Mathematics Resource Alignment Tool¹

- Rate the resource against the criteria in the Mathematics
 Resource Alignment Tool. Use the dimensions and the
 evidence statements in the tool to guide your ratings.
 Record strengths and weaknesses for each key criterion
 (Focus, Coherence, and Rigor).
- 2. Determine the high-value actions needed to fill gaps for the dimensions that make up each criterion. Identify the high-value action(s) related to each criterion that will strengthen the alignment of the resource to your college and career readiness (CCR) standards. High-value actions are those that will bring your resource into much closer alignment to the standards. In many cases, while the actions take some effort, they can be efficiently executed.

- 3. **Give an overall score for the resource.** Summarize the overall strengths and weaknesses of the resource with respect to the three criteria to score the resource.
- 4. **Begin the lesson revision process.** Review the ratings and the high-value actions you identified and choose one lesson in the resource to begin the revision process. Use the Focus on the Major Work of the Level (#4) and the Mathematics Lesson Revision Template (#5) to catalogue your improvements to the lesson. To assist with the revisions, use your CCR standards and other support documents, such as the CCR Content Progressions (#2) and Standards for Mathematical Practice (#3).

Individual Dimension Rating Descriptors

Meets	There is evidence in the resource to indicate that this dimension is met.
Partially Meets	There is evidence in the resource to indicate that the dimension can be met with some revision.
Does Not Meet	There is little or no evidence in the resource to indicate that this dimension is being met. Substantial
(Insufficient Evidence)	revision is needed for alignment.

¹ Adapted from *Publishers' Criteria for the Common Core State Standards in Mathematics*. Washington, DC. Accessed January 13, 2015. http://www.corestandards.org/assets/Math_Publishers_Criteria_HS_Spring%202013_FINAL.pdf and http://www.corestandards.org/assets/Math_Publishers_Criteria_K-8_Summer%202012_FINAL.pdf; *Toolkit for Evaluating Alignment of Instructional and Assessment Materials to the Common Core State Standards*. https://www.achieve.org/publications/toolkit-evaluating-alignment-instructional-and-assessment-materials-common-core-state

Criterion #1—Focus: Does the resource focus strongly where the standards focus, including relevant Standards for Mathematical Practice?

Dimension 1.1	Meets	Partially Meets	Does Not Meet (Insufficient Evidence)
Major Work of the Level (MWOTL): Most lessons in the resource are focused on the most critical concepts for that level. (Support document: CCR Content Progressions [#2])	the sample of lessons). Extensive work is provided wit	OTL are targeted by the resource (as th on-level problems and activities th supporting standards focus on enha	nat are tied to the MWOTL.
Dimension 1.2		Partially Meets	Does Not Meet (Insufficient Evidence)
Standards for Mathematical Practice: Each lesson meaningfully connects mathematical content with the Standards for Mathematical Practice. (Support document: Standards for Mathematical Practice [#3])	 each lesson of the sample rev The targeted Standards for M There are descriptions on how 	an four—of the Standards for Matheriewed. lathematical Practice are <i>central</i> to the work to make meaningful connections be sematical Practice in the lessons.	he goals of the lessons.

Math Tool #1

Criterion #1 (cont.)
Summary of strengths and weaknesses:
High-value actions needed to fill the gaps:
☐ Identify the MWOTL in the resource.
☐ Identify the MWOTL not covered in the resource that will need to be supplemented by other resources.
Identify and add Standards for Mathematical Practice that are central to a lesson (or reduce the number that are addressed) and include a description of how they are related.
☐ Other:

Criterion #2—Coherence: Does the resource design learning around coherent progressions between levels and within the level?

Dimension 2.1	Meets	Partially Meets	Does Not Meet (Insufficient Evidence)
Difficultion 2.1			
Coherence Across Levels: The resource regularly relates on-level concepts to knowledge from previous levels and to future learning. (Support document: CCR Content Progressions [#2])	Mathematics content from	erstandings from previous levels. previous levels is clearly identifien to how the content of this lesson s	
Dimension 2.2		Partially Meets	Does Not Meet (Insufficient Evidence)
Dimension 2.2			
Coherence Within a Level: Where appropriate, the resource connects two or more standards within a progression, or two or more progressions within a level. (Support document: CCR Content Progressions [#2])	or in a series of lessons).	erstandings from previous lessons nnect knowledge and skills within o so.	

Criterion #2 (cont.)
Summary of strengths and weaknesses:
High-value actions needed to fill the gaps:
☐ Add to lesson's knowledge and skills from prior levels needed to understand content that students are currently learning.
☐ Identify "as review" student tasks, activities, or assessment items included in lessons that reference learning at previous levels.
Recommend that student activities or assessment items addressing learning at subsequent levels be excluded from a lesson or identified as an extension of work at the current level.
Suggest rearranging lessons so the sequence of knowledge and skills learned in the resource has a natural and logical flow to support student learning.
\square Other:

Criterion #3—Rigor: Does the resource pursue conceptual understanding, procedural skill and fluency, and application with equal intensity?

Dimension 3.1	Meets	Partially Meets	Does Not Meet (Insufficient Evidence)
Conceptual Understanding: The resource regularly develops students' conceptual understanding through tasks, problems, questions, multiple representations, and opportunities for students to write and speak about their understanding.	Discussion questions requiring co	onceptual understanding of the most conceptual understanding are provided ents to demonstrate, in multiple ways, e lessons.	with the lessons.
		Partially Meets	Does Not Meet (Insufficient Evidence)
Dimension 3.2			
Procedural Skill and Fluency: The resource regularly asks students to perform calculations and use mathematical procedures quickly and accurately.	standards. • The resource expects core calculates.	students attain the fluencies and proc ations and mathematical procedures fo des the requisite support to build that	or the level to be performed

Criterion #3 (cont.)				
	Meets	Partially Meets	Does Not Meet (Insufficient Evidence)	
Dimension 3.3				
Application: The resource <i>regularly</i> requires students to engage in challenging applications of mathematics in real-world and mathematical contexts.	 Evidence: The resource is designed so that students spend sufficient time working with engaging applications, without losing focus on the MWOTL. The resource regularly provides opportunities for students to independently apply mathematical concepts in real-world situations and solve challenging problems that require students to choose an appropriate model or strategy. 			
Summary of strengths and weaknesses:				
High-value actions needed to fill the gaps:				
\Box Add problems or tasks that are good matches to the standards targeted in a lesson and that focus on the following areas:				
O Conceptual understanding	of the MWOTL			
O Challenging application pro	O Challenging application problems			
 Procedural and computational practice Add high-level discussion questions and instructions targeted toward building conceptual understanding. Other: 				

Overall Rating:

Overall Natilig.		
Tight Alignment	Most (four or more) of the dimensions are rated as Meets , with the remainder rated as Partially Meets. There are only a few minor revisions (or none at all) needed to improve alignment of the resource to CCR standards.	
Partial Alignment	Most (four or more) of the dimensions are rated at least as Partially Meets . Moderate revisions are needed to improve alignment of the resource to CCR standards.	
Weak Alignment	Most (four or more) of the dimensions are rated as Does Not Meet . Substantial revisions are needed to improve alignment of the resource to CCR standards.	
Summary of key strer	ngths and weaknesses:	

Notes: