



Standards-in-Action 2.0 State-Based Curriculum Review

Introducing the Participant Workbook and Model Curriculum for Mathematics

2022



Welcome!



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Today's Agenda

- Icebreaker
- Introduction to the Participant Workbook
- Orientation to the Model Curriculum
- Next Steps



Meeting Norms and Expectations

1. Be present and engage fully.
2. Ask questions.
3. Prepare for productive struggle.
4. Consider differing perspectives.
5. Create and maintain a safe space for professional learning.
6. Be mindful of different learning styles.



Ice Breaker

- Choose one option from the following:
 - One word that describes what you most like to do to relax;
 - Something that comes from, is made in, or stands for your place of birth;
 - Your favorite song;
 - What body of water do you think best represents your personality (or just your favorite type of water form and why); or
 - A book you've read in the past year that you liked and why.



SIA 2.0 Mathematics Workbook



STATE-BASED CURRICULUM REVIEW FOR MATHEMATICS

PARTICIPANT WORKBOOK

2022



Standards-in-Action 2.0



The Participant Workbook Is Anchored in the Instructional Shifts

The three key instructional shifts in math are based on evidence of what is most important for students to learn to be prepared for college and careers.

1. **Focus:** Does the curriculum have greater focus on fewer topics?
2. **Coherence:** Does the curriculum link topics and thinking within and across the levels?
3. **Rigor:** Does the curriculum pursue conceptual understanding, procedural skills and fluency, and application with equal intensity?



Four Research-Based Dimensions of Quality for Math Curriculum

1. Critical Mathematical Concepts and Skills
2. Mathematical Progressions and Connections
3. Reasoning and Communicating with Mathematics
4. Quality Mathematics Tasks



Breakout Session



Now it's your turn!

- Use the Curriculum Review Activity document to reflect on how the dimensions of quality relate to the three key instructional shifts.
- You'll have about 20 minutes for the activity and to share your thoughts with one another.
- Take time to raise questions about anything that comes up as you make connections.
- Then, we'll regroup and debrief.



Whole Group Debrief

- Let's go through your reflections on how the dimensions of quality connect to the key instructional shifts.
- What questions or insights came up in the breakout rooms that you would like to share?



Format of the Workbook's Curriculum Review Protocol for Mathematics

Each of the four dimensions includes two types of criteria:

- **Content criteria** detail the demands of high-quality college and career readiness standards. They are also the foundation of sound instruction for English learners (ELs).
- **EL support criteria** name research-based instructional supports that bridge learning gaps and make content in academically rigorous classes comprehensive for ELs.



Workbook Pages for Dimension 1's Content Criteria

Content Criteria

Dimension 1
Critical Mathematical Concepts and Skills

Review Content Criteria:

Guiding Questions

- 1 — **Content Criterion.** Curriculum supports the development of students' understanding of the most critical mathematical concepts required by the standards for the level.
- Are most of the lessons and assessments tied to critical mathematical concepts and skills required for the level?
 - Does the curriculum support students in developing conceptual understanding of those critical concepts and skills?

Substantiation:

Substantiate your findings

- 2 — **Content Criterion.** Curriculum addresses supporting concepts in ways that enhance the focus on critical concepts.
- Do activities address supporting concepts to reinforce critical concepts?
 - Are supporting concepts sufficiently minimized so as to not interfere with the overall focus on the most critical concepts?

Substantiation:

Rating Scale

- 3 — **Content Criterion.** Curriculum is designed so that students attain the required procedural skills and fluencies for the level.
- Does the curriculum provide sufficient practice opportunities for students to attain the computational and procedural fluencies for the level?
 - Does the curriculum regularly assess students on the required fluencies?

Substantiation:

Dimension 1: Rating for Content Alignment

Summarize your rating decision

- ___ 2 Most or all components of the content criteria are present
- ___ 1 Some components of the content criteria are present
- ___ 0 Few or no components of the content criteria are present

Summary Comments:



Workbook Pages for Dimension 1's English Learner (EL) Supports

EL Support Criteria

Rating Scale

Review EL Supports for Dimension 1.

1 — **EL Support.** Curriculum explicitly points out the key mathematical concepts for each lesson.

Substantiation:

2 — **EL Support.** Curriculum identifies key mathematical terms that students need to know to understand concepts addressed for the level.

Substantiation:

3 — **EL Support.** Curriculum includes a glossary or encourages the use of student-friendly dictionaries that define key vocabulary so students can look up unknown words.

