DLM® Performance Level Descriptors—Science: Biology

End-of-Instruction Model

Emerging	A student who achieves at the **emerging** performance level typically can identify organs, recognize cells, recognize changes in population, identify animals' needs, compare traits, and match species to environments. The student demonstrates knowledge of life science by • identifying major organs of the body • recognizing that organisms are composed of cells • recognizing changes in population size • identifying food and shelter needs for wildlife • comparing traits of parents and offspring • matching species to environments
Approaching the Target	A student who achieves at the **approaching the target** performance level typically can identify change, graph change, recognize relationships, identify traits that are advantageous in certain environments, and identify human activities that affect other living things. The student demonstrates knowledge of life science by • identifying changes in a data display • graphing changes in population size • recognizing relationships between population size and resources • using data to identify organisms that survive better in environments • identifying human activities that affect a species

At Target	A student who achieves at the **at target** performance level typically can identify organ function, compare data, model relationships about cells and body size, use graphical representations to explain changes in population, interpret evidence about traits of parents and offspring, identify environmental factors that affect survival, and use mathematical models to determine the effect of human actions on a species. The student demonstrates knowledge of life science by • identifying which organs work for a specific function • comparing data before and after change • modeling the relationship between the number of cells and the size of a body • using a graphical representation to explain the dependence of an animal population on other organisms for food and their environment for shelter • using evidence to show that parents and offspring may have different traits • identifying factors in an environment that require special traits to survive • using a mathematical model to determine which human actions harm or help a species
Advanced	A student who achieves at the **advanced** performance level typically can explain organ functions, model organ systems, collect data from an investigation, model growth, explain population changes over time, explain relationships between traits of parents and offspring, explain how traits help animals survive, interpret population data sets, and evaluate environmental strategies for protecting species. The student demonstrates knowledge of life science by • explaining how different organs carry out essential functions • modeling the organization and interaction of organs into systems • collecting data from an investigation to show how organisms react to changes • using a model to show how growth occurs when cells multiply • using a graphical representation to explain changes over time in population size for an animal species • defending why reproduction may or may not result in offspring with different traits • explaining how the traits of particular species allow them to survive in their environments • interpreting data sets to identify an advantageous heritable trait • evaluating a strategy to protect a species

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