BUTTERFLY PAVILION

Field Trip Class Programs

Descriptions and Curriculum Standards



Amazing Adaptations

Ages: 2nd - 5th Grade

In this engaging class, students will unveil the incredible world of invertebrate adaptations through observations of live animals, specimens, and models, uncovering how these features help animals to not only survive but thrive in their unique habitats.

Curriculum Standards Supported

Colorado Science Standards

- SC.2.2.1. Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding how living systems interact with the biotic and abiotic environment.
- SC.2.2.2. Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding how natural selection drives biological evolution accounting for the unity and diversity of organisms.
- SC.3.2.1. Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding how individual organisms are configured and how these structures function to support life, growth, behavior and reproduction.
- SC.3.2.2. Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding how living systems interact with the biotic and abiotic environment.
- SC.3.2.3. Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding how genetic and environmental factors influence variation or organisms across generations.
- SC.4.2.1. Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding how individual organisms are configured and how these structures function to support life, growth, behavior and reproduction.
- SC5.2.1. Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding how living systems interact with the biotic and abiotic environment.

Curriculum Standards Supported (continued)

Next Generation Science Standards

- 3-LS2-1. Construct an argument that some animals form groups that help members survive.
- 3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.
- 3-LS3-1. Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.
- 3-LS3-2. Use evidence to support the explanation that traits can be influenced by the environment.
- 3-LS4-2. Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.

Butterfly Buddies

Ages: PreK - 1st Grade

In this interactive class, students will learn about butterflies and their remarkable life cycles. Watch your students spread their wings and discover the wonders of metamorphosis!

Curriculum Standards Supported

Colorado Science Standards

- SC.P.2.1. Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding how individual organisms are configured and how these structures function to support life, growth, behavior and reproduction.
- SC.K.2.1. Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding how individual organisms are configured and how these structures function to support life, growth, behavior and reproduction.
- SC.1.2.1. Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding how individual organisms are configured and how these structures function to support life, growth, behavior and reproduction.

Curriculum Standards Supported (continued)

Next Generation Science Standards

- K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.
- K-ESS3-1. Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live.
- 1-LS1-2. Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.
- 1-LS3-1. Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.

Life Cycles

Ages: K - 3rd Grade

In this investigative class, student scientists are challenged to use their senses to observe and interact with three live animals to solve the mystery of their connection - metamorphosis!

Curriculum Standards Supported

Colorado Science Standards

- SC.K.2.1. Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding how individual organisms are configured and how these structures function to support life, growth, behavior and reproduction.
- SC.1.2.1. Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding how individual organisms are configured and how these structures function to support life, growth, behavior and reproduction.
- SC.1.2.2. Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding how genetic and environmental factors influence variation of organisms across generations.
- SC.2.2.2. Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding how natural selection drives biological evolution accounting for the unity and diversity of organisms
- SC.3.2.1. Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding how individual organisms are configured and how these structures function to support life, growth, behavior and reproduction.

Curriculum Standards Supported (continued)

Next Generation Science Standards

- K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.
- 1-LS1-2. Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.
- 1-LS3-1. Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.
- 3-LS1-1. Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death

Octo-Powers

Ages: 2nd - 5th Grade

In this engaging class, students will explore the unique octopus adaptations that make them one of the most fascintating animals in the ocean. Students will also have the chance to test their problem-solving skills to see how they match up to octopus intelligence!

Curriculum Standards Supported

Colorado Science Standards

- SC.2.2.1.6: Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding how living systems interact with the biotic and abiotic environment.
- SC.3.2.1.5: Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding how individual organisms are configured and how these structures function to support life, growth, behavior, and reproduction.
- SC.3.2.3.7: Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding how genetic and environmental factors influence variation of organisms across generations.
- SC.3.2.3.3 GLE: Different organisms vary in how they look and function because they have different inherited information; the environment also affects the traits that an organism develops.
- SC.3.2.5.5 GLE: Sometimes differences in characteristics between individuals of the same species provide advantages in survival and reproduction.
- SC.4.2.1.1 GLE: Organisms have both internal and external structures that serve various functions.

Curriculum Standards Supported (continued)

Next Generation Science Standards

- 2-LS4-1: Make observations of plants and animals to compare the diversity of life in different habitats.
- 3-LS3-2: Use evidence to support the explanation that traits can be influenced by the environment.
- 3-LS4-2: Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.
- 3-LS4-3: Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.
- 4-LS1-1: Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.
- 4-LS1-2: Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.