Substantiation:

4 — **EL Support.** Curriculum uses plain language that facilitates student access to the mathematical content required in the level.

Substantiation:

Substantiate your findings

Dimension 1: Rating for EL Supports

2 Most or all components of the EL supports are present

1 Some components of the EL supports are present

0 Few or no components of the EL supports are present

Summary Comments:

Summarize your rating decision



The Curriculum Review Process

- Together, we will review the meaning of the content criteria for each dimension.
- Then with your team, we will ask you to search the model curriculum for evidence that each criterion is met.
- You will place a checkmark next to each criterion for which you find evidence. You will add a brief comment that substantiates your check mark (or the lack thereof).
- Once you have reviewed all the content criteria for that dimension, you will assign a rating of 0, 1, or 2 points.
- We will ask you to follow the same steps to rate the EL support criteria for each dimension.



Determine the Curriculum's Overall Ratings and Recommendations

Once you have reviewed and rated all four dimensions of quality, you will:

- Determine an overall rating for content alignment by adding the total points assigned to each dimension's content criteria. The highest possible score would be 8 points (2 points per dimension).
- Determine an overall rating for EL supports by adding the total points assigned to each dimension's EL support criteria. The highest possible score would be 8 points (2 points per dimension).
- Summarize your comments and recommendations, including the key strengths and weaknesses of the curriculum you reviewed.
- Then document any recommendations regarding the continued use of the curriculum in your program(s).



Overall Curriculum Ratings

Overall Ratings, Summary Comments, and Recommendations

Overall Rating: Content Alignment	Overall Rating: English Learner Supports
____ Well Aligned (6–8 points)	____ Well Supported (6–8 points)
____ Somewhat Aligned (3–5 points)	____ Somewhat Supported (3–5 points)
____ Not Aligned (0–2 points)	____ Not Well Supported (0–2 points)

Summary Comments and Recommendations:



Supporting Resources for Your Review Work

At the end of your Participant Workbook, you will find:

- Appendix A – Critical Concepts (see pages 17–19)
- Appendix B – Critical Mathematical Concepts That Progress Across the Levels (see pages 20–21)
- Appendix C – Standards for Mathematical Practice (see pages 22–24)
- Appendix D – Determine if a Well-Aligned Curriculum Is Also a Good Fit for Your Program (see page 25)

Orientation to the Model Curriculum



Why We Chose Illustrative Mathematics as Our Model Curriculum

Illustrative Mathematics is:

- Highly rated as being closely aligned to college and career readiness standards;
- A free and open curriculum that is easy to download; and
- Supportive of English learners.

Illustrative Mathematics for Grade 6, Unit 3:

- Addresses a critical concept for the level: Unit Rates and Percentages (CCRS, Level D); and
- Is relevant to real life and mathematical problems.



