

# **Reading Grade 10**

The DC-CAS is a standards-based assessment. Based on performance, each student is classified as performing at one of four performance levels: advanced, proficient, basic, or below basic. The descriptions below provide a brief summary of typical performance for each level. The skills identified in each descriptor represent, but are not all-inclusive of, the skills a student is able to demonstrate at each performance level.

## **Below Basic**

Students are able to use vocabulary skills, such as determining meanings of words when given specific context. Students are able to read some tenth grade informational and literary texts and can demonstrate a minimal understanding of main idea and details that support it, identify author's stated purpose, draw conclusions based on literal reading of text, identify differences among explicitly stated details, paraphrase a statement, summarize a simple narrative, identify the relationship between character and setting, and identify a stated detail in a poem for a specific purpose.

### Basic

Students are able to use vocabulary skills, such as using context clues to determine meanings of words and interpreting figurative language that uses simple, familiar words. Students are able to read some tenth grade informational and literary texts and can identify the main idea and author's purpose, draw conclusions based on stated details, make simple inferences, identify relationships among stated ideas, summarize a narrative poem, identify character traits and motivation, make simple predictions about characters, draw conclusions about how a character resolves a conflict, and make connections between real life and characters in texts.

## **Proficient**

Students are able to use vocabulary skills, such as using context and grammar clues to determine definitions of multiple-meaning words and distinguishing between literal and implied meanings of words. Students are able to read tenth grade, complex informational and literary texts and can identify details that support a main idea, draw and support conclusions based on text, identify and explain author's purpose, make and support inferences, respond to clarifying questions about text, analyze subtly stated relationships among ideas, identify and explain author's use of literary devices, explain how author's word choice illustrates an idea or concept, and determine how point of view and language affect reader interpretation of text.

## Advanced

Students are able to use vocabulary skills, such as determining meaning of words in challenging texts (e.g., poetry, allegory) by using context clues, analytic deduction, and prior knowledge. Students are able to read tenth grade, complex informational and literary texts and can analyze and cite text elements that support a main idea, explain author's implied purpose, synthesize concepts across text, analyze interrelationships among concepts and ideas, interpret subtle statements made by characters, analyze the theme and meaning of a literary text, interpret figurative language, and explain the implied motivations of character(s).



# **Mathematics Grade 10**

The DC-CAS is a standards-based assessment. Based on performance, each student is classified as performing at one of four performance levels: advanced, proficient, basic, or below basic. The descriptions below provide a brief summary of typical performance for each level. The skills identified in each descriptor represent, but are not all-inclusive of, the skills a student is able to demonstrate at each performance level.

### **Below Basic**

Students may be able to perform computations with decimals, perform appropriate numeric operations, not always in correct sequence, and apply linear formulas (formulae) to partially solve real world problems; may be able to identify simple patterns; may be able to identify different types of angles, and use scale drawings to represent data and use tools to determine measurements.

### **Basic**

Students perform computations with decimals and rationals having common denominators, perform appropriate numeric operations in correct sequence, and apply linear formulas (formulae) to solve real world problems; identify and extend simple patterns, evaluate simple expressions, and solve simple (one-step) equations; identify and measure different types of angles, and use scale drawings to represent data and solve measurement problems in one or two dimensions for which the solution is easily recognized and straight forward.

## **Proficient**

Students perform computations with decimals and unrestricted rationals, perform operations on numbers and variables in correct sequence, create and apply linear formulas (formulae) to solve real world problems; identify and extend patterns, evaluate expressions requiring ordered operations, and solve linear equations that may require multiple steps; use properties of parallel lines, plain polygons, and transversals to identify and determine angles in figures not drawn to scale; and use graphs, scale drawings, and histograms to represent data and solve measurement problems in one, two, or three dimensions.

## Advanced

Students perform computations with real numbers (decimals, unrestricted rationals and surds), perform operations on numbers and variables in correct sequence; create and apply linear and non-linear formulas (formulae) to solve real world problems; identify, extend, and interpolate patterns, evaluate expressions requiring ordered and embedded operations, and use a variety of methods to solve linear, non-linear, and simultaneous equations; use properties of parallel lines, plain polygons, and transversals to identify and determine angles and measures of unknown sides in figures not drawn to scale; and use graphs, properties of graphs, scale drawings, and histograms to represent data and solve measurement problems in one, two, or three dimensions where unit conversion is required.



# **Composition Grade 10**

The DC-CAS is a standards-based assessment. Based on performance, each student is classified as performing at one of four performance levels: advanced, proficient, basic, or below basic. The descriptions below provide a brief summary of typical performance for each level. The skills identified in each descriptor represent, but are not all-inclusive of, the skills a student is able to demonstrate at each performance level.

## **Below Basic**

Students at the **Below Basic** level may attempt to respond to a prompt that directs them to plan and compose a persuasive essay. The Below Basic student's response typically makes some connection to the topic given in the prompt; includes a few details or examples, but these may be weak, limited, or repetitive; has limited, if any, organization of ideas; shows little, if any, awareness of audience; has many errors in sentence structure (e.g., run-ons, fragments), grammar, usage, and mechanics, relative to the length of the response, that significantly impede readers' understanding.

