INDIANA
DEPARTMENT *of*
EDUCATION

2024 INDIANA CONTENT CONNECTORS
COMPUTER SCIENCE

GRADES K-2

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Indiana Content Connectors Context and Purpose

Introduction

The Indiana Content Connectors for Grades K-2 Computer Science 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

Kindergarten – Grade 2 Computer Science

Standards and content connectors identified as essential for mastery by the end of the grade level are indicated with gray shading and an "E."

Empty boxes are placeholders to preserve alignment of vertically-articulated standards.

Indiana Academic Standards	Content Connectors
Data & Information	
K-2.DI.1: Identify and collect data using digital tools (e.g., take pictures of all blue items, create a document with things that start with "a").	**K-2.DI.1a:** Identify and collect data using concrete objects or digital tools (e.g., take pictures of or sort all blue math manipulatives).
K-2.DI.2: Define stored information as data and when appropriate, copy, search, retrieve, modify, and delete it.	**K-2.DI.2a:** Describe information stored on a digital device as "data".
K-2.DI.3: Model that data can be stored and manipulated using numbers or symbols to represent information.	**K-2.DI.3a:** Represent data from everyday activities with numbers, symbols, or other variables.
K-2.DI.4: Organize and present data in different visual formats such as charts, graphs, and symbols, and identify and describe patterns to make predictions. (E)	**K-2.DI.4a:** Identify patterns in visual representations of data such as charts, graphs, and symbols. (E)
Computing Devices & Systems	
K-2.CD.1: Use appropriate terminology in identifying and describing computer hardware. (E)	**K-2.CD.1a:** Use appropriate terminology (e.g., computer, screen, keyboard) in identifying and describing computer hardware. (E)
K-2.CD.2: Describe and troubleshoot basic hardware and software problems using appropriate terminology.	**K-2.CD.2a:** Explain when there is a problem with familiar technology and match a provided potential solution.
K-2.CD.3: Select and operate appropriate software to perform a variety of tasks and recognize that users have different needs and preferences for the technology they use.	**K-2.CD.3a:** Operate software to perform a specific task.

Programs & Algorithms	
K-2.PA.1: Breakdown and plan the order of the steps needed for a desired outcome to accomplish the goal. (E)	**K-2.PA.1a:** Sequence provided steps to complete a familiar or simple task. (E)
K-2.PA.2: Using age-appropriate vocabulary, explain steps taken and choices made to improve the design of a sequence.	**K-2.PA.2a:** Explain a way to improve a step of a provided familiar process.
K-2.PA.3: Develop programs with sequences and simple loops to express ideas or address a problem. (E)	**K-2.PA.3a**: Follow the steps in a process with a simple loop.
K-2.PA.4: Identify and fix (debug) errors in sequences and simple loops.	**K-2.PA.4a:** Identify an error in a provided sequence, then find a potential solution to the error.
K-2.PA.5: Model daily processes by creating and following algorithms (i.e., sets of step-by-step instructions) to complete tasks. (E)	**K-2.PA.5a:** Follow a three-step set of instructions to complete a task and identify the sequence of steps as an algorithm. (E)
K-2.PA.6: Give attribution when using the ideas and creations of others while developing programs.	**K-2.PA.6a:** Differentiate between work you create and work created by another person. (E)
Networking & the Internet	
K-2.NI.1: Explain what passwords are, why they are used, and why it is important to develop strong passwords to protect devices and information. (E)	**K-2.NI.1a:** Define what a password is and describe its purpose. (E)
Impact & Culture	
K-2.IC.1: Compare and contrast the effects of technology on communities and social interactions.	**K-2.IC.1a:** Compare and contrast the effects of technology on communities and social interactions.
K-2.IC.2: Identify expected behaviors for working responsibly with others online. (E)	**K-2.IC.2a**: Identify expected behaviors for working responsibly with others online. (E)
K-2.IC.3: Describe how to keep login information private and log off of devices appropriately.	**K-2.IC.3a:** Describe why login information should not be shared and model logging off of a device.