BIRDS ON THE BRINK SCIENCE ENRICHMENT GUIDE FOR GRADES K - 6

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ABOUT US

Birds on the Brink Sanctuary (BOTB) is a forever home for birds and other living beings on the endangered or threatened list. Our facility and educational programs support the Georgia Standards of Excellence in the areas of Science. We offer guided fieldtrips for school groups, homeschoolers, and camps with diverse offerings for grades K through 12. We are confident that if we can "Excite a Child's Curiosity" to discover, imagine, explore, and express their experience, we would have helped awaken their potential.

OUR SANCTUARY

Bentley's Butterfly Garden:

Our butterfly garden pollinator habitat is where students can learn about Georgia's magnificent native butterflies. Our habitat seasonally hosts real butterfly eggs, caterpillars, chrysalises, and butterflies. Students will learn about the following related topics:

- A butterfly's life cycle.
- Pollinators' host plants.
- Endangered and threatened butterfly species such as the Monarch.

Macaw Parrots Rainforest Flight:

Students can view Macaw parrots in motion as they fly in our state-of-the-art forty foot flight area. Students will learn about:

- Exotic birds and their natural habitats.
- How parrots forage, sleep, and play to bust boredom.
- Species of exotic birds that are extinct.

Sarah's Place:

A backyard located in our Science Discovery Center illustrating how butterflies, birds, and bees see the world. Through hands-on exploration, students can find a world of animals that we cannot usually see. Giant sculptures depict the life cycle of a butterfly and help young children visually understand each life stage. Additional topics covered are:

- Plants Native to Georgia.
- Endangered Georgia flora and fauna, such as the Giant Oak and bats.
- How to help our endangered bees and butterflies.

OUR SANCTUARY (CONT.)

The Hatch Hut:

Located in our Science Discovery Center, our Hatch Hut teaches students about Animal, Earth, and Space Science using the latest technology. Through Augmented Reality, Virtual Reality, High Definition 3-D, and Artificial Intelligence, students will learn about various topics including:

- The Amazon Rainforest
- Animal Ecosystems
- Animal Evolution and Extinction
- Caves and Caverns
- Stars and Planets

Magic Rocks Display:

Our Fluorescent Rock Area is where students will discover, under a dark tent, the world of glowing minerals. Our mineral rock expert and guide will teach students all about:

- Glowing minerals and why they fluoresce.
- How to discover fluorescent minerals by using short, long, and medium light waves.
- The 4 types of luminescent characteristics in minerals, such as phosphorescent (glow in the dark).

Odd Couple Pavilion:

The Odd Couple Pavilion is where we host live animal interactions and showcase Fiona and Gerty, our beautiful Ambassador Parrots. Children have the option to just pet a parrot or have one perch on their arm. Students will discover:

- The brain power of parrots - as Gerty shows her favourite tricks.
- How birds use their body parts to see, grasp objects, fly and find food
- The beautiful places around the world where parrots like Fiona live and have evolved.

BIRDS ON THE BRINK SUPPORTS THE GSE FOR KINDERGARTEN IN THE FOLLOWING AREAS.

BENTLEY'S BUTTERFLY GARDEN

Topic: Living and Non-Living

Performance Expectation for GSE SKL1.

- Obtain, evaluate, and communicate information about how organisms (alive and not alive) and non-living objects are grouped.
- Students will explore the characteristics of living things and apply their understanding to design a safe place for bees and butterflies to live.

Topics: Soil, Rocks, Water, and Air

Performance Expectation for GSE: SKE2.

- Obtain, evaluate, and communicate information to describe the physical attributes of earth materials (soil, rocks, water, and air).

ESS3.A Natural Resources

- Living things need water, air, and resources from the land, and they try to live in places that have the things they need. Humans use natural resources for everything they do.

Topics: Day and Night Sky and Organisms

Performance Expectation for GSE: SKL2

- Obtain, evaluate, and communicate information to compare the similarities and differences in groups of organisms.

LS1.B Growth and Development

- Plants and animals have predictable characteristics at different stages of development. Plants and animals grow and change. Adult plants and animals can have young.

Topics: Living Organisms and Non-Living Objects

LS4.C Adaptations

- Living things can survive only where their needs are met.

LS4.D Biodiversity and Humans

- There are many different kinds of living things in any area, and they exist in different places on land and in water.

Topics: Motion (based on physical attributes)

PS2.A Forces and Motion

- Objects pull or push each other when they collide or are connected.
- Pushes and pulls can have different strengths and directions.
- Pushing or pulling on an object can change the speed or direction of its motion and can start or stop it.

LS1.A Structure and Function

- All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive, grow, and produce more plants.

Topics: Living Organisms and Non-Living Objects

Performance Expectation for GSE: SKL1.

- Obtain, evaluate, and communicate information about how organisms (alive and not alive) and non-living objects are grouped.
- Students will explore the characteristics of living things and apply their understanding to design a safe place for bees and butterflies to live.

LS1.B Growth and Development of Organisms

LS1.C Organization for Matter and Energy Flow in Organisms

- All animals need food to live and grow.
- Plants need water and light to live and grow.

LS2.A Interdependent Relationships in Ecosystems

- Animals can move around, but plants cannot.
- Living things can survive only where their needs are met.

Topics: Soil, Rocks, Water, and Air

- Plants and animals (including humans) depend on the land, water, and air to live and grow.

Topics: Day and Night Sky and Organisms

Performance Expectation for GSE: SKL2

- Obtain, evaluate, and communicate information to compare the similarities and differences in groups of organisms.

LS1.A Structure and Function

- All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive, grow, and produce more plants.

HATCH HUT (APPLIED TECHNOLOGY)

Topics: Day and Night Sky and Organisms

Performance Expectation for GSE: SKE1

- Obtain, evaluate, and communicate information about time patterns (day to night, and night to day) and objects (sun, moon, and stars) in the day and night sky.

ESS1.A Universe and Its Stars

- Patterns of the motion of the sun, moon, and stars in the sky, can be observed, described, and predicted.

ESS1.C History of the Planet Earth

- Some events on Earth occur in cycles, like day and night**.**

Topics: Living Organisms and Non-Living Objects

LS4.C Adaptations

- Living things can survive only where their needs are met.

LS4.D Biodiversity and Humans

- There are many different kinds of living things in any area, and they exist in different places on land and in water.

Performance Expectation for GSE: SKE1

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MINERAL ROCKS EXPLORATION AREA

Topics: Soil, Rocks, Water, and Air

Performance Expectation for GSE: SKE2.

- Obtain, evaluate, and communicate information to describe the physical attributes of earth materials (soil, rocks, water, and air).

ESS2.B Earth's Systems

● Rocks, soils, and sand are present in most areas where plants and animals live.

LIVE ANIMAL INTERACTIONS

Topics: Living Organisms and Non-Living Objects

LS4.C Adaptations

● Living things can survive only where their needs are met.

LS4.D Biodiversity and Humans

● There are many different kinds of living things in any area, and they exist in different places on land and in water.

Topics: Day and Night Sky and Organisms

LS1.A Structure and Function

● All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive, grow, and produce more plants.

LS1.B Growth and Development

● Plants and animals have predictable characteristics at different stages of development. Plants and animals grow and change. Adult plants and animals can have young.

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