UF CPET

FFL Principle 5- Attracting Wildlife: Landscape Architects
Middle School

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Program Type: In Class Activity	**Duration:** ~2hrs

Standards:

SC.7.L.17.1: Explain and illustrate the roles of and relationships among producers, consumers, and decomposers in the process of energy transfer in a food web.

SC.7.L.17.2: Compare and contrast relationships among organisms, including mutualism, predation, parasitism, competition, and commensalism.

SC.7.L.17.3: Describe and investigate limiting factors in local ecosystems (e.g. food, water, light, space, nesting sites, disease, parasitism, predation) and their impact on Florida native populations.

SC.6.N.1.1, SC.7.N.1.1, SC.8.N.1.1: Plan and carry out investigations, use scientific reference materials, define problems, identify variables, collect and interpret data, analyze results, make predictions, and defend conclusions. These scientific inquiry benchmarks support how students evaluate habitat design.

SC.7.N.1.6: Explain that empirical evidence is the cumulative body of observations of natural phenomena on which scientific explanations are based—this underpins claim-making in habitat design projects.

Learning Objectives: Learn how to design a natural area in a way that attracts and provides a habitat for native Florida flora and fauna and why it is important to mindfully design landscaping to support native species.

Guiding Questions: What is necessary for plants to survive and thrive in a certain location? How do plants interact and impact each other, and how do the plants present impact the other organisms that may be found there? What other factors should be considered when designing a natural area such as a garden, yard or courtyard area to help native species?

Intended Outcomes

As a result of the program, what I want my audience to LEARN…	**As a result of the program, I want my audience to ACT by…**	**Assessment: (*How will you know* your audience has reached your intended outcomes)**
Factors that impact plant growth How plants can be adapted to certain environments How animals and other organisms depend on plants to survive How the presence of some species can impact others	Paying attention to the flora and fauna around them in their day to day life Consider the impacts of non-native plants and ornamental species Considering how thoughtfully designed natural areas can support populations of native plant and animal species Be able to explain to those in power the importance of thoughtfully designed landscaping	Students will create a poster board/blueprint of their own thoughtfully researched and designed natural area from scratch and be able to justify their choices of plants and explain how they will impact the wildlife of the area.

Schedule Layout:	**Items Needed:**
Introductory lesson based on material in FFL Principle 5, “attracting wildlife”. Discuss the importance of plants as a habitat and how the distribution of plants can impact what animals will be found in that habitat. Can also begin to discuss topics such as trophic levels and introduce the idea of biotic and abiotic factors. **~20min**	FFL Handbook. Available for free online through UF IFAS

Have students work together to identify (from a series of pictures) which common landscaping plants are native or non-native. This could be done as either a “card game” type activity where each group receives a deck of cards with each of the plants or as a gamified PowerPoint or online quiz game where teams can earn points or a prize for correct answers. **~20min**	List of native/non-native landscaping plants- specific to the certain area and in any of the listed formats depending on classroom needs.
Have students consider what types of plants that may attract local species. Depending on grade level, can also provide a list of native animal species that may rely on local plant growth. Remind students of “right plant right place” as it relates to their community. Depending on technology availability for the class, introduce the FFL plants mobile app and show students how many native plants are available to them and how the app will assist them with their project. **~20min**	Same format as above, with the option to allow them to name their own additional plants. FFL Plants Mobile App (if technology is available)
Show students some examples of a gardening/landscaping plan and challenge them to design a landscaping area of their own from scratch. Students will need to prepare full renderings of their plan (either sketched and colored with markers/colored pencils/crayons or a digital mock-up with images depending on technology options) and include at least four specific, native species with descriptions of the wildlife that they attract and what makes those species an appropriate choice for that location. **~1hour**	Poster board with coloring and art supplies OR laptops/iPads capable of preparing digital images
Have students present and display their plans, offering feedback to one another. **~20min**	

Details:

Activity Set-Up:

Prepare lecture material that is grade/class-level appropriate and focuses on the specific location for FFL “attracting wildlife” principle.

Choose and prepare cards/slideshow of landscaping plants common to the area, with a good mix of native and non-native plants represented.

Choose and prepare cards/slideshow of native wildlife that may rely on landscaping plants for survival.

Download FFL Plant Guide app to any necessary devices (if applicable)

Collect and prepare supplies for any poster making or presentations.