### Basic

Students at the **Basic** level are able to respond in a limited way to a prompt that directs them to plan and compose a persuasive essay. The Basic student's response typically develops the topic and somewhat supports the writer's position with rudimentary, basic, or limited examples; shows some attempt by the writer to organize ideas logically, although the weak organization of details may interfere with readers' understanding; demonstrates a limited attention to audience and uses simplistic language; has multiple errors in sentence structure (e.g., run-ons, fragments), grammar, usage, and mechanics, relative to the length of the response, that impede readers' understanding.

## **Proficient**

Students at the **Proficient** level are able to respond moderately well to a prompt that directs them to plan and compose a persuasive essay. The Proficient student's response typically develops the topic adequately and supports the writer's position with one or more appropriate examples; demonstrates logical organization of ideas; uses some variety in language, which is mostly clear and appropriate; demonstrates mostly clear and correct use of grade-level sentence structure, grammar, and usage skills; has few mechanical errors (e.g., spelling, capitalization), relative to the length of the essay, that interfere with the communication of ideas.

### Advanced

Students at the **Advanced** level are able to respond effectively to a prompt that directs them to plan and compose a persuasive essay. The Advanced student's response typically develops the topic and supports the writer's position fully and completely through rich and effective details and examples; demonstrates careful, logical organization and the writer's control of ideas throughout; uses clear, descriptive language appropriately and effectively, which enhances the essay's development; demonstrates the writer's control of grade-level sentence structure, grammar, and usage skills, with some attempts at complex structures; has no mechanical errors (e.g., spelling, capitalization, punctuation) that interfere with the communication of ideas.



# **Biology**

The DC-CAS is a standards-based assessment. Based on performance, each student is classified as performing at one of four performance levels: advanced, proficient, basic, or below basic. The descriptions below provide a brief summary of typical performance for each level. The skills identified in each descriptor represent, but are not all-inclusive of, the skills a student is able to demonstrate at each performance level.

#### **Below Basic**

Students are able to use scientific thinking to identify some elements of scientific methodology (identification of problem/hypothesis formulation and prediction/performance of experimental tests/analysis of data/falsification/developing conclusions/reporting results), and select appropriate tools and technology to perform tests, collect data, analyze relationships, or display data. Students are able to use knowledge of biology to recognize the importance of water to living things and identify the major systems of the mammalian body.

#### Basic

Students are able to use scientific thinking to plan and conduct simple scientific investigations to check on previous results, select appropriate tools and technology to perform tests/collect data/analyze relationships/display data, and recognize that science discoveries can have both positive and negative implications and involve different decisions regarding ethics and allocation of resources. Students are able to use knowledge of biology to recognize that living things have many different kinds of molecules, identify the roles of plants in the ecosystem, recognize that plants have a greater problem with "unpredictable environments" because they cannot seek shelter, recognize the major systems of the mammalian body, and recognize that factors in an ecosystem cause fluctuations in population sizes.

## **Proficient**

Students are able to use scientific thinking to plan and conduct simple scientific investigations to explore new phenomena/check on previous results/verify or falsify the prediction of a theory/use a crucial experiment to discriminate between competing theories, analyze situations and solve problems that require combining concepts from more than one topic area of science and applying these concepts. Students are able to use knowledge of biology to recognize the hierarchical organization of living things from least to most complex; describe basic atomic structure and understand the basis of chemical bonding; compare and contrast the general anatomy and constituents of prokaryotic/eukaryotic cells and their distinguishing features; recognize the kingdoms in which prokaryotic/eukaryotic cells are classified; explain that most cells function best within a narrow range of temperature/pH; differentiate between the functions of mitosis/meiosis; explain the genetic basis for Gregor Mendel's laws of segregation/independent assortment; explain how hereditary information is passed from parents to offspring; describe/identify how inserting, deleting, or substituting short stretches of DNA alters a gene and recognize that mutations in the DNA sequence in or near a specific gene may/may not mutate the sequence of amino acids in the encoded protein or the expression of the gene; explain how a large diversity of species increases the chance that at least some living things will survive in the face of changes in the environment; explain that evolution builds on what already exists, so the more variety there is, the more there can be in the future; explain the process of photosynthesis; analyze the complementary activity of major body systems; and explain that ecosystems tend to have cyclic fluctuations around a state of rough equilibrium, and change results from shifts in climate, natural causes, human activity, or when a new species or non-native species appears.

### **Advanced**

Students are able to use scientific thinking to analyze complex situations and solve multiple-step problems that require combining and applying concepts from more than one topic area of science, and apply many types of mathematical relationships to scientific situations. Students are able to use knowledge of biology to explain how sorting/recombination of genes in sexual reproduction results in a vast variety of potential allele combinations in the offspring of any two parents; explain how molecular evidence reinforces and confirms the fossil, anatomical, behavioral, and embryological evidence for evolution, and provides additional detail about the sequence in which various lines of descent branched off from one another; and describe examples of how the mammalian immune system is designed to protect against microscopic organisms and foreign substances from outside the body and against some aberrant cells that arise within.