INDIANA DEPARTMENT of EDUCATION

2024 INDIANA CONTENT CONNECTORS

INTEGRATED STEM

GRADE 6

in.gov/doe

Indiana Content Connectors Context and Purpose

Introduction

The Indiana Content Connectors for Grade 6 Integrated STEM are the result of a process designed to identify, evaluate, synthesize, and create high-quality learning expectations for Indiana students with significant cognitive disabilities.

The Indiana Department of Education (IDOE) convened stakeholder committees to review proposed revisions to Indiana's Alternative Standards, known as content connectors. The content connectors are designed to measure the knowledge and skills of students with the most significant cognitive disabilities and are assessed with the state's alternate assessment. The content connectors are designed to ensure that all Indiana students in this population are prepared with essential knowledge and skills needed to access employment, enrollment, or enlistment leading to service.

What are the Content Connectors and how should they be used?

The Indiana Content Connectors are designed to help educators, parents, students, and community members understand the necessary content for each grade level, and within each content area domain, to access employment, enrollment, or enlistment leading to service. These content connectors should form the basis for strong core instruction for all students at each grade level and content area. The content connectors identify the minimum academic content or skills to which Indiana students need access in order to be prepared for success after graduation, but they are not an exhaustive list.

While the Indiana Content Connectors establish key expectations for knowledge and skills and should be used as the basis for curriculum, the content connectors by themselves do not constitute a curriculum. It is the responsibility of the local school corporation to select and formally adopt curricular tools, including textbooks and any other supplementary materials, that align with Indiana Content Connectors. Additionally, corporation and school leaders should consider the appropriate instructional sequence of the content connectors as well as the length of time needed to teach each one. Every content connector has a unique place in the continuum of learning, but each content connector will not require the same amount of time and attention. A deep understanding of the vertical articulation of the standards will enable educators to make the best instructional decisions. These content connectors must also be complemented by robust, evidence-based instructional practices to support overall student development. By utilizing strategic and intentional instructional practices, other areas such as STEM and employability skills can be integrated with the content connectors.

Acknowledgments

IDOE appreciates the time, dedication, and expertise offered by Indiana's K-12 general and special educators, higher education professors, representatives from business and industry, families, and other stakeholders who contributed to the development of the Indiana Content Connectors. We wish to specially acknowledge the committee members, as well as participants in the public comment period, who dedicated many hours to the review and evaluation of these content connectors designed to prepare Indiana students for success after graduation.

Grade 6 Integrated STEM

Indiana Academic Standards	Content Connectors
Communication and Collaboration	
6.CC.1: Collect and document evidence to share information with others in multiple media forms.	**6.CC.1a:** Collect one piece of evidence to share information with others in multiple media forms.
6.CC.2: Communicate the solution(s) of a problem/analysis either orally, visually, or in writing, including process steps, findings, or conclusions.	**6.CC.2a:** Communicate the solution to a problem by explaining steps in a process, a key finding, or a conclusion.
6.CC.3: Identify, implement, and assign roles and responsibilities to collaborate in various group settings (i.e., online, onsite and/or hybrid) and situations.	**6.CC.3a:** Identify and implement the responsibilities for a role while working in various group settings (i.e., online, onsite and/or hybrid).
6.CC.4: Communicate specific constraints and criteria established for an investigation.	**6.CC.4a:** Communicate a constraint (e.g., "We can only use the tape and string provided.") or criteria (e.g., "Our crane has to lift 5 paperclips.") for an investigation.
6.CC.5: Evaluate competing solutions or arguments in a systematic way based on qualitative and/or quantitative evidence.	**6.CC.5a:** Identify the argument that is supported by the most evidence from the investigation.
Data Analysis and Measurement	
6.DM.1: Use multiple systems of measurement (i.e., standard and metric) and data sets (e.g., plots, tables, graphs, charts) defined in grade level content standards to analyze real-world scenarios and the mathematical relationships represented by the data.	**6.DM.1a:** Use two or more provided sources of data (e.g., measurement, data sets, plots, tables, graphs, charts), defined in grade level content standards, to describe real-world scenarios or the mathematical relationships represented by the data.
6.DM.2: Construct visual representations (e.g., bar graphs, charts) to determine patterns or statistical analysis (e.g., mean, median) defined in grade level content standards.	**6.DM.2a:** Determine patterns in visual representations defined in grade level content standards (e.g., bar graphs, charts).

6.DM.3: Use approximations and evaluate reasonableness of observations, results, and solutions throughout processes.	**6.DM.3a:** Use approximations to categorize observations, results, or solutions throughout processes as reasonable or unreasonable, and justify your selection when applicable.
6.DM.4: Choose data sets and analysis methods to support the inquiry process.	**6.DM.4a:** Use data sets and analysis methods to support the inquiry process.
Inquiry-Based Approaches and Problem Solving	
6.IPS.1: Conduct or extend an original investigation, analyze results, iterate, and revise to improve the design.	**6.IPS.1a:** Conduct or extend an investigation, analyze (e.g., finding relationships between data) the results and suggest one way the design of the investigation could be improved upon, iterate and revise to improve the design.
6.IPS.2: Determine one or more viable solutions using data and information to resolve a scenario given criteria and constraints.	**6.IPS.2a:** Given both a specific set of criteria and constraints, find one or more viable solutions to solve a problem.
6.IPS.3: Integrate processes and methodologies across disciplines based on content specific standards to incorporate multiple sources of evidence to support defining a solution.	**6.IPS.3a:** Use evidence and/or processes from more than one academic discipline to generate a solution to a proposed problem.
Applications and Modeling	
6.AM.1: Interpret and evaluate relationships among sets of data (e.g., distance-time graph).	**6.AM.1a:** Identify the dependent and independent variable in a data set on a graph (e.g., which data belongs on the x-axis and which data belongs on the y-axis).
6.AM.2: Use coordinate planes or number lines to examine information and represent solutions.	**6.AM.2a:** Select data from a number line containing only whole numbers or a dot/line plot to find a solution to a given problem.
6.AM.3: Use models to compare and contrast different systems and explain the factors that influence them.	**6.AM.3a:** Use models to compare or contrast different systems.
6.AM.4: Use and revise models to describe, test, and predict phenomena or solutions.	**6.AM.4a:** Use models to describe phenomena or solutions.

Information and Digital Literacy	
6.IDL.1: Identify and evaluate the impact of technology when selecting tools to solve a problem in order to determine the most effective solution.	**6.IDL.1a:** Identify the effects of technology when choosing tools for problem-solving and finding the best solution.
6.IDL.2: Review and compile information from multiple sources to solve a problem.	**6.IDL.2a:** Review and compile information from multiple sources to solve a problem.
6.IDL.3: Describe how solutions or technologies are adapted to meet the changing needs and wants of individuals or communities.	**6.IDL.3a:** Describe how solutions or technologies are adapted to meet the changing needs and wants of individuals or communities.