



Zoo Habitat Design Project – Guidelines for Parents, Guardians & Teachers

Are you looking for a STEAM-based project for your kids or students? Have them design a habitat for Seneca Park Zoo!

What Kids Will Do

- Do web-based research on an animal of their choice.
- Think critically about the needs of a habitat.
- Create a model that represents a solution to a real-world problem.
- Understand the relationship between animals and their habitats.

Tips for Assisting Kids

- They might need help reading the information on the worksheets and websites.
- They might need help getting their thoughts onto their worksheets.
- Provide them information, but let them be creative.
- If a section seems too difficult, skip it or modify it.
- The most important thing is that they explore, try new things, and learn from their mistakes.

Optional Extensions

- Have them create more than one habitat and compare.
- Research a conservation issue that their animal faces in its natural range.
- Create signs to educate Zoo guests about their animal.



Next Gen & NYS Science Learning Standards

- Grades K-2
 - **K-LS1-1:** Use observations to describe patterns of what plants and animals need to survive.
 - **K-ESS3-1:** Use a model to represent the relationship between the needs of different plants or animals and the places they live.
 - **2-PS1-2:** Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.
 - **2-LS2-2:** Develop a simple model that illustrates how plants and animals depend on each other for survival.
 - **K-2-ETS1-1:** Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.
 - **K-2-ETS1-2:** Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.
 - **K-2-ETS1-3:** Analyze tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.
- Grades 3-5
 - **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-ESS2-1:** Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.
 - **3-ESS2-2:** Obtain and combine information to describe climates in different regions of the world.
 - **3-ESS3-1:** Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard.
 - **4-LS1-1:** Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.
 - **3-5-ETS1-2:** Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
 - **3-5-ETS1-3:** Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.