



K-5 Everglades Champion Schools

APPLICATION RESOURCES

Category II. Indicator B. Interdisciplinary Approach

A reference document designed to help with navigating the K-5 Everglades Champion Schools application process.

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Everglades Interdisciplinary Approach

Applies to Champion School Evaluation Criteria - Category II, Indicator B

The purpose of this indicator, *Everglades Interdisciplinary Approach*, while not mandatory, is for educators to integrate Everglades-themed interdisciplinary lessons beyond the grade-specific Teacher Toolkit and/or Everglades projects that are implemented across two or more disciplines. These projects should focus on Everglades conservation or help students build upon and enhance awareness of the Everglades.

Learning through Everglades-focused interdisciplinary projects that are engaging, innovative, and relevant, promotes student engagement through active learning in a way that their project may make an impact on the local and/or global community.


The K-5 Everglades Champions Program would like to see at least 1 Everglades-focused interdisciplinary project/lesson to be implemented at each grade level. Your school earns more points for the percentage of students participating.

If a grade level implements more than one per grade level, then those efforts should be included in the **Category IV. Everglades Extensions: Above and Beyond** because your school went beyond the scope of this indicator.

Helpful Tip: Teachers may modify and implement *Everglades Toolkit Lessons* from grades 6-12, to be interdisciplinary for this indicator. They can not be from the K-5 Toolkit since they are already classified under the first indicator of this category.

The possibilities are endless for this indicator but we've provided some project examples for each grade level to get the creative juices going.

**Note-Champion Schools are not limited to the projects listed below, they are just examples of ways to integrate Everglades projects across multiple disciplines or subject areas.*



EVERGLADES SAFARI KINDERGARTEN PROJECTS



- Kindergarten students are encouraged to go outside in an outdoor learning space (butterfly garden, schoolyard, or virtual) and discuss the different plants and animals that they see. They can also take pictures, draw what they observe, and use their senses. What do they hear? Smell? Feel? Discuss with students what an adaptation is, special body parts that help animals survive, and talk about how animals use these special body parts to live in the Everglades. When back in the classroom, or virtual classroom, have students draw pictures of these animals and label their special body parts or adaptations. Students can also use a digital drawing app. Over the next few days, have students use playdough, paper mache, dioramas, or draw pictures of their animals with these special body parts and put them all together in an Everglades showcase. Display student work to other classes, parents, or the rest of the school.
 - Science Process Skills (observing)
 - Art/Photography
 - Technology
- All classes can work together to create a large Everglades mural at school. Each Kindergarten class is responsible for a habitat of the Everglades, and students in each class have to work together to decide what plants and animals live in that habitat and why. Teachers can help students do research about what colors the animals are, and how this might help with camouflage, as well as the size and shape of the animal and if it lives in water or in the trees. The research may be used to create informative signage for the mural. Students can measure components of their mural such as the size of each plant or animal and compare it to the actual size.
 - Science Research Skills
 - Art
 - Math

HABITAT HEROES FIRST GRADE PROJECTS



- First graders can work together to collect trash: candy wrappers and bottle caps, around campus over the course of a few weeks in order to create an Everglades-themed art piece. For example- if they collect and weigh recycled green bottles or cans, they can use it to create an American alligator that lives in the Everglades. They can even use more recycled materials to create the alligator hole that the alligator lives in. Teachers are encouraged to take pictures throughout this project and share them with the school and parents through newsletters and social media.

**Note - It is important to emphasize safety protocols when collecting and handling recycled material/litter.*

- Art
 - Science
 - Technology
 - Math
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- As an extension to the book, *If I Had a Wish for Water*, students can conduct an investigation to determine how much water a leaky faucet wastes in a day. Students can measure how much water leaks each day and compare that to something they do in their everyday lives: showering, brushing their teeth, etc. Students are then encouraged to create a visual project, write a song or play, etc. about ways they can save water and how saving water protects the Everglades.
- Language Arts
 - Science
 - Math
 - Art

HABITAT HEROES FIRST GRADE PROJECTS (CONT.)



