

Science DesCartes: General Science - Biology

Skills: Understand the Theory of Biological Evolution

Students:	DesCartes Skills: (Highlight the skills related to your chosen standard/concept)
	<p>RIT 231-240:</p> <ul style="list-style-type: none"> • Classifies an organism as a fungus, based on observable or listed characteristics • Recognizes characteristics of echinoderms • Classifies animals to phylum platyhelminthes • Describes assumptions of the theory of evolution (e.g., species vary, tendency of species to produce more offspring than the environment will support) • Recognizes that gravity can affect the growth of plants
	<p>RIT 221-230:</p> <ul style="list-style-type: none"> • Classifies taxonomic groups of organisms as vertebrates and invertebrates • Recognizes characteristics of mollusks • Classifies animals to the phylum mollusca • Classifies animals to phylum cnidaria • Describes characteristics of protists • Classifies organisms as protists • Classifies organisms into a hierarchical structure based on observable characteristics • Describes the hierarchical structure of the five kingdom classification system • Recognizes factors that allow speciation to occur • Recognizes examples of mimicry • Evaluates survival of organisms in particular environmental conditions • Explains how a given form of an organism may be more likely to survive in a particular ecosystem, causing a change in the abundance of that form of the organism within that population • Assesses features of organisms (e.g., appendages, reproductive rates, camouflage, defensive structures) for their competitive potential • Identifies responses in organisms to external stimuli found in the environment (e.g., the presence or absence of light)
	<p>RIT 211-220:</p> <ul style="list-style-type: none"> • Describes characteristics of arthropods • Classifies organisms as arthropods (based on external characteristics) • Classifies taxonomic groups of organisms as vertebrates and invertebrates • Classifies animals to phylum arthropoda • Describes characteristics of the five kingdoms • Compares characteristics of organisms based on their position within the five kingdom classification hierarchy • Describes characteristics of eubacteria • Describes the process of classification of living things • Predicts how variations provide an advantage in survival and reproduction • Defines a gene pool as the collection of inheritable genes in a population • Describes how the structure of a plant or

	<p>animal complements the environment in which it is found</p> <ul style="list-style-type: none"> • Explains how an organism's body structures allow it to survive in a given environment • Assesses features of organisms (e.g., appendages, reproductive rates, camouflage, defensive structures) for their adaptive potential
	<p>RIT 201-210:</p> <ul style="list-style-type: none"> • Describes structures that allow an organism to obtain information from its environment • Recognizes that examining the structural characteristics of organisms can help one determine the environment in which an organism lives • Describes characteristics of fungi (e.g., shape, structure, abundance, habitat) • Classifies organisms (using common names) as vertebrates and invertebrates • Classifies animals as amphibians • Classifies animals as warm-blooded or cold-blooded • Compares characteristics of mammals • Compares characteristics of birds • Describes characteristics of reptiles • Describes characteristics of insects • Describes characteristics of amphibians • Explains what criteria must be met for an animal to be classified as a vertebrate • Compares characteristics of insects • Recognizes characteristics of amphibians • Classifies an unknown animal as a reptile, based on listed characteristics • Classifies organisms by their internal characteristics • Recognizes biological evolution as a type of change over time • Describes how the present form and function of an organism could have evolved from prior form and function • Compares adaptations of plants and animals in different biomes • Infers that living things must be adapted to their environment to be able to survive • Assesses features of organisms (e.g., appendages, reproductive rates, camouflage, defensive structures) for their survival potential • Predicts how light will affect the growth of a plant
	<p>RIT 191-200:</p> <ul style="list-style-type: none"> • Explains how physical characteristics of organisms help them to survive in their environments and reproduce • Explains how physical features of organisms help them to survive in their environments • Recognizes that living organisms can be classified using different characteristics • Recognizes characteristics of vertebrates • Recognizes characteristics of invertebrates • Compares characteristics of mammals • Describes characteristics of mammals • Recognizes characteristics of reptiles • Describes characteristics of reptiles • Describes characteristics of fish

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	<ul style="list-style-type: none"> • Describes characteristics of insects • Classifies an unknown animal as an amphibian, based on listed characteristics • Classifies organisms by their external characteristics • Defines classification • Describes the concept of extinction • Gives examples of extinct organisms • Recognizes that biological adaptations include structural, behavioral, or physiological changes • Describes structural adaptations that allow an organism to survive in a particular environment • Explains how behavioral characteristics of organisms help them to survive in their environment • Explains how the specific adaptations of an organism allow it survive in a particular environment • Recognizes that camouflage allows an organism to blend in with its surroundings • Describes how light affects the growth of plants
	<p>RIT 181-190:</p> <ul style="list-style-type: none"> • Explains how physical characteristics of organisms help them to survive in their environments and reproduce • Gives examples of features that help plants and animals survive in different places • Classifies commonly-known organisms (e.g., cat, dog, apple) based on external characteristics • Groups organisms based on similarities • Sorts living and non-living things using different characteristics • Classifies an unknown animal as a mammal, based on listed characteristics • Classifies major groups of organisms using the five kingdom system • Describes how environmental changes cause species to evolve over time, thus producing new species
	<p>RIT 171-180:</p> <ul style="list-style-type: none"> • Explains how physical characteristics of organisms help them to survive in their environments and reproduce • Recognizes similarities and differences in diverse species • Groups organisms based on similarities • Classifies animals as mammals • Classifies an unknown animal as a fish, based on listed characteristics • Describes behavioral adaptations (terminology not used) that allow an organism to survive in a particular environment • Compares features of organisms (e.g., appendages, reproductive rates, camouflage, defensive structures) for their adaptive potential
	<p>RIT Below 171:</p> <ul style="list-style-type: none"> • Classifies animals as mammals • Recognizes characteristics of birds

Lesson Title:

Standard/Concept for All:

Introduction: (Get Attention; Connect to Prior Knowledge)

For Students Ready for a Challenge:

Lesson/Activity:

Resources:

Means of Assessment:

For Most Students:

Lesson/Activity:

Resources:

Means of Assessment:

For Students Needing Extra Support:

Lesson/Activity:

Resources:

Means of Assessment:

Closure/Summary for All:

