three Dimensions 9 Total Points	Total Score:
12	9	9	3	33

Excerpt from Curriculum Audit Tool:



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Science Standard	What activity/unit do you already have that aligns with this standard?	How do you already incorporate the Disciplinary Core Idea?	How do you already incorporate the Performance Expectation?	How do you incorporate Science and Engineering Practices?	What do you need to add?	How will you address the associated Crosscutting Concept?	What could you add?
1-PS4-1. Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.	Mystery Science - How Do They Make Silly Sounds in Cartoons?	Give students opportunities to make different sounds using body parts and other tools to demonstrate DCI.	Provide tools for students to use to make different sounds for various purposes.				

Possible Action Steps:

- Since survey results indicate that both teachers have opportunities to learn more about crosscutting concepts and science and engineering practices, investigating resources and participating in professional development may be a necessary part of implementing the new science standards fully.
- The curriculum map audit shows these teachers already have a strong starting point for 1-PS4-1. Adding science and engineering practices and crosscutting concepts to the previous lesson will align with the new standards.
- A goal for professional development and PLC work could be to improve in identifying opportunities to include crosscutting concepts for each unit the team agrees to try out in the 2022-2023 implementation year.