Instructional Materials Evaluation Toolkit (IMET)

Mathematics, High School
**Instructional Materials Evaluation Tool**

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**What Are the Purposes of the IMET?**

This Math IMET is designed to help educators determine whether instructional materials are aligned to the Shifts and major features of the Common Core State Standards (CCSS). The substantial instructional Shifts (http://www.corestandards.org/other-resources/key-shifts-in-mathematics/) at the heart of the Common Core State Standards are:

- **Focus**: strongly where the Standards focus
- **Coherence**: Think across grades and link to major topics within the grade
- **Rigor**: In major topics, pursue conceptual understanding, procedural skill and fluency, and application with equal intensity.

The IMET draws directly from the following documents:

- Common Core State Standards for Mathematics (www.corestandards.org/Math)

**When to use the IMET**

1. **Purchasing materials**: Many factors go into local purchasing decisions. Alignment to the Standards is a critical factor to consider. This tool is designed to evaluate alignment of instructional materials to the Shifts and the major features of the CCSS. It also provides suggestions of additional indicators to consider in the materials evaluation and purchasing process.

2. **Evaluating materials currently in use**: The IMET can be used to analyze the degree of alignment of existing materials and help to highlight specific, concrete flaws in alignment. Even where materials and tools currently in use fail to meet one or more of these criteria, the pattern of failure is likely to be informative. States and districts can use the evaluation to create a thoughtful plan to modify or combine existing resources in such a way that students’ actual learning experiences approach the focus, coherence, and rigor of the Standards.

3. **Developing programs**: Those developing new programs can use this tool as guidance for creating aligned curricula.

Please note this tool was designed for evaluating comprehensive curricula (including any supplemental or ancillary materials), but it was not designed for the evaluation of standalone supplemental materials.

**Who Uses the IMET?**

Evaluating instructional materials requires both subject-matter and pedagogical expertise. Evaluators should be well versed in the Standards (www.corestandards.org/Math) for all grades in which materials are being evaluated. This includes understanding the Widely Applicable Prerequisites (www.achievethecore.org/prerequisites), how the content fits into the progressions in the Standards (www.achievethecore.org/progressions), and the expectations of the Standards with respect to conceptual understanding, procedural skill and fluency, and application. Evaluators also should be familiar with the substantial instructional Shifts (http://www.corestandards.org/other-resources/key-shifts-in-mathematics/) of Focus, Coherence and Rigor that are listed above.
### Getting Started

#### Prior to Evaluation

Assemble all of the materials necessary for the evaluation. It is essential for evaluators to have materials for all grades covered by the program, as some criteria cannot be rated without having access to each grade. In addition, each evaluator should have a reference copy of the Common Core State Standards for Mathematics (CCSSM) and the Publishers’ Criteria for the Common Core State Standards for Mathematics, High School (Spring 2013).

Before conducting the evaluation itself, it is important to develop a protocol for the evaluation process. The protocol should include having evaluators study the Publishers’ Criteria and the IMET. It will also be helpful for evaluators to get a sense of each program overall before beginning the process. At a minimum, this would include reading the front matter of the text, looking at the table of contents and paging through multiple chapters.

Sections 1–3 below should be completed to produce a comprehensive picture of the strengths and weaknesses of the materials under evaluation. Information about areas in need of improvement or supplementation should be shared with internal and external stakeholders.

#### Navigating the Tool

**Begin with Section 1: Non-Negotiable Alignment Criteria (p. 4)**

- The Non-Negotiable Alignment Criterion must be met in full for materials to be considered aligned to the Shifts and the major features of the Common Core State Standards. The Non-Negotiable Alignment Criterion has metrics associated with it; every one of these metrics must be met in order for the criterion as a whole to be met.

- Examine the relevant materials and use evidence to rate the materials against each criterion and its associated metric(s).

- Record and explain the evidence upon which the rating is based.

**Continue to Section 2: Alignment Criteria (p. 14)**

- The Alignment Criteria must each be met for materials to be considered aligned to the Shifts and the major features of the Common Core State Standards. Each Alignment Criterion has one or more metric associated with it; a specific number of these metrics must be met or partially met in order for the criterion as a whole to be met.

- Examine the materials in relation to these criteria, assigning each metric a point value. Rate the criterion as “Meets” or “Does Not Meet” based on the number of points assigned. The more points the materials receive on the Alignment Criteria, the better they are aligned.

- Record and explain the evidence upon which the rating is based.

**Complete Section 3: Evaluation Summary (p. 34)**

- Compile all of the results from Sections 1 and 2 to determine if the instructional materials are aligned to the Shifts and major features of the CCSS.

