

Cognitive Complexity of the HiSET™ Exam

The HiSET™ exam is coded for cognitive complexity based on vocabulary and a frame of reference using Webb’s Depth of Knowledge (DOK)¹. Three of the four DOK levels are embedded in the HiSET test design, development, preparation and reporting. This provides a lens into cognitive complexity for both learners and educators.

	Essential Competencies	Conceptual Understanding	Extended Reasoning
Mathematics	Understand mathematical concepts or procedures	<p>Make decisions on how to approach the problem</p> <p>Specify and explain relationships between terms, properties or operations</p> <p>Perform multiple-step procedures</p>	<p>Use reasoning, use planning, draw conclusions or cite evidence to solve a problem</p> <p>Develop a strategy to connect and relate ideas to solve problems while using multiple-step procedures and a variety of skills</p>
Reading	Comprehend written text	<p>Use more complex thought processes in interpreting and inferring from text</p> <p>Determine important ideas</p>	Use critical thinking in judging, evaluating or analyzing text or in integrating or synthesizing ideas within and beyond the text
Science	<p>Identify scientific information such as definitions, terminology, principles, concepts and relationships</p> <p>Recognize fundamental components of scientific investigations</p>	<p>Understand scientific concepts and apply them to explain phenomena</p> <p>Analyze and interpret scientific information</p> <p>Make simple inferences, predictions and conclusions</p> <p>Formulate hypotheses</p>	<p>Propose solutions to scientific problems</p> <p>Make in-depth inferences, predictions and conclusions</p> <p>Evaluate the appropriateness of scientific findings, conclusions and experimental design</p> <p>Integrate ideas from various scientific disciplines and phenomena</p>

	Essential Competencies	Conceptual Understanding	Extended Reasoning
Social Studies	Read and understand social studies material such as maps, charts, graphs, cartoons and primary source documents	<p>Interpret social studies information and materials</p> <p>Apply social studies knowledge to new situations</p> <p>Distinguish between facts and opinions</p> <p>Make contrasts and comparisons</p> <p>Make simple inferences and predictions</p> <p>Identify cause and effect</p>	<p>Evaluate social studies information in order to draw conclusions, form generalizations and solve problems</p> <p>Analyze underlying meanings of social studies materials, such as recognizing author's purposes and assumptions</p> <p>Make connections among important ideas in social studies</p>
Language Arts	<p>Identify and/or correct errors in the use of language</p> <p>Recognize correct written language</p> <p>Locate information</p>	<p>Apply knowledge of sentence construction to a piece of writing</p> <p>Make basic decisions regarding research for writing</p>	Exercise judgment in researching, structuring and developing a piece of writing

¹ Webb's Depth of Knowledge is the complexity or depth of understanding required to answer or explain an assessment-related item. Norman L. Webb developed the concept of "depth of knowledge" through research in the late 1990s. Webb was a senior research scientist for the Wisconsin Center of Education Research.

Learn more about the HiSET exam at

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