- Habitat restoration: beach, river, lake, forest, or campus cleanup. Students will learn how they can be their own habitat heroes. After learning about how wind can carry trash and plastic into our oceans and Everglades ecosystems, students are encouraged to create a wearable item that is upcycled or repurposed and present it in an Everglades-focused fashion show. Students are encouraged to include a written awareness message or informative statistic to educate their audience (ex.500 plastic bags = 1 shopper per year).
 - Science
 - Engineering
 - Art



KEYSTONE SPECIES SECOND GRADE PROJECTS



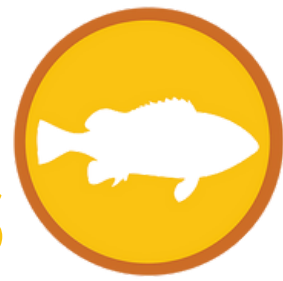
- What are the keystone species or indicator species of the Everglades? Students can work independently or in groups to research keystone or indicator species of the Everglades. Students are then encouraged to present their findings in a fun and interactive way with the class or another authentic audience. Suggested presenting ideas may include, but are not limited to creating a skit, PowerPoint, diorama, comic book, or even a brochure advertising the special skills of a keystone or indicator species.
 - Science research
 - Art/Drama
 - Technology
- After completing the lesson *Everglades Seasons*, students can design and build their own alligator holes. Depending on how many days the students have, they can either make a true-to-scale model alligator hole using larger props like in a set design or create a smaller alligator hole using paper mache and playdough. If possible, they can also use technology such as Minecraft to create an alligator hole habitat online. Then students can use a ruler and other various measuring tools to measure components of the alligator hole, like the length of an adult alligator or the distance between objects.
 - Science
 - Art
 - Math
 - Technology

BOTANY & BEYOND THIRD GRADE PROJECTS



- After completing the lessons in third grade and learning about the flora and fauna of the Everglades, this is a great time to start an ongoing project about native plants that grow in your area, as well as native plants found in the Everglades. Students can participate in a school or community garden project, where they plant native plants, but as a class, they are encouraged to determine if each plant is flowering vs. non-flowering and do research on the best way to plant and care for it. If the school has any hydroponic or aquaponic systems, students are encouraged to study how the nitrogen cycle influences these engineered systems. Students can brainstorm how they may be able to improve these systems and design and measure their improvements. Students can share what they learned with the school by creating educational signage or in a garden presentation.
 - Science
 - Engineering
 - Technology
 - Math
- Similar to the high school lesson *Design a Perfect Beast*, students will take what they have learned about animals and habitats in the Everglades and design a new animal that is well adapted to live in a specific habitat of the Everglades. Students will have to identify things such as habitat location, size, and physical adaptations of their new animals. Teachers are encouraged to showcase student work with the greater school community. Some examples include: putting together a handbook, making a collage, postcard, flyer, puzzles or trivia games, video, or 3D model of their creation.
 - Science
 - Engineering
 - Technology
 - Art

SPECIES SURVIVAL FOURTH GRADE PROJECTS



- As an extension to the 4th-grade lesson, *Wanted Alive!*, students can organize a school-wide event that brings awareness and conservation efforts to the school's community to help save an endangered or threatened species of the Everglades. They can create promotional videos and posters, 3-D art pieces, poetry books, school play/screenplays, school newspaper articles, raise money for a specific cause, and even write letters to government officials about how and why we should protect the threatened or endangered species in the Everglades.
 - Science
 - Social Studies
 - Technology
 - Language Arts/Writing
- Students can engineer a solution to a human problem or challenge based on biomimicry (*imitation of the living*) of species of the Everglades. For example, velcro was invented based on observation of the hooks implemented by some plants for the propagation of their seeds via an animal's coat. Before engaging in the biomimicry challenge, students can explore the natural environment looking for interesting plant and animal adaptations, and conduct careful observations to understand the structures and functions of different organisms that may be in their schoolyard, backyard, or a nearby park. Students can share their final project in a nature gallery activity/event at their school.
 - Science Research
 - Engineering
 - Math
 - Technology
 - Language Arts/Writing

WILDLIFE IN TROUBLE FIFTH GRADE PROJECTS



- As an extension to the lesson *Incredible Shrinking Habitat*, students can separate into two groups to take on different stakeholder perspectives of the habitat loss or degradation problem affecting Florida panthers. One group of students will be landowners in the Everglades with livestock and the other will be government officials trying to protect the Florida panther. Students will research key points that can support and rationalize their group's perspective. Students can conduct a debate or mock trial presenting their case. The trial may be recorded in order to share with the rest of the school.
 - Science
 - Social Studies
 - Technology
 - Language Arts
- Students can learn more about the illegal pet trade and the history of how these animal and plant species were introduced to Florida resulting in invasive species affecting the food webs of the Everglades. Students are encouraged to use the information on what they have learned and create posters or advertisements against illegal pets, and what others can do if they see an invasive species. Invasive species may also include plants that are introduced to a region (ex. Brazilian pepper).
 - Science
 - Social studies
 - Art