**Proceed to Section 4: Indicators of Quality (p. 36)**

- Indicators of Quality are important considerations that will help evaluators better understand the overall quality of instructional materials. These considerations are not criteria for alignment to the CCSS, but they provide valuable information about additional program characteristics. Evaluators may want to add their own indicators to the examples provided.
Directions for Non-Negotiable 1
Focus and Coherence

Non-Negotiable 1: Materials must focus coherently on the Widely Applicable Prerequisites in a way that is consistent with the progressions in the Standards.

Focus and coherence are the two major evidence-based design principles of the Common Core State Standards for Mathematics (CCSSM, p. 3). Focus is necessary in order to fulfill the ambitious promise the states have made to their students by adopting the Standards: greater achievement at the college and career-ready level; greater depth of understanding of mathematics; and a rich classroom environment in which reasoning, sense-making, applications, and a range of mathematical practices flourish. In high school courses, narrowing and deepening the curriculum creates a structure that ties topics together. Thus, materials must focus coherently on the Widely Applicable Prerequisites in a way that is consistent with the progressions in the Standards.

Rating this Criterion

Non-Negotiable 1 is rated as Meets or Does Not Meet.

To rate Non-Negotiable 1, first rate Metrics 1A–1H. Each of these eight metrics must be rated as Meets in order for Non-Negotiable 1 to be rated as Meets. Rate each metric 1A–1H as Meets or Does Not Meet/Insufficient Evidence. If the evidence examined shows that the Criterion is met, then mark the Criterion as Meets. If the evidence examined shows that the Criterion is not met—or if there is insufficient evidence to make a determination—then mark the Criterion as Does Not Meet/Insufficient Evidence. Support all ratings with evidence.

Required Materials

- Common Core State Standards for Mathematics
  (www.corestandards.org/wp-content/uploads/Math_Standards.pdf)

- Publishers’ Criteria for the Common Core State Standards for Mathematics, High School (Spring 2013)

- Widely Applicable Prerequisites for College and Careers (http://achievethecore.org/prerequisites)

- From the materials being evaluated: teacher guides, student texts and workbooks
Non-Negotiable 1
Focus and Coherence

Metric

NN Metric 1A:
In any single course, students spend at least 50% of their time on Widely Applicable Prerequisites.

How to Find the Evidence

Familiarize yourself with the Widely Applicable Prerequisites.

Evaluate the table of contents and any pacing guides. Do not stop there; also evaluate units, chapters, lessons, homework assignments, and assessments. (Evaluate both student and teacher materials.)

Consider time spent on the Widely Applicable Prerequisites and judge qualitatively whether students and teachers using the materials as designed will devote the majority of time to the Widely Applicable Prerequisites

For context, read Criterion #1 in the Publishers’ Criteria for the Common Core State Standards for Mathematics, High School (Spring 2013).

Evidence

Rating

☐ Meets
☐ Does Not Meet / Insufficient Evidence
Non-Negotiable 1
Focus and Coherence

Metric

NN Metric 1B:
Student work in Geometry involves significant work with applications/modeling and problems that use algebra skills.

How to Find the Evidence

Evaluate the table of contents and any pacing guides. Do not stop there; also evaluate units, chapters, lessons, homework assignments, and assessments. (Evaluate both student and teacher materials.

NOTE: Since Geometry contains relatively fewer Widely Applicable Prerequisites, this Criterion is important to help foster students’ college and career readiness. Problems that use algebra skills might include, for example, algebraic geometry problems in a coordinate setting, or problems of measurement involving unknown quantities.

Evidence

Rating

☐ Meets
☐ Does Not Meet / Insufficient Evidence
### Metric

**NN Metric 1C:**
There are problems at a level of sophistication appropriate to high school (beyond mere review of middle school topics) that involve the application of knowledge and skills from grades 6-8.

### How to Find the Evidence

Evaluate lessons, chapter/unit assessments, and homework assignments. NOTE: Problems should include application of the following topics from grades 6-8:

- Ratios and proportional relationships.
- Percentage and unit conversions, e.g., in the context of complex measurement problems involving quantities with derived or compound units (such as mg/mL, kg/m³, acre-feet, etc.).
- Basic function concepts, e.g., by interpreting the features of a graph in the context of an applied problem.
- Concepts and skills of geometric measurement e.g., when analyzing a diagram or schematic.
- Concepts and skills of basic statistics and probability (see grades 6–8.SP)
- Performing rational number arithmetic fluently.

For context, read Table 1 on Page 8 of the Publishers’ Criteria for the Common Core State Standards for Mathematics, High School (Spring 2013).

### Evidence

#### Rating

- [ ] Meets
- [ ] Does Not Meet / Insufficient Evidence
Non-Negotiable 1
Focus and Coherence

Metric

NN Metric 1D:
Materials base courses on the content specified in the Standards.

How to Find the Evidence

Evaluate the table of contents and any pacing guides. Do not stop there; also evaluate units, chapters, and lessons in both student and teacher materials.

