Mathematics Resource Materials Filter

When considering resources and materials for Mathematics, it is important to determine the alignment to the Standards for Mathematical Practice, Critical Areas of Focus, and content standards found in the Common Core State Standards for Mathematics, their accuracy and adaptability, their instructional design, in addition to their grade level appropriateness and ease of use. This filter provides a good starting point in the evaluation of resources and materials for use in the Mathematics classroom. Recommended resources and materials are in the 2/3 range for each of the listed criteria (A-J).

A. Critical Areas of Focus and the Content Standards Alignment			
0	**1**	**2**	**3**
No evidence of alignment with the Common Core State Standards for Mathematics. The material is not at the appropriate grade level.	General alignment with the Common Core State Standards for Mathematics. The content is at the correct grade level, aligns with some of the individual standards, but does not address the full intent of the Cluster(s) and the Critical Area(s) of Focus.	Aligns with the Critical Areas of Focus and some of the specific descriptions within the Common Core State Standards for Mathematics. The material is at the correct grade level, aligns with most of the individual standards, but does not address the full intent of the Cluster(s) or the Critical Area(s) of Focus.	Aligns with the Common Core State Standards for Mathematics. The material is at the correct grade level, aligns well with the Critical Area(s) of Focus and the intent of the Clusters and Standards.
B. Standards for Mathematical Practice Development			
0	**1**	**2**	**3**
No development of the Standards for Mathematical Practice is evident.	Some development of the Standards for Mathematical Practice is evident.	Development of the Standards for Mathematical Practice is evident in the types of experiences, their implementation and evaluation.	The Standards for Mathematical Practice are a focus for development. They are an essential component of the mathematical learning addressed. Guidance is given for implementation and evaluation of their development as habits of mind for students.
C. Conceptual Understanding of Mathematics Development			
0	**1**	**2**	**3**
Little/no opportunity for developing conceptual understanding (e.g. too much breadth, insufficient time to allow depth, focuses on teaching isolated skills and procedures).	Some opportunity for developing conceptual understanding (e.g., manipulatives for modeling but still too much breadth, insufficient time to allow depth, focuses on teaching isolated skills and procedures).	Provides ideas for developing conceptual understanding (e.g., inquiry, hands-on activities, rich mathematical and contextual problems, etc., encourage thinking about the mathematics, making connections and communicating this thinking).	Conceptual understanding is essential in the development of mathematical thinking. (e.g., embraces developing conceptual understanding, developing and using strategies which then evolve into fluency with skills and procedures). Guidance is given for implementing and evaluating conceptual understanding.

D. Mathematical Accuracy			
0	**1**	**2**	**3**
Contains inaccurate mathematics content.	Mathematics content is accurate; however resources and/or links provided contain inaccurate mathematics content.	Mathematics content and resources/links provided are accurate, but is presented in a way that could promote potential misconceptions. Vocabulary may differ but is not inaccurate.	Mathematics content and resources/links are accurate. There are no potential misconceptions presented. Vocabulary may differ but is not inaccurate.
E. Reliability, Validity, Authority and Equity			
0	**1**	**2**	**3**
Content presented is invalid or unreliable. Facts presented may be biased or slanted toward a particular view, population, or outcome. Contact information and sources are missing.	Content presented can be validated, is reliable and authoritative. Contact information and sources are present. Facts presented may be biased or slanted toward a particular view, population, or outcome.	Content presented can be validated, is reliable, and authoritative. Contact information and sources are present and reputable. Bias is not present.	Content presented can be validated, is reliable and authoritative. Contact information and sources are present and reputable and recognized experts in the content area. Bias is not present.
F. Contextual Learning			
0	**1**	**2**	**3**
Real-world and/or relevant context is absent.	Content is related to a context that is relevant to students.	Content is framed in a context that is relevant to students and significant from a global perspective.	Content is framed in a context that is relevant to students and significant from a global perspective and students are required to communicate (data/findings/research) to an external audience.
G. Problem Solving and Rich Problems			
0	**1**	**2**	**3**
No rich problems or opportunities for student-led or student-designed investigations (e.g. provides lists of materials and exact procedures to follow) are provided. Students are expected to answer a set of straight-forward questions.	Hands-on activities or open-ended student questions are included; opportunities for student-led or student-designed investigations may or may not exist, (e.g. provides lists of materials and exact procedures to follow). Suggestions for student reflection are provided.	Rich problems or open-ended questions are a part of the learning process. Guidance is provided to assist teachers in introducing, leading discussions and evaluating the learning. Suggestions for student reflection and ideas for follow-up or extension are provided.	Rich problems or open-ended questions are essential to the learning process. Guidance is provided to assist teachers in introducing, leading discussions and evaluating the learning from these experiences. Suggestions for student reflection and ideas for follow-up or extension are provided. Guidance is provided to assist teachers in helping students formulate and carry out their own investigations including formally communicating, and defending their results.

H. Adaptability/limited use – easily able to be modified to meet the diverse needs of students, uses or situations			
0	**1**	**2**	**3**
Materials have a limited range of use (e.g. can only be used one time by 10 students).	Materials can be adapted for a variety of settings, uses or students.	Materials can be adapted for a variety of settings, uses or students. Guidance is provided on how to adapt the materials.	Materials can be adapted for a variety of settings, uses or students. Guidance, examples and resources are provided on how to adapt the materials.
I. Assessments-Formative and Summative			
0	**1**	**2**	**3**
Guidance for student assessment (formative and/or summative) is not provided.	Guidance for student assessment (formative and/or summative) is provided.	Guidance, tools, and resources for student assessment (formative and/or summative) are provided.	Guidance, tools, and resources for student assessment (formative and/or summative) are provided. Strategies based on the results of the assessments are provided to further increase student achievement.
J. Navigability and Appearance			
0	**1**	**2**	**3**
Appearance and style are poor quality (e.g. numerous typos, grammatical errors, incorrect word usage). If web-based: limited/no interactive materials (static), difficult to find materials, links that do not work, graphics not displayed correctly.	Appearance and style are average (e.g. a few typos, grammatical errors, incorrect word usage). If web-based: limited/some interactive materials, most links work, can locate materials, graphics are supported.	Appearance and style are good quality (e.g. no typos, grammatical errors, or incorrect word usage). If web-based: interactive materials are present, links work, materials are easy to locate, and graphics are high quality.	Appearance and style are high quality (e.g. no typos, grammatical errors, or incorrect word usage, clear and professional in appearance). If web-based: high quality interactive materials for students and teachers are present, links work, materials are very easy to locate, and graphics are high quality.