High Quality Instructional Material Selection in Technology and Computer Science

Department of Education & Workforce

Ohio Department of Education and Workforce Priorities

- Literacy
- Learning Acceleration
- Workforce Readiness
- Student Wellness

Purpose:

- To understand how Ohio's High-Quality Instructional Materials Rubric for Computer Science and Technology is designed to support schools and districts in the review and selection process.
- To learn how to access the rubric, how to leverage it, and how to frame them alongside local criteria.
- To understand how to select high-quality instructional materials in Technology and Computer Science.

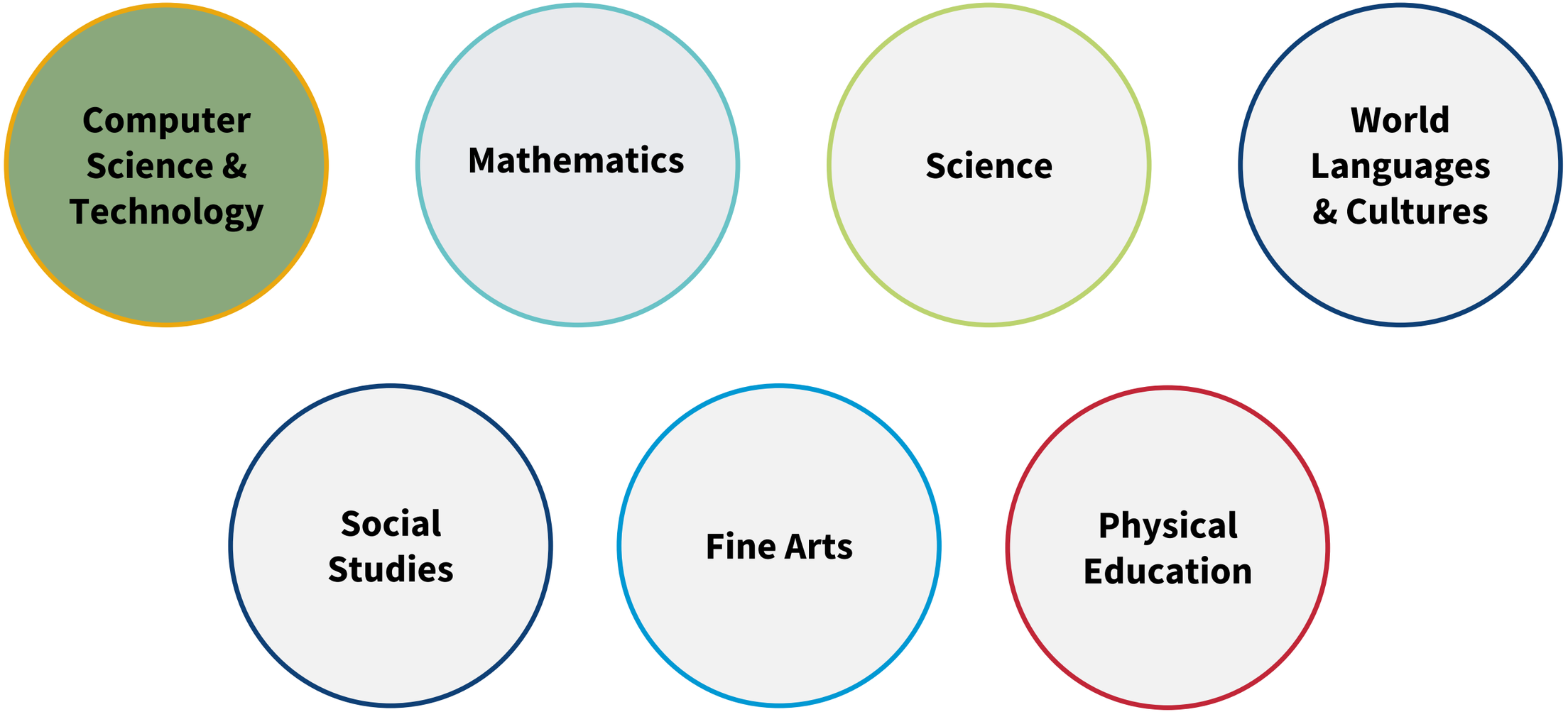
Where to find Ohio's HQIM Rubrics

- Ohio Materials Matter webpage

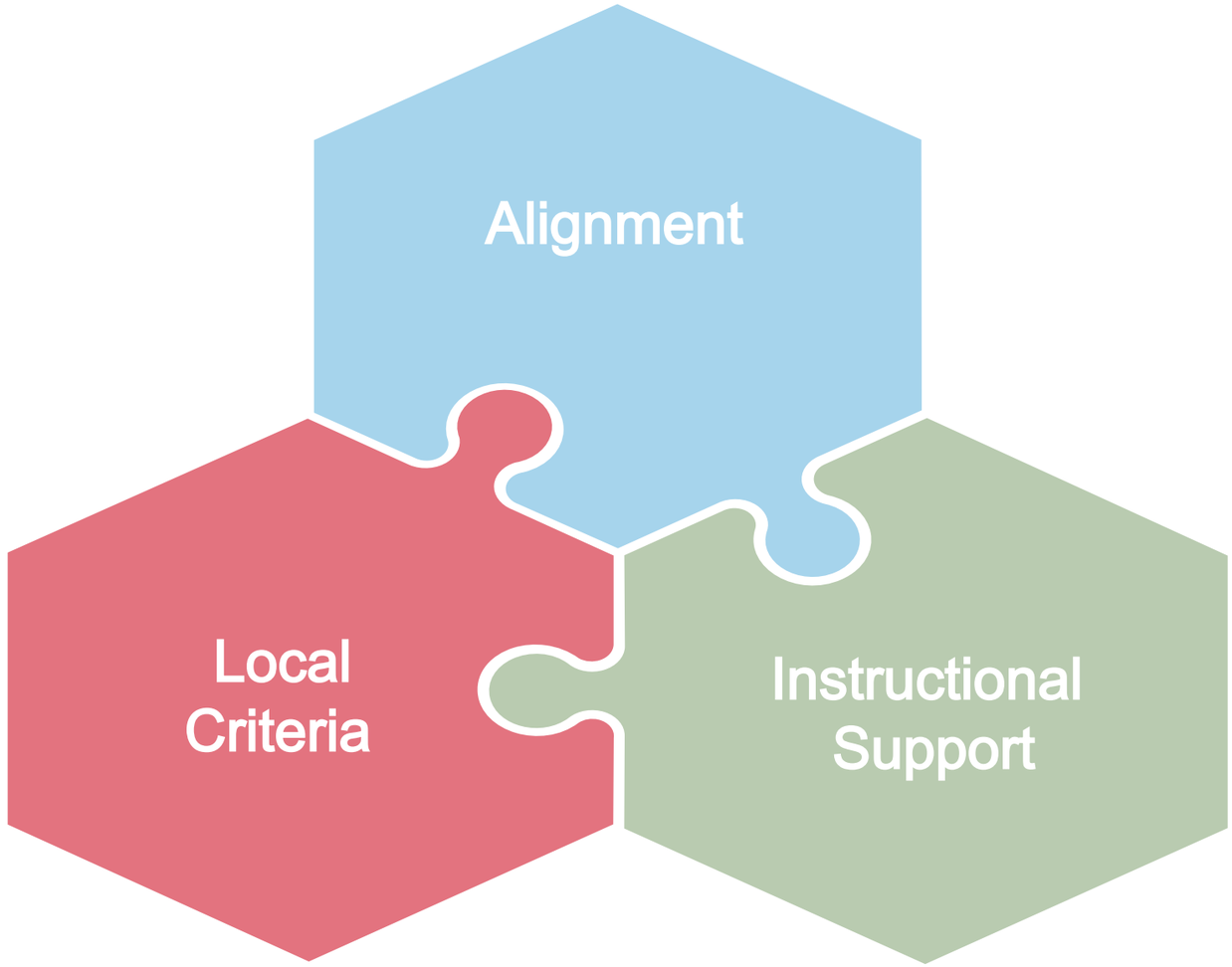
Ohio Materials Matter Website

OR

Ohio's HQIM Content Area Rubrics



Attributes of High-Quality Instructional Materials

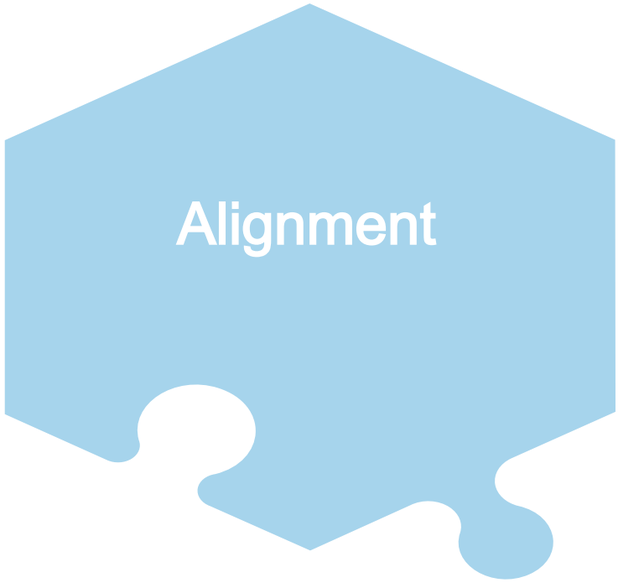


Local Criteria

- Materials selection should be grounded in a school or district's unique context.
  - Look to meet the specific needs of the community, including families, students, and teachers.
  - Collect, review, and analyze local data.