For context, read Criterion #3a in the Publishers' Criteria for the Common Core State Standards for Mathematics, High School (Spring 2013).

Evidence

Rating

☐ Meets
☐ Does Not Meet / Insufficient Evidence
Non-Negotiable 1
Focus and Coherence

Metric

NN Metric 1E:
Materials give all students extensive work with course-level problems.

How to Find the Evidence

Evaluate both student and teacher materials.

If the materials provide resources for differentiated learning, consider whether lower-performing students have opportunities to engage with course-level problems. Also consider whether higher-performing students are given opportunities to learn current course-level content in greater depth.

For context, read Criterion #3b in the Publishers’ Criteria for the Common Core State Standards for Mathematics, High School (Spring 2013).

Evidence

Rating

☐ Meets
☐ Does Not Meet / Insufficient Evidence
Non-Negotiable 1
Focus and Coherence

Metric

NN Metric 1F:
Materials relate course-level concepts explicitly to prior knowledge from earlier grades or courses. The materials are designed so that prior knowledge becomes reorganized and extended to accommodate the new knowledge.

How to Find the Evidence

Evaluate student and teacher materials, looking for problems that involve extending the knowledge learned in earlier grades and courses. NOTE: An example of evaluating this Criterion might be to look at whether materials connect the equation of a circle with the distance formula and the Pythagorean theorem.

For context, read Criterion #3c in the Publishers’ Criteria for the Common Core State Standards for Mathematics, High School (Spring 2013).

Evidence

Rating

☐ Meets
☐ Does Not Meet / Insufficient Evidence
Non-Negotiable 1
Focus and Coherence

Metric

NN Metric 1G:
Materials include learning objectives that are visibly shaped by CCSSM cluster and domain headings.

How to Find the Evidence

Select several clusters from the course being evaluated. Evaluate teacher and student materials in relation to these clusters.

For context, read Criterion #4a in the Publishers’ Criteria for the Common Core State Standards for Mathematics, High School (Spring 2013).

Evidence

Rating

☐ Meets
☐ Does Not Meet / Insufficient Evidence
### Non-Negotiable 1
Focus and Coherence

<table>
<thead>
<tr>
<th>Metric</th>
<th>How to Find the Evidence</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>NN Metric 1H: Materials include problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a category, or two or more categories, in cases where these connections are natural and important.</td>
<td>In the course being evaluated, choose two or more clusters, two or more domains, or two or more categories for which connections are natural and important. Evaluate the units, chapters, and lessons that deal with the chosen topics, looking for problems and activities that serve to connect the chosen clusters or domains. NOTE: An example of evaluating this Criterion might be to look at whether materials include problems in which students analyze a situation by building a function, graphing it, and using it to create and solve an equation. For context, read Criterion #4b in the Publishers’ Criteria for the Common Core State Standards for Mathematics, High School (Spring 2013).</td>
<td></td>
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</table>

### Rating

- [ ] Meets
- [ ] Does Not Meet / Insufficient Evidence
Non-Negotiable 1: Materials must focus coherently on the Widely Applicable Prerequisites in a way that is consistent with the progressions in the Standards.

Rating for Non-Negotiable 1

If all metrics 1A–1H were rated as Meets, then rate Non-Negotiable 1 as Meets. If one or more metrics were rated as Does Not Meet/Insufficient Evidence, then rate Non-Negotiable 1 as Does Not Meet. Check the final rating.

Then, briefly describe the strengths and weaknesses of these materials in light of the above Criterion.

Strengths / Weaknesses:

Before moving to Alignment Criterion 1, record the final Meets or Does Not Meet rating in the Evaluation Summary on Page 34.

Now continue by evaluating Alignment Criterion 1 for Rigor and Balance.
Directions for Alignment Criterion 1
Rigor and Balance

Alignment Criterion 1: Materials must reflect the balances in the Standards and help students meet the Standards’ rigorous expectations.

The Standards set expectations for attention to all three aspects of rigor: conceptual understanding, procedural skill and fluency, and applications. Thus, materials must reflect the balances in the Standards and help students meet the Standards’ rigorous expectations.

Required Materials

- Widely Applicable Prerequisites for College and Careers (http://achievethecore.org/prerequisites)
- From the materials being evaluated: teacher guides, student texts and workbooks
- Choose a cluster/Standard from the Widely Applicable Prerequisites that is aligned to each aspect of rigor and use it to evaluate these metrics. It is most helpful if the same clusters and Standards are chosen for all of the programs being evaluated. (Guidance in choosing clusters/Standards is included in “How to Find the Evidence” below.)

Rating this Criterion

Alignment Criterion 1 is rated as Meets or Does Not Meet.

To rate Alignment Criterion 1, first rate metrics 1A, 1B, and 1C. Rate each metric as Meets (2 points), Partially Meets (1 point), or Does Not Meet (0 points). For each metric, guiding questions are provided to aid in gathering evidence.

