Woodcock-Johnson IV® Tests of Achievement
Test Descriptions

Below are descriptions of the different tests included in the Woodcock-Johnson IV Tests of Achievement and their corresponding CHC abilities. For more detailed descriptions of the different CHC abilities, please reference page 5 of this document.

TEST	CHC ABILITY	DESCRIPTION
Test 1: Letter-Word Identification	Reading-writing (Grw)	Measures word identification skills. Initial items require the examinee to identify individual letters that appear in large type on the examinee's side of the Test Book. Remaining items demand the examinee to read aloud individual words. The examinee is not required to know the meaning of any word. The words become less frequent in English text as the examinee progresses through the test.
Test 2: Applied Problems	Quantitative knowledge (Gq)	Measures the ability to analyze and solve math problems. The examinee is required to listen to a problem, determine the appropriate procedure to solve the problem, and then execute that procedure. Items on this test can include extraneous information that require the examinee to determine the appropriate information needed to solve each question.
Test 3: Spelling	Reading-writing (Grw)	Measures spelling skills. Initial items assess prewriting skills (e.g., drawing lines, tracing letters), and the ability to form upper- and lowercase letters. As the task increases in difficulty, the examinee is asked to spell more complex words.
Test 4: Passage Comprehension	Reading-writing (Grw)	Measures the ability to use syntactic and semantic cues to identify a missing word in text. Initial items require the examinee to match a representation of a word with a picture of the actual object. The next set of items require the examinee to read a phrase and point to the picture which depicts the phrase. The remaining items require the examinee to identify a keyword that fits within the context of a given passage.
Test 5: Calculation	Quantitative knowledge (Gq)	Measures the ability to perform mathematical computations ranging from basic operations to more advanced operations (e.g., geometry, trigonometry, calculus). The calculations also test knowledge of specific concepts (e.g., negative numbers, percentages, fractions, whole numbers).

TEST	CHC ABILITY	DESCRIPTION
Test 6: Writing Samples	Reading-writing (Grw)	Measures the ability to write responses to a variety of demands. Examinee responses are reviewed based on the quality of their expression. The difficulty of this task increases as a function of passage length, vocabulary level, and complexity of the content. There is no penalization for errors in spelling, punctuation, or other basic writing skills.
Test 7: Word Attack	Reading-writing (Grw)	Measures the ability to apply phonic and structural analysis skills to the pronunciation of unfamiliar printed words. Initial items require the examinee to produce speech sounds for single letters. The remaining items require the person to read aloud nonsense or low-frequency words. The letter combinations are phonically consistent or are regular patterns in English orthography. The complexity of the nonsense words increases as the items become more challenging.
Test 8: Oral Reading	Reading-writing (Grw)	Measures story reading accuracy and prosody. The examinee must read text aloud that increases in difficulty. The examinee's performance is based on their accuracy and the fluency of their expression. Item scoring is based on the errors committed throughout the test, and examiners can document errors in the following categories: mispronunciations, omissions, insertions, substitutions, hesitations, repetitions, transpositions, and ignoring punctuation.
Test 9: Sentence Reading Fluency	Demands both reading-writing (Grw) and cognitive processing speed (Gs) abilities.	Measures reading rate. Examinees are required to read simple statements under timed conditions and decide whether each statement is true or false. Upon determining the validity of each statement, the examinee must circle Yes or No.
Test 10: Math Facts Fluency	Requires both quantitative knowledge (Gq) and cognitive processing speed (Gs).	Measures the speed of computation. The examinee is provided three minutes to solve simple addition, subtraction, and multiplication facts quickly and accurately.
Test 11: Sentence Writing Fluency	Demands both reading-writing (Grw) and cognitive processing speed (Gs).	Measures the ability to formulate and write simple sentences quickly. The examinee must write sentences that relate to a given stimulus picture and include a given set of three words. As the task progresses, the words require the formulation of more complex sentence structures.

