

## How SIM Content Enhancement Routines supports Higher Order Thinking

CER	How it supports HOT
<b>Clarifying</b>	Excellent reteach tool to help investigate the intricacies of a commonly misunderstood concept or even vocabulary word. "Don't confuse this with..." is a place for differentiation and student self-assessment. Students generate their own meaning through descriptions, clarifiers, real world connections and examples. Helpful with Tier 2/academic vocabulary.
<b>Concept Comparison</b>	This routine provides scaffolding that assists students in comparing and contrasting characteristics. Also, in aggregating and disaggregating information in order to construct a summary. This helps students bridge the transition from concrete to abstract thinking. Encourages teacher planning for real world/extension application. Helps students answer assessment questions as they become familiar with the vocabulary of the categories that are referenced in the question.
<b>Concept Mastery</b>	Builds student understanding of critical concepts through the analysis and identification of characteristics and non-characteristics, classifying examples, and applying this knowledge as independent thinkers. Learners benefit from comparison deeper analysis using the testing ground (6) for elements with intricate characteristics. Supports deep understanding of a big idea so students can apply it in a higher order thinking task. It is "safe" because a "wrong" answer has a place on the device. Helpful in addressing misconceptions.
<b>Framing</b>	Enables students to analyze and organize information and access the learning to apply and justify answers for the HOT questions during the extension ("E" part of the Frame). Captures all the "little bits" that kids have to put together to answer a big question. Great for scaffolding for a skill or as a pre-writing tool. Can be adapted for use with the "Cornell Way" by adding questions on the side and a paragraph summary on the back.
<b>Question Exploration Routine</b>	Looks at unpacking a Critical Question. Provides scaffolding by starting with identifying key vocabulary and/or terms, identifying supporting questions to get to the main idea of the Critical Question; and finally, it asks students to apply this main idea to the lesson being studied... and then the overall idea to the, 'real world'. Extension activities can be "real world" application. Helps teachers understand higher order taxonomy...must be at least a level 2 question. Models for students what a good answer to a complex question looks like...how to answer questions on the FSA/EOC. Supports the unpacking of word problems and can be used as a support for pre-writing.
<b>Scientific Argumentation</b>	Teaches students about claims and evidence and scaffolds them in identifying a claim and evidence, classifying the type of evidence, and evaluating the quality of evidence.
<b>Unit Organizer</b>	Self-test questions are level 2 and above questions. Unit relationships identify the higher order thinking needed to answer self-test questions. During co-construction, teacher can guide students towards higher level wording. Scaffolds teacher in planning for instruction focused on the standard instead of the information in the book. Routine use provides multiple exposures of to support mastery.