Since there are three metrics, and each metric is worth up to 2 points, the maximum possible rating across all three metrics is 6 points. Ideally, aligned materials will earn all 6 points; materials are judged to have met Alignment Criterion 1 if the materials rate 5 or 6 points. This threshold recognizes that evaluators sometimes differ in how they assess features such as rigor and balance, while at the same time ensuring that no single metric can receive a rating of zero and be aligned to the Shifts and major features of the CCSSM.
### Alignment Criterion 1
Rigor and Balance

Use the questions on this page to evaluate Metric 1A. On page 16, record evidence for each question and rate Metric 1A.

<table>
<thead>
<tr>
<th>Metric</th>
<th>How to Find the Evidence</th>
<th>Questions for Metric</th>
</tr>
</thead>
</table>
| AC Metric 1A: The materials support the development of students’ conceptual understanding of key mathematical concepts, especially where called for in specific content Standards or cluster headings. | Select one or more cluster(s) or Standard(s) from the Widely Applicable Prerequisites that relate specifically to conceptual understanding to use throughout the questions associated with this metric. NOTE: Some examples of clusters or Standards that call for conceptual understanding include: N-RN.A.1, A-APR.B, A-REI.A.1, A-REI.D.10, A-REI.D.11, F.IF.A.1, F-LE.A.1, G.SRT.A.2, G-SRT.C.6, S-ID.C.7 | Is conceptual understanding attended to thoroughly where the Standards set explicit expectations for understanding or interpreting? Evaluate lessons, chapter/unit assessments and homework assignments, paying attention to work aligned to Standards that explicitly call for understanding or interpreting.  
Do the materials feature high-quality conceptual problems and conceptual discussion questions? Evaluate lessons, chapter/unit assessments, and homework assignments. NOTE: Examples of conceptual problems might include such questions as “What is the maximum value of the function f(t) = 5 – t^2?” or “Is √2 a polynomial? How about ½(x + √2) + ½ (-x + √2)?” |
|  | For context, read Criterion #2a in the Publishers’ Criteria for the Common Core State Standards for Mathematics, High School (Spring 2013). | Do the materials feature opportunities to identify correspondences across mathematical representations? Evaluate lessons, chapter/unit assessments and homework assignments. NOTE: An example of evaluating this metric might include looking at whether materials support students in identifying correspondences among the expression that defines a function, the graph that shows the relationship, and the behavior of the phenomenon being modeled (if any). |
Alignment Criterion 1
Rigor and Balance

Metric

AC Metric 1A:
The materials support the development of students’ conceptual understanding of key mathematical concepts, especially where called for in specific content Standards or cluster headings.

Evidence

Is conceptual understanding attended to thoroughly where the Standards set explicit expectations for understanding or interpreting?

Do the materials feature high-quality conceptual problems and conceptual discussion questions?

Do the materials feature opportunities to identify correspondences across mathematical representations?

Rating

☐ Meets (2)
☐ Partially Meets (1)
☐ Does Not Meet (0)
Alignment Criterion 1
Rigor and Balance

Use the questions on this page to evaluate Metric 1B. On page 18, record evidence for each question and rate Metric 1B.

Metric

AC Metric 1B:
The materials are designed so that students attain the fluencies and procedural skills required by the Standards.

How to Find the Evidence
Select one or more cluster(s) or Standard(s) from the Widely Applicable Prerequisites that relate specifically to fluency and procedural skill to use throughout the questions associated with this metric. NOTE: Some examples of Standards that call for procedural skill and fluency include:

For context, read Criterion #2b in the Publishers’ Criteria for the Common Core State Standards for Mathematics, High School (Spring 2013).

Questions for Metric
Is progress toward fluency and procedural skill interwoven with the student's developing conceptual understanding of the skills in question? Evaluate lessons, chapter/unit assessments, daily routines, and homework assignments for evidence that the development of fluency and procedural skill is supported by conceptual understanding.

Are purely procedural problems and exercises present that include cases in which opportunistic strategies are valuable and generic cases that require efficient and general procedures present? Evaluate lessons, chapter/unit assessments, daily routines, and homework assignments. NOTE: Problems in which opportunistic strategies are valuable might include such examples as solving \( x^2 + 5 = 49 + 5 \) or \( (3x - 2)^2 = 6x - 4 \). Generic cases that require efficient and general procedures might include such problems as solving \( c + 8 - c^2 = 3(c - 1)^2 - 5 \).
Alignment Criterion 1
Rigor and Balance

Metric

AC Metric 1B:
The materials are designed so that students attain the fluencies and procedural skills required by the Standards.

Evidence

Is progress toward fluency and procedural skill interwoven with the student’s developing conceptual understanding of the skills in question?

