

Designing Coherent Curriculum - Planning Tool

The purpose of this tool is to provide school- or district-level mathematics leadership teams with questions that support the design of a coherent mathematics curriculum prior to engaging in the process. This is intended to generate additional questions that lead to design and action.

I. Convening a Mathematics Leadership Team (MLT)

A. Recruiting the MLT

1. Who are the trusted members of the mathematics community that you count on for advice and guidance?
2. Do these trusted community members represent the diverse voices of your community (including students) or do you need to work with community groups to find additional candidates?

B. Developing Common Understanding and Agreements

1. Does the MLT possess a common understanding of the school/district's mission and vision? Do they see the clear connections between curriculum design and the mission/vision?
2. Does the MLT possess a shared understanding of the needs and issues related to the mathematics curriculum?
3. Does the MLT possess a shared understanding of key issues and trends in mathematics teaching and learning?
4. Is the MLT able to articulate the strengths and weaknesses of the existing curriculum program? Visit <https://www.mathedleadership.org/ncsm-essential-actions-series/> to access a mathematics program evaluation and reflection tool. (Figure 1.1)

II. Engaging in the Curriculum Design Process

A. PreK-12 (or school grade band) Mathematics Program Drivers

1. What is your mathematics program philosophy?
2. What tenets guide the program?
3. What are the desired teacher practices and intended student learning behaviors that frame the program?
4. What are the grade-level or course goals? How are these goals determined? Who determines which content standards are intended and inform the allocation/pacing of those standards?

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B. Designing or Securing Resources to Support Implementation

1. What is our process for reviewing research-affirmed curriculum programs?
2. What additional instructional resources are available to support the implementation of the curriculum?
3. How will we package the curriculum so that teachers, students, and families find it easy to access and understand?
4. What is our plan for teaching the new curriculum to all stakeholders?
5. What collaborative team structures will be put into place to ensure that teachers implement the curriculum with consistency?

III. Evaluating the Curriculum

A. Evaluating the Written Curriculum

1. Which tools will we use to evaluate the coherence of the new curriculum? How often will we review the curriculum?
2. How will we ensure that the curriculum is culturally relevant and promotes the experiences of all who have contributed to the development of mathematics (so that students see themselves reflected in the subject area)?

B. Evaluating the Taught Curriculum

1. What data will be collected and how often will it be reviewed?
2. How will we design a system of formal and informal observation that provides formative feedback to teachers AND provides evidence of fidelity to leaders?

C. Evaluating the Assessed Curriculum

1. What mathematics assessment instruments will we use to measure student progress and growth?
2. What data will leaders use to inform the need for curriculum revision? How will coherence gaps be identified?

 Visit <https://www.mathedleadership.org/coaching-corner/> to download a free reproducible version of this resource.