Mathematics: Categories for Analyzing Cognitive Demand

Code	Description
1	**Knowing**
	Representing
	Recognizing equivalents
	Recalling mathematical objects and properties
	Using vocabulary and notation
2	**Using Routine Procedures & Tools to Solve Problems**
	Using equipment • Using instruments, for example, measuring instruments • Using computational devices
	Performing routine procedures • Counting • Computing • Graphing • Transforming • Measuring
	Relating representations
	Describing and discussing
	Solving
	Predicting
3	**Using More Complex Procedures & Conceptual Understandings to Solve Problems**
	Using more complex procedures • Estimating • Using data • Comparing • Classifying
4	**Formulating Problems and Strategizing/Critiquing Solution Methods**
	Formulating and clarifying problems and situations
	Developing strategy
	Verifying
	Developing notation and vocabulary
	Critiquing
5	**Applying Advanced Reasoning Skills**
	Developing algorithms
	Generalizing
	Conjecturing
	Justifying and proving
	Axiomatizing