Table 3.4: An Example of Unpacking a CCSS Domain

Content Standard Cluster	Which Standards in the Cluster Are Familiar?	What's New or Challenging in These Standards?	Which Standards in the Cluster Need Unpacking or Emphasis?
Similarity, Right Triangles, and Trigonometry (G-SRT)			
Understand similarity in terms of similarity transformations.	I am completely comfortable with the definition of *similarity*. We have taught dilations as a transformation before, but we never took the time to connect it to similarity.	Using similarity transformations (new) Verifying properties experimentally (new) Using the properties of similarity transformations to establish the AA criterion for two triangles to be similar	I need to review what is meant by *transformations*. I have not taught these before. I did learn about them in a college geometry course, so I will need to review them. Also, I am not sure if I recall how they are connected to similarity.
Prove theorems involving similarity.	A criterion for two triangles to be similar Using congruence and similarity criteria to solve problems	Prove theorems about triangles: a line parallel to one side of a triangle intersects the other two proportionally (side-splitter theorem) and the Pythagorean Theorem.	I know that I am rusty on these particular items. We have not proved the Pythagorean Theorem in our geometry classes before, and now we must design experiences so that the students will be able to prove it using similarity. What will this look like? Are our students ready for proofs like these?
Define trigonometric ratios, and solve problems involving right triangles.	Defining and using trigonometric ratios as a result of similarity Examining and using the sine and cosine ratios is very familiar to me. Solving right triangles in applied problems has long been a part of our curriculum.	There is nothing new in this cluster for our team.	It will be exciting to hear about the applications my team members think we should use in this cluster.

Content Standard Cluster	Which Standards in the Cluster Are Familiar?	What's New or Challenging in These Standards?	Which Standards in the Cluster Need Unpacking or Emphasis?
Similarity, Right Triangles, and Trigonometry (G-SRT)			
Apply trigonometry to general triangles		All three of these standards are (+) standards and have not been a part of our course previously. I am most concerned with proving the Law of Sines or the Law of Cosines as I know I have not done that before.	I know I will have to learn about ways to teach these topics. I have to learn them first and then our team can look for ways to help our students learn them!