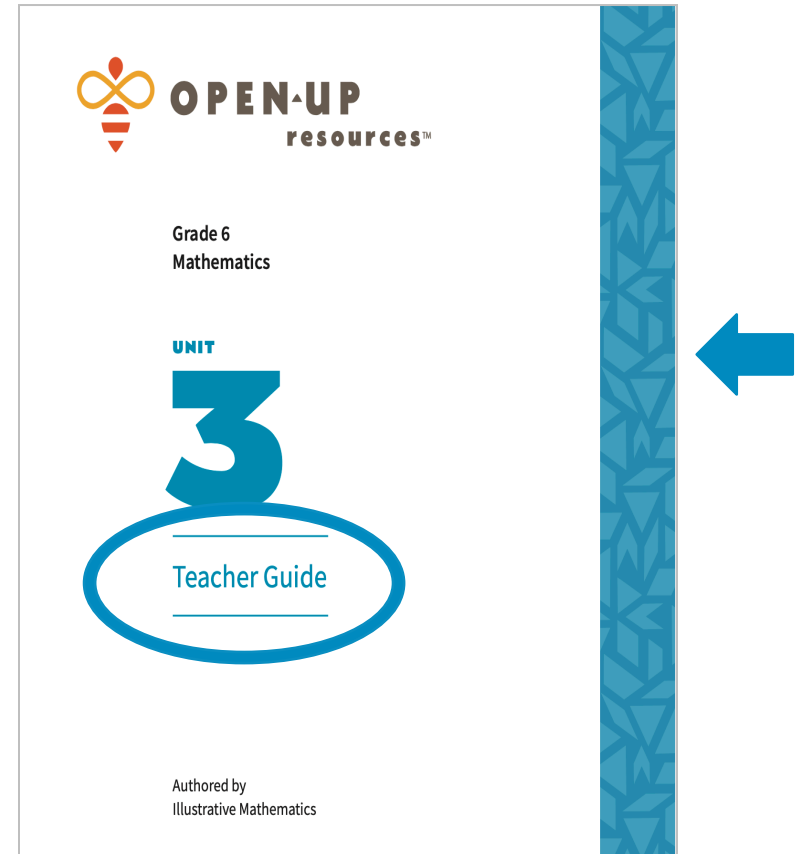
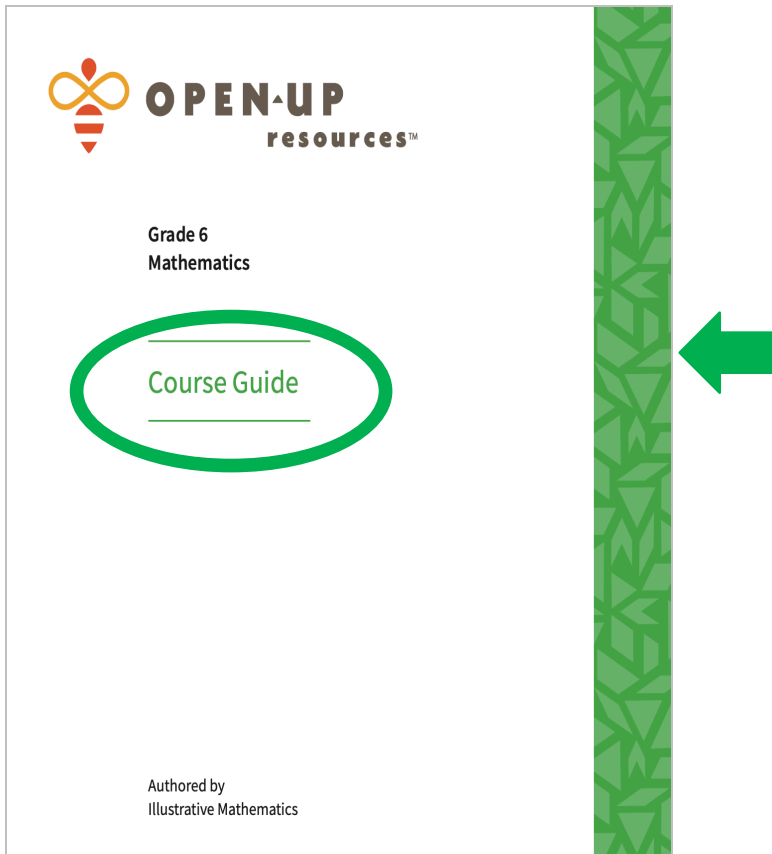
Illustrative Mathematics (IM)

We'll be using four documents in our review of the IM sample:

1. Grade 6 Mathematics Course Guide
2. Grade 6 Mathematics Unit 3 Teacher Guide
3. Grade 7 Mathematics Course Guide (for Dimension 2)
4. Grade 8 Mathematics Course Guide (for Dimension 2)