TEST	CHC ABILITY	DESCRIPTION
Test 12: Reading Recall	Reading-writing ability (Grw) and long-term retrieval (Glr)	Demands reading comprehension and long-term retrieval skills. The examinee reads a short story silently and then retells as much of the story as they can recall.
Test 13: Number Matrices	Demands quantitative knowledge (Gq) and Fluid Reasoning (Gf) skills.	Measures quantitative reasoning as the examinee is shown matrices and must identify the missing number. Although the test is untimed, there is a general guideline of either 30 seconds or 1 minute per problem.
Test 14: Editing	Reading-writing ability (Grw)	Measures vocabulary knowledge and semantic fluency. The examinee is provided three minutes to mark two words that are associated in each row. The correct matches are words that share some relationship (e.g., synonyms, antonyms, members of the same category).
Test 15: Word Reading Fluency	Reading-writing ability (Grw) and cognitive processing speed (Gs). Demands reading-writing ability (Grw) and cognitive processing speed (Gs).	Measures vocabulary knowledge and semantic fluency. The examinee is provided three minutes to mark two words that are associated in each row. The correct matches are words that share some relationship (e.g., synonyms, antonyms, members of the same category).
Test 16: Spelling of Sounds	Reading-writing ability (Grw)	Measures spelling ability (phonological and orthographic coding skills). Initial items demand the examinee to write single letters that represent one speech sound. Remaining items require the examinee to spell nonsense words or low-frequency words presented by an audio recording. These words adhere to the regular patterns found in English spelling.
Test 17: Reading Vocabulary	Measures reading-writing (Grw) and comprehension-knowledge (Gc).	Includes two subtests: Synonyms and Antonyms. The Synonyms subtest requires reading a word and providing an appropriate synonym. The Antonyms subtest requires reading a word and providing an appropriate synonym. Item difficulty increases as the words become more complex.

TEST	CHC ABILITY	DESCRIPTION
Test 18: Science	Measures comprehension-knowledge (Gc).	Questions demand knowledge of the sciences. Items tap knowledge of anatomy, biology, chemistry, geology, medicine, and physics. Initial items require the examinee to point to the correct response. Remaining items require an oral response to prompts.
Test 19: Social Studies	Comprehension-knowledge abilities (Gc)	Measures knowledge of history, economics, geography, and psychology. Initial items require the examinee to point to the correct response. Remaining items require an oral response to prompts.
Test 20: Humanities	Comprehension-knowledge (Gc)	Items test knowledge across the domains of art, music, and literature. Initial items require the examinee to point to the correct response. Remaining items require an oral response to prompts.

Woodcock-Johnson IV® Tests of Oral Language
Definitions of CHC Abilities

Reading-Writing Ability (Grw)

The depth and breadth of declarative and procedural knowledge related to literacy and written language.

Quantitative Knowledge (Gq)

The depth and breadth of declarative and procedural knowledge related to mathematics.

Cognitive Processing Speed (Gs)

The ability to quickly perform both simple and complex cognitive tasks, particularly when measured under pressure to sustain controlled attention and concentration. Cognitive processing speed is an aspect of cognitive efficiency.

Long-term Retrieval (Glr)

The ability to store information, after it has been displaced from short-term working memory, and fluently retrieve it later in the process of thinking. This ability involves both the amount of information that can be stored and the rate and fluency with which the information can be retrieved and accessed.

Fluid Reasoning (Gf)

Includes the broad ability to reason, form concepts, and solve problems using unfamiliar information or novel procedures. It is a complex mixture of many mental operations, such as identifying relations, drawing inferences, recognizing, and forming concepts, identifying conjunctions, and recognizing disjunctions. It also requires deliberate and flexible control of attention to solve on-the-spot problems.

Comprehension-Knowledge (Gc)

Originally described as crystallized intelligence, including the depth and breadth of a person's acquired knowledge, the ability to communicate one's knowledge, and the ability to reason using previously learned experiences or procedures. This story of knowledge is primarily language-based and represents those abilities that have been developed largely through the investment of time, talent, and resources during education and general life experiences.