  - Work toward making teaching and learning more reflective of learners' experiences and assets.

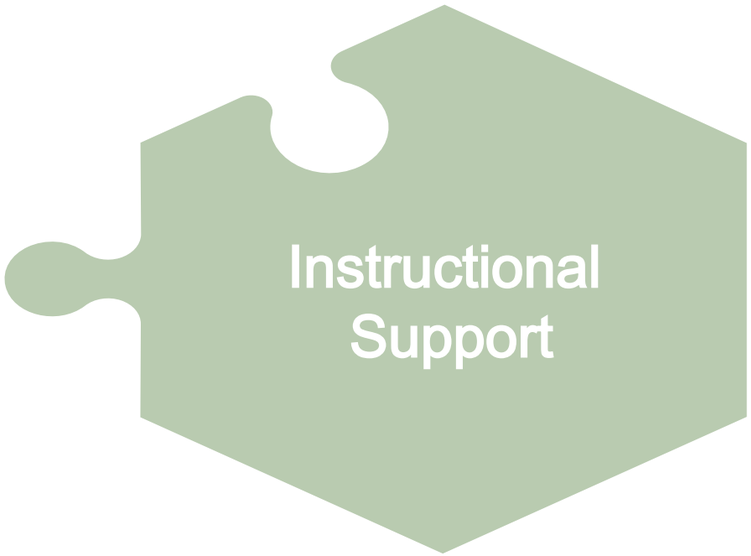
Alignment: Subject-Specific Markers of Quality

Computer Science / Technology	Fine Arts	Mathematics	Physical Education
• Alignment to Learning Standards • Technology Integration	• Alignment to Learning Standards • Artistic Processes	• Alignment to Learning Standards • Rigor • Mathematical Practices	• Alignment to Learning Standards • Rigor • Coherence
Science	**Social Studies**	**World Languages & Cultures**	
• Nature of Science • Alignment to Learning Standards • Scientific Discourse • Phenomena and Problem Driven Instruction	• Alignment to Learning Standards • Social Studies Practices and Disciplinary Literacy	• Alignment to Learning Standards • Second Language Acquisition • Authentic Resources	



Instructional Support

- Examines additional indicators of quality that demonstrate the usability of the materials to support implementation.
  - Assessment
  - Student Supports
  - Teacher Supports



HQIM Rubric Structure

- Gateways
- Criteria
- Indicators

GATEWAY SYSTEM

The rubric is designed to allow reviewers to determine a threshold for quality for each Gateway. If instructional materials do not meet the thresholds for Meets Expectations or Partially Meets Expectations for a Gateway, reviewers are prompted to not move forward with reviewing the other Gateways.

- Gateway 1: Alignment (advance to Gateway 2 only if the instructional materials Meet or Partially Meet Expectations for Gateway 1)
- Gateway 2: Instructional Support

Review Summary	Criteria	Score	Rating
Alignment Criteria	1.1 Alignment to Learning Standards	_/6	
	1.2 Technology Integration	_/10	
	Gateway 1 Sub-Total	**_/16**	
Instructional Supports Criteria	2.1 Assessment	_/ 6	
	2.2 Student Supports	_/10	
	2.3 Teacher Supports	_/12	
	Gateway 2 Sub-Total	**_/28**	
Overall Rating		**Total Score**	**Final Rating**
Meets Expectations *Materials meet expectations for all criteria.* **Partially Meets Expectations** *Materials meet or partially meet expectations for all criteria.* **Does Not Meet Expectations** *Any gateway that does not meet the criteria.*		**_/44**	

Criteria and Indicators

Gateways

Criteria

Indicators

Gateway 1: Alignment

Gateway 1 looks at alignment with the Ohio Learning Standards and additional subject-specific indicators of quality.