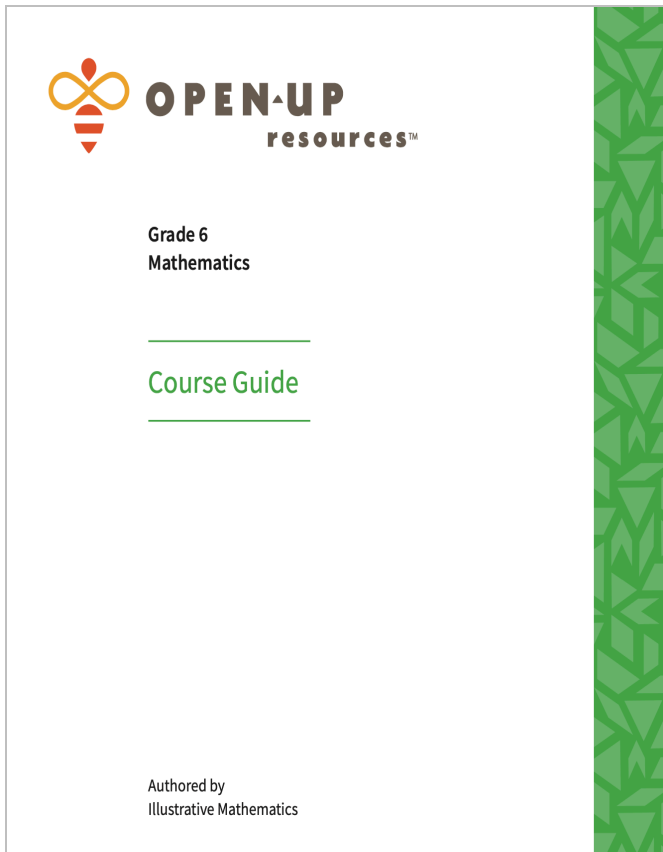


Let's Look First at the Primary IM Documents for Our Sample Unit:





Now Let's Look More Closely at the IM Grade 6 Course Guide

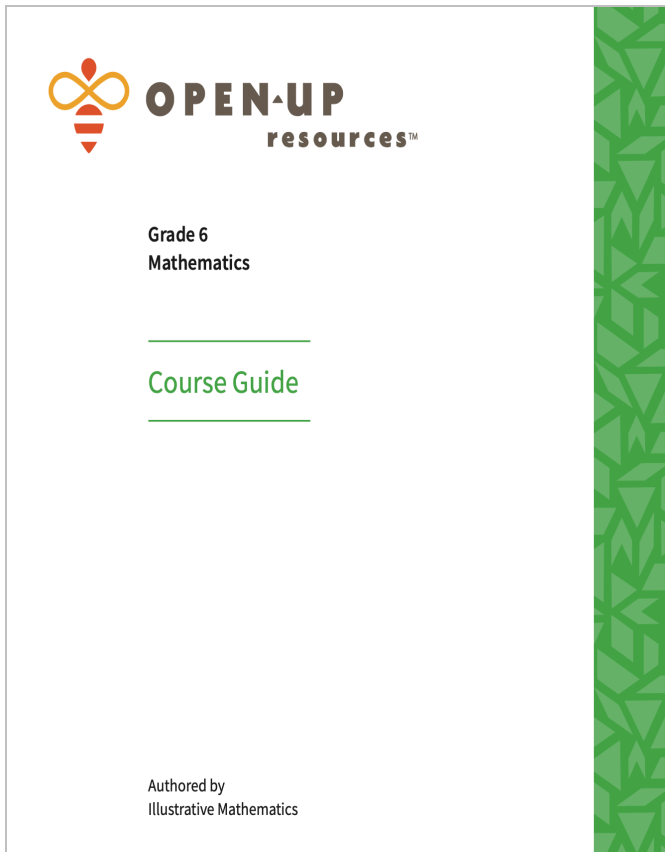


The Course Guide:

- Is helpful for seeing the big picture for the level.
- Provides specific suggestions for the teacher.
- Supports the Unit 3 Teacher Guide.
- Provides general information about lesson organization.



Now Let's Look More Closely at the IM Grade 6 Course Guide, cont'd.



The Course Guide:

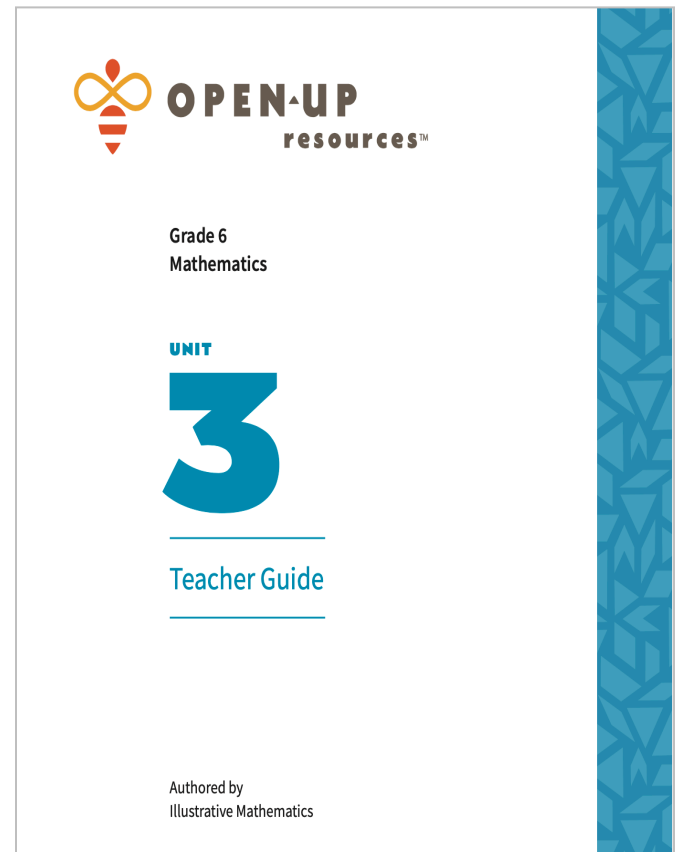
- Provides general instructions about how to use the materials.
- Lists the lessons by standards and vice versa.
- Shows a full scope and sequence for the level and across the levels.
- Includes a full glossary with definitions and graphics.
- Includes a list of required materials for the course.



