

Big Idea	LG #	Learning Goal
BI1: Basic Needs of Organisms	BI1LG1	Plants and animals need air and water; plants also need light and nutrients; animals also need food and shelter.
	BI1LG2	Different species have different preferred conditions for growth.
	BI2LG1	Organisms are born, live, and die.**
BI2: Life Cycle - Birth and Death Cycle	BI2LG2	Some members of the same species can survive (a specific event) even though every individual in the group eventually dies.
	BI2LG3	There are several stages of the plant life cycle: seed, seedling, growing plant, flower, pollination, seedpod, seed dispersal.
	BI2LG4	Plants make many seeds, most of which do not survive which is equivalent to saying that many more organisms die than survive.
	BI2LG5	All organisms have a finite lifetime and that populations (interbreeding groups of organisms) will survive only if their constituent organisms have enough offspring over time to compensate for the number of deaths.**
	BI2LG6	Students should demonstrate an ability to reason about the behavior of populations by extrapolating from the behavior of individual organisms.**
BI 3: Organisms and Their Environment	BI3LG1	An organism thrives in specific environments that match its specific needs.
	BI3LG2	Selection based on water or sunlight would lead a population (not an individual) of plants to migrate from one area to another.
BI 4: Classification of Organisms	BI4LG1	Plants and animals can be classified into species and other types of groups based on the characteristics they share.**
BI 5: Interspecific Differences	BI5LG1	There are differences between species.**
	BI6LG1	Organisms with similar needs compete with one another for resources.
BI 6: Interactions between Species	BI6LG2	Animals obtain energy and resources by eating other animals and plants. Plants produce their own food.
	BI6LG3	An ecosystem is a collection of interacting organisms, as well as their physical environment.
	BI6LG4	Other plants and animals, as well as the environment, can affect the survivability of plants and animals.
	BI7LG1	Individuals of the same species may differ.
BI 7: Intra-specific differences	BI7LG2	Not all offspring from the same parents look alike, even with respect to inherited traits.
	BI7LG3	Purposeful selection of certain traits over many generations can result in substantial changes in the physical characteristics of organisms in a population.**
	BI8LG1	Species are adapted to their environments. If the environment changes only certain species survive.
BI 8: Adaptation/ Evolution	BI8LG2	Organisms with traits best suited to their environment have better chances of survival.
	BI8LG3	Species adapt to changes in their environment.
	BI8LG4	Those organisms carrying traits that are better suited for a particular environment will have more offspring.
	BI8LG5	Selection pressure could lead to a change in the characteristics of a population.
	BI8LG6	Adaptation requires both variability and selection pressure.
	BI8LG7	Given an understanding of the needs of a given organism, students should be able to identify particular physical traits that would help it to survive in a given environment.
	BI8LG8	Students should be able to reason backward from traits to the environment in which those traits might be useful for survival.
	BI 9: Heritability of Traits	BI9LG1
BI 10: Reproduction	BI9LG2	Some traits are inherited and some traits are not inherited.
	BI10LG1	Organisms have offspring.
	BI10LG2	Without reproduction the species cannot continue.
BI 11: Descent with modification	BI10LG3	Only members of the same species can have viable fertile offspring.
	BI11LG1	Species evolve from common ancestors.
	BI11LG2	Different species could arise from one species if different groups had different selection pressures.

**No associated items included in the assessment