Pollinator Pals

Ages: 1st - 5th Grade

This interactive class introduces learners to the wide variety of animals that pollinate our plants and keep our planet healthy. Students will learn what pollination is, what it's important, and how we can support our pollinator pals as they support us.

Curriculum Standards Supported

Colorado Science Standards

- SC.1.2.1: 5. Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding how individual organisms are configured and how these structures function to support life, growth, behavior and reproduction. GLE: 1. All organisms have external parts that they use to perform daily functions.
- SC.2.2.1: 6. Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding how living systems interact with the biotic and abiotic environment. GLE: 1. Plants depend on water and light to grow and on animals for pollination or to move their seeds around.

Curriculum Standards Supported (continued)

- SC.3.2.2: 6. Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding how living systems interact with the biotic and abiotic environment. GLE: 2. Being part of a group helps animals obtain food, defend themselves and cope with changes.
- SC.4.2.1: 5. Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding how individual organisms are configured and how these structures function to support life, growth, behavior and reproduction. GLE: 1. Organisms have both internal and external structures that serve various functions.

Next Generation Science Standards

- 2-LS4-1: Make observations of plants and animals to compare the diversity of life in different habitats.
- 3-LS2-1: Construct an argument that some animals form groups that help members survive.
- 3-LS4-3: Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.
- 3-LS3-1. Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.
- 3-LS3-2. Use evidence to support the explanation that traits can be influenced by the environment
- 4-LS1-1. Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

Spidey Friends

Ages: K - 5th Grade

This engaging class introduces students to the fascinating world of spiders by exploring their features, eating habits, and senses. Students will play interactive games while discovering what makes these eight-legged friends so amazing.

Curriculum Standards Supported

Colorado Science Standards

- SC20-GR.2-S.2-GLE.2 A range of different organisms live in different places.
- SC09-GR.2-S.2-GLE.2 Each plant or animal has different structures or behaviors that serve different functions.
- SC09-GR.3-S.2-GLE.1 The duration and timing of life cycle events such as reproduction and longevity vary across organisms and species.
- SC20-GR.4-S.2-GLE.1 Organisms have both internal and external structures that serve various functions.

Next Generation Science Standards

- 2-LS4-1 Make observations of plants or animals to compare the diversity of life in different habitats.
- 3-LS1-1 Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.
- 4-LS1-2 Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.

What's that Bug?

Ages: 3rd - 8th Grade and 9th - 12th

This hands-on course ignites young scientists' curiosity as they sharpen their observationals skills and harness valuable resources to identify invertebrates. Watch your students take on the role of bug detectives, unraveling the secrets of classification.

The 9th - 12th grade version expands on the history of classification and how it has changed as technology has evolved and poses more challenging taxonomy conundrums.

Colorado Science Standards

- SC.3.2.1.1 GLE: Organisms have unique and diverse life cycles.
- SC.3.2.3.3 GLE: Different organisms vary in how they look and function because they have different inherited information; the environment also affects the traits that an organism develops.
- SC.3.2.5.5 GLE: Sometimes differences in characteristics between individuals of the same species provide advantages in survival and reproduction.
- SC.4.2.1.1 GLE: Organisms have both internal and external structures that serve various functions.
- SC.MS.2.2.2 GLE: Organisms reproduce, either sexually or asexually, and transfer their genetic information to their offspring.

Curriculum Standards Supported (continued)

- SC.MS.2.8.8 GLE: Heredity explains why offspring resemble, but are not identical to, their parents and is a unifying biological principle. Heredity refers to specific mechanisms by which characteristics or traits are passed from one generation to the next via genes.
- SC.MS.2.10.10 GLE: Genetic variations among individuals in a population give some individuals an advantage in surviving and reproducing in their environment.
- SC.MS.2.12.12 GLE: Biodiversity is the wide range of existing life forms that have adapted to the variety of conditions on Earth, from terrestrial to marine ecosystems.
- SC.HS.2.8.8 GLE: The characteristics of one generation are dependent upon the genetic information inherited from previous generations.
- SC.HS.2.9.9 GLE: Variation between individuals results from genetic and environmental factors.
- SC.HS.2.10.10 GLE: Evidence of common ancestry and diversity between species can be determined by examining variations including genetic, anatomical, and physiological differences.

Next Generation Science Standards

- 3-LS3-1: Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.
- MS-LS1-5: Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.
- MS-LS4-4: Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment.
- HS-LS4-1: Communicate scientific information that common ancestry and biological evolution are supported by multiple lines of empirical evidence.

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