Are purely procedural problems and exercises present that include cases in which opportunistic strategies are valuable and generic cases that require efficient and general procedures present?

Rating

☐ Meets (2)
☐ Partially Meets (1)
☐ Does Not Meet (0)
Alignment Criterion 1
Rigor and Balance

Use the questions on this page to evaluate Metric 1C. On page 20, record evidence for each question and rate Metric 1C.

Metric

AC Metric 1C:
The materials are designed so that teachers and students spend sufficient time working with engaging applications, without losing focus on the Widely Applicable Prerequisites.

How to Find the Evidence
Select one or more cluster(s) or Standard(s) from the Widely Applicable Prerequisites that relate specifically to application to use throughout the questions associated with this metric. NOTE: Some examples of clusters or Standards that call for application include: N-Q.A, A-SSE.B.3, A-REI.D.11, F-IF.B, F-IF.C.7, F-BF.A.1, G-SRT.C.8, S-ID.A.2, S-IC.A.1

For context, read Criterion #2c in the Publishers’ Criteria for the Common Core State Standards for Mathematics, High School (Spring 2013).

Questions for Metric

Are there single- and multi-step contextual problems, including non-routine problems, that develop the mathematics of the course, afford opportunities for practice, and engage students in problem solving? Do the problems attend thoroughly to those places in the content Standards where expectations for multi-step and real-world problems are explicit? Evaluate lessons, chapter/unit assessments, and homework assignments.

Do application problems particularly stress applying the Widely Applicable Prerequisites? Evaluate lessons, chapter/unit assessments, and homework assignments.

Are there ample opportunities for students to engage with modeling problems? Do materials require students to use both individual parts of the modeling cycle as well as the full modeling cycle? Read the pages on High School—Modeling in the Standards for Mathematics (pp. 72 and 73). Evaluate lessons, chapter/unit assessments, and homework assignments.
## Alignment Criterion 1
### Rigor and Balance

<table>
<thead>
<tr>
<th>Metric</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC Metric 1C: The materials are designed so that teachers and students spend sufficient time working with engaging applications, without losing focus on the Widely Applicable Prerequisites.</td>
<td>Are there single- and multi-step contextual problems, including non-routine problems, that develop the mathematics of the course, afford opportunities for practice, and engage students in problem solving? Do the problems attend thoroughly to those places in the content Standards where expectations for multi-step and real-world problems are explicit? Do application problems particularly stress applying the Widely Applicable Prerequisites? Are there ample opportunities for students to engage with modeling problems? Do materials require students to use both individual parts of the modeling cycle as well as the full modeling cycle?</td>
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</tbody>
</table>

### Rating

- [ ] Meets (2)
- [ ] Partially Meets (1)
- [ ] Does Not Meet (0)
Alignment Criterion 1
Rigor and Balance

Alignment Criterion 1: Materials must reflect the balances in the Standards and help students meet the Standards’ rigorous expectations.

Points Assigned for Alignment Criterion 1

Materials must earn at least 5 of 6 points to meet this Alignment Criterion. If materials earn less than 5 points, the Criterion has not been met. Check the final rating.

Then, briefly describe the strengths and weaknesses of these materials in light of the above Criterion.

Rating

☐ Meets
☐ Does Not Meet

Strengths / Weaknesses:

Before moving to Alignment Criterion 2, record the final Meets or Does Not Meet rating in the Evaluation Summary on Page 34.
Directions for Alignment Criterion 2
Standards for Mathematical Practice

Alignment Criterion 2L: Materials must demonstrate authentic connections between content Standards and practice Standards.

The Standards require that designers of instructional materials connect the mathematical practices to mathematical content in instruction. Thus, materials must demonstrate authentic connections between content Standards and practice Standards.

Required Materials


- Widely Applicable Prerequisites for College and Careers (http://achievethecore.org/prerequisites)

- From the materials being evaluated: teacher guides, student texts and workbooks

Rating this Criterion

Alignment Criterion 2 is rated as Meets or Does Not Meet.

To rate Alignment Criterion 2, first rate metrics 2A, 2B, and 2C. Rate each metric as Meets (2 points), Partially Meets (1 point), or Does Not Meet (0 points). For each metric, guiding questions are provided to aid in gathering evidence.

Since there are three metrics, and each metric is worth up to 2 points, the maximum possible rating across all three metrics is 6 points. Ideally, aligned materials will earn all 6 points; materials are judged to have met Alignment Criterion 2 if the materials rate 5 or 6 points. This threshold recognizes that evaluators sometimes differ in how they assess features such as mathematical practices, while at the same time ensuring that no single metric can receive a rating of zero and be aligned to the Shifts and major features of the CCSSM.
### Alignment Criterion 2

**Standards for Mathematical Practice**

<table>
<thead>
<tr>
<th>Metric</th>
<th>How to Find the Evidence</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AC Metric 2A:</strong></td>
<td>Familiarize yourself with the Widely Applicable Prerequisites.Evaluate teacher and student materials for evidence that the mathematical practices support and connect to the focus of the course. NOTE: An example of evaluating this Criterion might include looking at whether materials use regularity in repeated reasoning to illuminate formal algebra as well as functions, particularly recursive definitions of functions. For context, read Criterion #6 in the Publishers' Criteria for the Common Core State Standards for Mathematics, High School (Spring 2013).</td>
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</table>

### Rating

- [ ] Meets (2)
- [ ] Partially Meets (1)
- [ ] Does Not Meet (0)
Alignment Criterion 2
Standards for Mathematical Practice

Use the questions on this page to evaluate Metric 2B. On page 25, record evidence for each question and rate Metric 2B.

<table>
<thead>
<tr>
<th>Metric</th>
<th>How to Find the Evidence</th>
<th>Questions for Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC Metric 2B: Materials attend to the full meaning of each practice Standard.</td>
<td>For context, read Criterion #7 in the Publishers’ Criteria for the Common Core State Standards for Mathematics, High School (Spring 2013).</td>
<td>Over the course of any given year of instruction, is each mathematical practice Standard meaningfully present in the form of assignments, activities, or problems that stimulate students to develop the habits of mind described in the practice Standard? Evaluate lessons, chapter/unit assessments, and homework assignments for evidence of each mathematical practice being meaningfully present in instruction. Are teacher-directed materials that explain the role of the practice Standards in the classroom and in students’ mathematical development included? Are alignments to practice Standards accurate? Evaluate teacher materials, paying attention to explanations of the role of the practice Standards in the classroom and in students’ mathematical development. Evaluate documents aligning lessons to practice Standards for accuracy. NOTE: Examples to look for when evaluating this metric might include the following: a highly scaffolded problem should not be aligned to MP.1; or a problem that directs a student to use a calculator should not be aligned to MP.5; or a problem about merely extending a pattern should not be aligned to MP.8.</td>
</tr>
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</table>
Alignment Criterion 2
Standards for Mathematical Practice

Metric

AC Metric 2B: Materials attend to the full meaning of each practice Standard.

Evidence

Over the course of any given year of instruction, is each mathematical practice Standard meaningfully present in the form of assignments, activities, or problems that stimulate students to develop the habits of mind described in the practice Standard?

Are teacher-directed materials that explain the role of the practice Standards in the classroom and in students’ mathematical development included? Are alignments to practice Standards accurate?

Rating

☐ Meets (2)
☐ Partially Meets (1)
☐ Does Not Meet (0)
Alignment Criterion 2
Standards for Mathematical Practice

Use the questions on this page to evaluate Metric 2C. On page 27, record evidence for each question and rate Metric 2C.

Metric

AC Metric 2C:
Materials support the Standards’ emphasis on mathematical reasoning.

How to Find the Evidence
For context, read Criterion #8 in the Publishers’ Criteria for the Common Core State Standards for Mathematics, High School (Spring 2013).

Questions for Metric
Do the materials support students in constructing viable arguments and critiquing the arguments of others concerning course-level mathematics that is detailed in the content Standards? Read Standard for Mathematical Practice 3. Evaluate teacher and student materials to ensure that students are given opportunities to reason with grade-level mathematics.

Do the materials support students in producing not only answers and solutions, but also, in a course-appropriate way, arguments, explanations, diagrams, mathematical models, etc., especially in the Widely Applicable Prerequisites? Familiarize yourself with the Widely Applicable Prerequisites. Evaluate teacher and student materials to understand the types of work students are expected to produce.

Do materials explicitly attend to the specialized language of mathematics? Is the language of argument, problem solving, and mathematical explanations taught rather than assumed? Evaluate teacher and student materials, paying attention to how mathematical language is taught. NOTE: An example of evaluating this Criterion might include looking at whether students are supported in: basing arguments on definitions; using the method of providing a counterexample; or recognizing that examples alone do not establish a general statement.
Alignment Criterion 2  
Standards for Mathematical Practice

Metric

AC Metric 2C: Materials support the Standards’ emphasis on mathematical reasoning.

Evidence

Do the materials support students in constructing viable arguments and critiquing the arguments of others concerning course-level mathematics that is detailed in the content Standards?

Do the materials support students in producing not only answers and solutions, but also, in a course-appropriate way, arguments, explanations, diagrams, mathematical models, etc., especially in the Widely Applicable Prerequisites?

Do materials explicitly attend to the specialized language of mathematics? Is the language of argument, problem solving, and mathematical explanations taught rather than assumed?

Rating

☐ Meets (2)
☐ Partially Meets (1)
☐ Does Not Meet (0)
Alignment Criterion 2
Standards for Mathematical Practice

Alignment Criterion 2: Materials must demonstrate authentic connections between content Standards and practice Standards.

Points Assigned for Alignment Criterion 2

Materials must earn at least 5 out of 6 points to meet this Alignment Criterion. If materials earn less than 5 points, the Criterion has not been met. Check the final rating.

Then, briefly describe the strengths and weaknesses of these materials in light of the above Criterion.

Rating

- Total (6 points possible)
  - Meets
  - Does Not Meet

Strengths / Weaknesses:

Before moving to Alignment Criterion 3, record the final Meets or Does Not Meet rating in the Evaluation Summary on Page 34.
Directions for Alignment Criterion 3
Access to the Standards for All Students

Alignment Criterion 3: Materials must provide supports for English Language Learners and other special populations.

Because Standards are for all students, alignment requires thoughtful support to ensure all students are able to meet the Standards. Thus, aligned materials must provide supports for English Language Learners and other special populations.

Required Materials

- From the materials being evaluated: teacher guides, student texts and workbooks

Rating this Criterion

Alignment Criterion 3 is rated as Meets or Does Not Meet.

To rate Alignment Criterion 3, first rate metrics 3A, 3B, and 3C. Rate each metric as Meets (2 points), Partially Meets (1 point), or Does Not Meet (0 points).

Since there are three metrics, and each metric is worth up to 2 points, the maximum possible rating across all three metrics is 6 points. Ideally, aligned materials will earn all 6 points; materials are judged to have met Alignment Criterion 3 if the materials rate 5 or 6 points. This threshold recognizes that evaluators sometimes differ in how they assess features such as support for special population, while at the same time ensuring that no single metric can receive a rating of zero and be aligned to the Shifts and major features of the CCSSM.
Alignment Criterion 3
Access to the Standards for All Students

AC Metric 3A:
Support for English Language Learners and other special populations is thoughtful and helps those students meet the same Standards as all other students. The language in which problems are posed is carefully considered.

How to Find the Evidence
Evaluate teacher and student materials, paying attention to supports offered for special populations.

Rating
☐ Meets (2)
☐ Partially Meets (1)
☐ Does Not Meet (0)
**Alignment Criterion 3**  
Access to the Standards for All Students

<table>
<thead>
<tr>
<th>Metric</th>
<th>How to Find the Evidence</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC Metric 3B: Materials provide appropriate level and type of scaffolding, differentiation, intervention, and support for a broad range of learners with gradual removal of supports, when needed, to allow students to demonstrate their mathematical understanding independently.</td>
<td>Evaluate teacher and student materials, paying attention to whether materials provide differentiation that will lead all learners to engage with on-grade-level content.</td>
<td></td>
</tr>
</tbody>
</table>

**Rating**

- [ ] Meets (2)
- [ ] Partially Meets (1)
- [ ] Does Not Meet (0)
### Alignment Criterion 3
Access to the Standards for All Students

#### Metric

**AC Metric 3C:**
Design of lessons recommends and facilitates a mix of instructional approaches for a variety of learners such as using multiple representations (e.g., including models, using a range of questions, checking for understanding, flexible grouping, pair-share).

#### How to Find the Evidence

Evaluate teacher materials, noting instructional approaches suggested for whole class and differentiated lessons and activities.

#### Evidence

<table>
<thead>
<tr>
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<tr>
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Alignment Criterion 3
Access to the Standards for All Students

Alignment Criterion 3: Materials must provide supports for English Language Learners and other special populations.

Points Assigned for Alignment Criterion 3

Materials must earn at least 5 out of 6 points to meet this Alignment Criterion. If materials earn less than 5 points, the Criterion has not been met. Check the final rating.

Then, briefly describe the strengths and weaknesses of these materials in light of the above Criterion.

Rating

☐ Meets
☐ Does Not Meet

Strengths / Weaknesses:

Move to the Evaluation Summary on the following page to record the final Meets or Does Not Meet rating.
IMET Evaluation Summary 1 of 2

Program: ___________________________  Name of Evaluator(s): ___________________________

Publisher: ___________________________  Date of Evaluation: ___________________________

Date of Publication: ___________________  Signature of Each Evaluator(s): ___________________

Non-Negotiable Criteria

The Non-Negotiable Criterion must be Met.

Non-Negotiable 1: Focus and Coherence

☐ Meets  ☐ Does Not Meet

Alignment Criteria

Each Alignment must be met with a sufficient number of points in order for Alignment Criteria to be labeled as “Meets” overall. The more points the materials receive on the Alignment Criteria, the better they are aligned.

Alignment Criterion 1: Rigor and Balance
Points: ___ of 6 possible.
(Materials must receive at least 5 of 6 points to align.)

☐ Meets  ☐ Does Not Meet

Alignment Criterion 2: Standards for Mathematical Practice
Points: ___ of 6 possible.
(Materials must receive at least 5 of 6 points to align.)

