

Rockwall ISD Secondary Science Assessment Guide



Level	BLOOM'S TAXONOMY – THE COGNITIVE DIMENSION						
	ō	Н	Cognitive Processes	Alternative Names	Definitions and Examples		
НІСН	10 %	20 %	Create – Put elements together to form a coherent or functional whole; reorganize elements into a new path or structure.				
			Producing	Constructing	Inventing a product. (Example: Build habitats for a specific purpose.)		
			Planning	Designing	Devising a procedure for accomplishing some task. (Example: Plan a research paper on a given historical topic.)		
			Generating	Hypothesizing	Coming up with alternative hypotheses based on criteria. (Example: Generate hypotheses to account for an observed phenomenon.)		
			Evaluate – Make judgments based on criteria and standards.				
			Critiquing	Judging	Detecting inconsistencies between a product and external criteria, determining whether a product has external consistency; detecting the appropriateness of a procedure for a given problem. (Example: Judge which of two methods is the best way to solve a given problem.)		
			Checking	coordinating, detecting, monitoring, testing	Detecting inconsistencies or fallacies within a process or product; determining whether a process or product has internal consistency; detecting the effectiveness of a procedure as it is being implemented. (Example: Determine if a scientist's conclusions follow from observed data.)		
			Analyze – Break material into its constituent parts and determine how the parts relate to one another and to an overall				
			structure or purpose.				
	50 %	%09	Attributing	Deconstructing	Determine a point of view, bias, values, or intent underlying presented material. (Example: Determine the point of view of the author of an essay in terms of his or her political perspective.)		
			Organizing	finding, coherence,	Determining how elements fit or function within a structure. (Example: Structure		
MEDIUM				integrating, outlining, parsing, structuring	evidence in a historical description into evidence for and against a particular historical explanation.)		
			Differentiating	discriminating, selecting, distinguishing, focusing	Distinguishing relevant from irrelevant parts or important from unimportant parts of presented material. (Example: Distinguish between relevant and irrelevant numbers in a mathematical word problem.)		
			Apply – Carry out or use a procedure in a given situation.				
			Implementing	using	Applying a procedure to an unfamiliar task. (Example: Use Newton's second law in situations where it is appropriate.)		
			Executing	carrying out	Applying a procedure to a familiar task. (Example: Divide a whole number by another whole number, both with multiple digits.)		
	40 %	20 %	Understand – Construc	ct meaning from instruction	nal messages, including oral, written, and graphic communication.		
			Explaining	constructing models	Constructing a cause-and-effect model of a system. (Example: Explain the causes of important 18 th century events in France.)		
			Comparing	contrasting, mapping matching	Example: Compare historical events to contemporary situations.)		
			Inferring	concluding, extrapolating interpolating, predicting	Drawing a logical conclusion from presented information (Example: In learning a foreign language, infer grammatical principles from examples.)		
7			Summarizing	abstracting, generalizing	Abstracting a general theme or major point(s). (Example: Write a short summary of the events portrayed on videotape.)		
LOW			Classifying	categorizing, subsuming	Determining that something belongs to a category (e.g., concept or principal). (Example: Classify observed or described cases of mental disorders.)		
			Exemplifying	illustrating, instantiating	Finding a specific example or illustration of a concept or principal. (Example: Give examples of various artistic painting styles.)		
			Interpreting	clarifying, paraphrasing representing translating	Changing from one form of representation (e.g., numerical) to another (e.g., verbal). (Example: Paraphrase important speeches and documents.)		
			Remember – Retrieve	relevant knowledge from l	ong term memory.		
			Recalling	Retrieving	Retrieving relevant knowledge from long-term memory. (Example: Recall the dates of important events in U. S. History.)		
			Recognizing	Identifying	Locating the knowledge in long-term memory that is consistent with presented material. (Example: Recognize the dates of important events in U. S. History.)		

Procedural Complexity Levels

Procedural Complexity Level: The greater the number of mental processing steps required by the student to answer the question, the higher the procedural complexity level.

- **HIGH**: Item includes a graphic, short reading section, map, etc. as a stimulus. The student has to infer, analyze, or summarize the stimulus and apply that to the stem or answer choices to select the correct answer. (two or more mental steps)
- **MEDIUM**: Item includes a graphic, short reading section, map, etc. as a stimulus. The student has to interpret the stimulus or pull information from it to select the correct answer. (<u>one</u> or <u>two</u> mental steps)
- LOW: Item contains only the stem and answer choices. (only <u>one</u> mental step)

	On-level	Honors
High	40 %	50 %
Medium	40 %	50 %
Low	20 %	0 %

SUMMARY

CCAs should be 10-question assessments aligned to these percentages.

On-	level		Honors	
Cognitive	Procedural		Cognitive	Procedural
10 %	40 %	HIGH	20 %	50 %
50 %	40 %	MEDIUM	60 %	50 %
40 %	20 %	LOW	20 %	0 %