Hewlett PISA Study

Cognitive Complexity Framework: Mathematics

CRESST Mathematics Framework: Cognitive Complexity

Level	Descriptors
Level 1	• Task is primarily rote or procedural, requiring recall, recognition, or direct application of a basic concept, routine computation, algorithm or representation
Level 2	• Task requires some mental processing and more than rote application of skill, concept or procedural and/or algorithmic tasks. • Students often make decisions about how to approach the problem.
Level 3	• involves developing a solution strategy, and may have more than one possible answer • Task often requires significant departure from traditional application of concepts and skills • Solution strategy often involves working with multiple mathematical objects (numbers, expressions, equations, diagrams, graphs) or problem structures
Level 4	• Task requires extended reflection, including complex problem solving, abstract reasoning, an investigation, processing of multiple conditions of the problem, and non-routine manipulations • Task often requires extended time

Note. Webb's DOK framework (2007) as adapted by Herman, Buschang, & La Torre Matrundola (2014)