And Now a Closer Look at the IM Unit 3 Teacher Guide

The Teacher Guide:

- Provides general instructions about how to use the materials.
- Lists required materials for the unit.
- Includes both student- and teacher-facing materials.
- Contains an illustrated glossary.

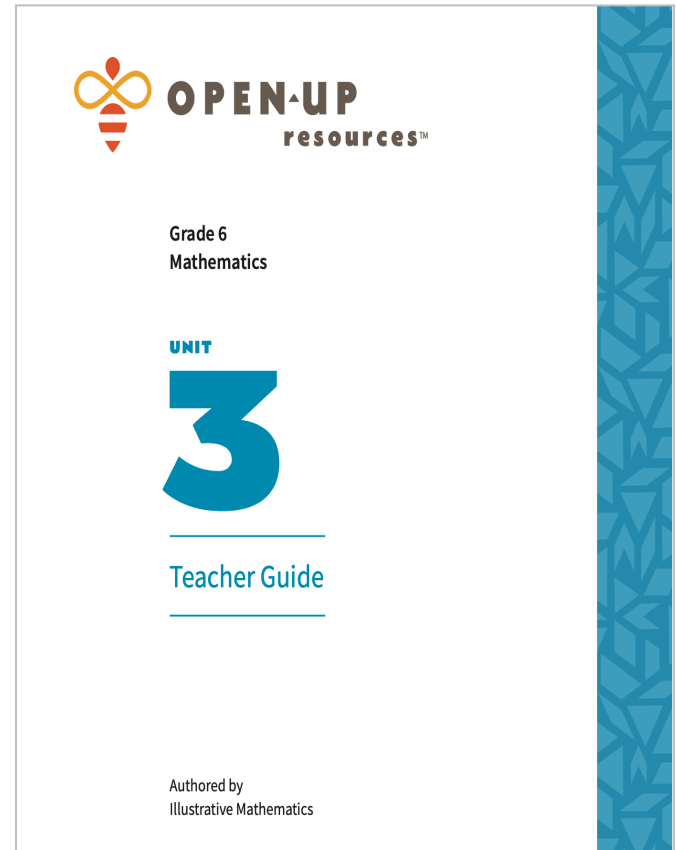




And Now a Closer Look at the IM Unit 3 Teacher Guide, cont'd.

The Teacher Guide:

- Contains a Table of Contents that provides a list of all lesson titles for the unit.
- Includes pre-and post-assessments.
- Provides supports for English learners and students with disabilities.
- Tasks include “Possible Responses” and “Anticipated Misconceptions.”





For Dimension 2, We Will Also Rely on Course Guides for Grades 7 and 8





That Was a Quick Tour of the Model

- At our next session, we will start digging into the specifics of each dimension.
- Before then, if you haven't already, you need to select a curriculum in use in your state to examine alongside the model.
- There are more details on the following slide of what to consider.



Select a Representative Sample of Your Curriculum

Select a sample that...

- Addresses a critical concept for the level and one that is especially relevant to the lives of adult students.
- Is big enough to get a clear picture of what the whole has to offer; but
- Is small enough to be handled easily; and
- Is readily available.



Our Work Together

- We will always have between-session work to apply the learning from each webinar to your chosen curriculum.
- We will also think through how to sustain this work when the training ends.



Let's Recap Our Preparations

- We have worked to become comfortable with the tools and the technology.
- We have reviewed the components of the Participant Workbook.
- We have reviewed the team expectations (e.g., meeting times, attendance, assignments).
- Two questions:
 - Have you selected a curriculum to review as a team?
 - Shall we schedule our standing, in-between work sessions now?



Our Next Session

- We will begin our deep dive into Dimension 1.



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Thank you and see
you soon!