☐ Meets  ☐ Does Not Meet

Alignment Criterion 3: Access to Standards for All Learners
Points: ___ of 6 possible.
(Materials must receive at least 5 of 6 points to align.)

☐ Meets  ☐ Does Not Meet

Alignment Criteria Overall

☐ Meets  ☐ Does Not Meet
Summary

If the materials meet the Non-Negotiable Criterion and each Alignment Criterion, they are aligned to the Shifts and major features of the CCSS.

Do the materials meet every Non-Negotiable and Alignment Criteria?

☐ Yes
☐ No

What are the specific areas of strength and weakness based on this evaluation?
Publishers or others modifying or developing assessments can use this information to make improvements and/or to remedy gaps in the alignment of assessment materials.
Indicators of Quality

Once an evaluation for alignment to the Shifts and major features of the CCSS has been conducted using Sections 1-3, it's important to evaluate for overall quality and best practices. A starting list of Indicators of Quality are suggested below. States, districts and others evaluating instructional materials are encouraged to add to this list to ensure materials reflect local contexts. For background information on some of the Indicators of Quality in this section, refer to pp. 16–18 in the Publishers’ Criteria for the Common Core State Standards for Mathematics, High School (Spring 2013).

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Evidence</th>
<th>Rating (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lessons are thoughtfully structured and support the teacher in leading the class through the learning paths at hand, with active participation by all students in their own learning and in the learning of their classmates.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The underlying design of the materials includes both problems and exercises. (In solving problems, students learn new mathematics, whereas in working exercises, students apply what they have already learned to build mastery.) Each problem or exercise has a purpose. NOTE: This Criterion does not require that the problems and exercises be labeled as such.</td>
<td></td>
<td></td>
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<tr>
<td>3. Design of assignments is not haphazard; exercises are given in intentional sequences in order to strengthen students’ mathematical understanding.</td>
<td></td>
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</tbody>
</table>
## Indicators of Quality

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<tr>
<td>4. There are separate teacher materials that support and reward teacher</td>
<td>discussion of the mathematics of the units and the mathematical point of each lesson as it relates</td>
<td></td>
</tr>
<tr>
<td>study including, but not limited to: discussion on student ways of</td>
<td>to the organizing concepts of the unit, discussion on student ways of thinking and anticipating a</td>
<td></td>
</tr>
<tr>
<td>thinking and anticipating a variety of students responses, guidance on</td>
<td>variety of students responses, guidance on lesson flow, guidance on questions that prompt students</td>
<td></td>
</tr>
<tr>
<td>questions that prompt students thinking, and discussion of desired</td>
<td>thinking, and discussion of desired mathematical behaviors being elicited among students.</td>
<td></td>
</tr>
<tr>
<td>mathematical behaviors being elicited among students.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Manipulatives suggested in the materials are faithful representations</td>
<td>Manipulatives suggested in the materials are faithful representations of the mathematical objects</td>
<td></td>
</tr>
<tr>
<td>of the mathematical objects they represent and are connected to written</td>
<td>they represent and are connected to written methods.</td>
<td></td>
</tr>
<tr>
<td>methods.</td>
<td></td>
<td></td>
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<tr>
<td>6. Materials include a variety of curriculum-embedded assessments.</td>
<td>Materials include a variety of curriculum-embedded assessments. Examples include pre-, formative,</td>
<td></td>
</tr>
<tr>
<td>Examples include pre-, formative, summative, and self-assessment</td>
<td>summative, and self-assessment resources.</td>
<td></td>
</tr>
<tr>
<td>resources.</td>
<td></td>
<td></td>
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<tr>
<td>7. Assessments contain aligned rubrics, answer keys, and scoring</td>
<td>Assessments contain aligned rubrics, answer keys, and scoring guidelines that provide sufficient</td>
<td></td>
</tr>
<tr>
<td>guidelines that provide sufficient guidance for interpreting student</td>
<td>guidelines that provide sufficient guidance for interpreting student performance.</td>
<td></td>
</tr>
<tr>
<td>performance.</td>
<td></td>
<td></td>
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<tr>
<td>8. Materials assess student proficiency using methods that are accessible</td>
<td>Materials assess student proficiency using methods that are accessible and unbiased, including the</td>
<td></td>
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<tr>
<td>and unbiased, including the use of course-level language in student</td>
<td>use of course-level language in student prompts.</td>
<td></td>
</tr>
<tr>
<td>prompts.</td>
<td></td>
<td></td>
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## Indicators of Quality

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<td>9. Materials are carefully evaluated by qualified individuals, whose names are listed, in an effort to ensure freedom from mathematical errors and course-level appropriateness.</td>
<td></td>
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</tr>
<tr>
<td>10. The visual design supports students in engaging thoughtfully with the subject. Navigation through the text is clear.</td>
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