CRITERION 1.1: ALIGNMENT TO LEARNING STANDARDS Materials address grade-level content to meet the intent of Ohio's Learning Standards in Computer Science and Technology.			
Indicators	**Guiding Questions**	**Look for Evidence of How the Materials:**	**Evidence**
1.1a. Materials are aligned to Ohio's Learning Standards for Computer Science and Technology at the appropriate grade or course level. **Scoring** 0 | 1 | 2	• Does each lesson show the specific standards that are addressed in the materials? • Have all aspects or parts of the standards been addressed? • Does the lesson thoroughly address the content of the standards? • Is complexity evident in the materials?	• Address grade-level standards. • Provide opportunities for students to engage in complex thinking and reasoning. • Ensure students reach grade-level proficiency while engaging in Ohio's Learning Standards for Computer Science and Technology.	
1.1b. Materials provide opportunities for interaction with real-world Computer Science and Technology tools and their purposes. **Scoring** 0 | 1 | 2	• Are materials designed so that students and teachers work with engaging, relevant, real-world applications of computer science and technology?	• Focus on contemporary advancements in computer science and technologies. • Provide opportunities for students to learn from relevant case studies that examine real-world scenarios. • Students will explore and conduct an in-depth analysis of contemporary issues, aiming to provide comprehensive insights into current challenges, complexities, and innovative solutions within the field.	

HQIM Rubric Uses for New Materials

- They are used to **inform selection** : HQIM rubrics serve as a guide for selecting instructional materials by providing criteria for evaluation.
- They are useful as **professional learning:** HQIM rubrics identify professional learning needs to enhance educators' ability to support student learning effectively.
- They are used for **stakeholder involvement** : Rubrics facilitate stakeholder involvement in the review process, ensuring diverse perspectives are considered in defining high-quality instructional materials.

Making the Most of Existing Materials

Use the HQIM Rubric to…

- Pinpoint the **strengths** and **gaps** in your current materials
- Develop **guidance tools** and **curricular supports**
- Highlight **areas of need** for **professional learning** opportunities
  - Guidance in key components
  - Filling the gaps in key components
- **Plan** for **professional learning communities**
- **Consider** where/when **supplements** might be needed
- When necessary, guide **design** of instructional materials

Independent Preview

- Look at the Computer Science and Technology Rubric.
  - Think of a material you use for CS and/or Tech instruction. Work through **Gateway 1** with this material in mind.
  - As you work through it, jot down any observations or questions you may have.

Rubric Usage Share-Out

What did you observe?

What questions do you have?

How might the rubric be useful in your material selection?

What challenges might arise in selecting HQIM in CS and Tech?

Resources and Support

- Ohio Materials Matter -The Ohio Department of Education & Workforce believes in providing support for building leaders and teachers to locally review, select , and implement high-quality instructional materials.
- ISTE Teacher Ready Evaluation Tool – The Teacher Ready evaluation tool is designed to assist edtech decision-makers, educators, and parents in deciding which edtech products will best serve them and their students in the classroom and at home.
- ISTE Seal **-** A product certification that signals edtech products that are exceptionally well-built.
- EdTech Index - A one-stop shop for information about edtech products, including certifications and other market validators of quality.
- Quality Instructional Materials From INFOHIO

Join Us Next School Year!

Computer Science and Educational Technology Communities of Practice

- **Description:** A Community of Practice (CoP) is a group of individuals who share a common interest and a commitment to learning and improving together. They regularly exchange ideas, solve problems, and build knowledge through shared experiences. This session will focus on the establishment and elements of a statewide CoP for technology and computer science educators.
- **Date:** Wednesday, August 13, 2025
- **Time:** 12:00 PM – 1:15 PM
- **Registration Link**

Thank you!

Questions?

InstructionalTechnology@education.ohio.gov

ComputerScience@education.ohio.gov