Inquiry Project Design Plan

Teacher/Designer Names: Laura Llamas--- Robert C. Dodson School	
Name of Project: **Create a Zoo Exhibit/Habitat/Nature Center** **(Benchmark Unit # 3)**	**Grade Level: 2nd grade**
Est Launch Date: 11/1/2022	**Est Duration (in weeks):** **3-4 weeks**
Disciplines Involved: Science, ELA, Technology, Social Studies, Art, SEL	
Problem Statement: Humans do not always take into account that all living things have needs that need to be met in order to survive and thrive, especially animals that are taken out of their habitats and placed into zoo exhibits. They are not living the way nature intended and this affects their quality of life, life span, behaviors, and health.	

STAGE 1: DESIRED RESULTS

Big Idea: Animal survival

Enduring Understandings: **Students will know:**	**Essential Question(s):** (MEANT TO BE SHARED WITH STUDENTS)
● All living things have basic needs to survive. ● A habitat meets an animal's needs by providing food, water, shelter, and space. ● Awareness helps us to ensure the health and well-being of living things.	○ **How can we ensure all living things have what they need to survive?** ○ What is a habitat?

Established Goals (Standards, Performance Indicators, Learning Goals):
*choose relevant standards to unit/project plan timing and learning goals; do not need to use all disciplines below.
** unpack into SWK and SWBAT under identified standards as this will lead to aligned assessment design

Science Standards:

Next Generation Science Standards
NGSS 2-LS4-1 Make observations of plants and animals to compare the diversity of life in different habitats.
2-ESS2-2 Develop a model to represent the shapes and kinds of land and bodies of water in an area.
2-LS4-1 Make observations of plants and animals to compare the diversity of life in different habitats.

Students will know what the names of the different habitats of the world are.
Students will be able to distinguish key characteristics of each habitat.
Students will know the basic needs of all living things.
Students will be able to explain the basic needs of each living thing and the reason they need it.

Inquiry Project Design Plan

Social Studies Standards:

NYS native animals, environment, location, etc.

Mathematics Standards:

NA

ELA Standards:

CCSS for English Language Arts

W.2.2 Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.
W.2.4 With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose.
W.2.5 With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing.
W.2.7 Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).
W.2.8 Recall information from experiences or gather information from provided sources to answer a question.
W.2.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.
SL.2.1b Build on others' talk in conversations by linking their comments to the remarks of others.
SL.2.1c Ask for clarification and further explanation as needed about the topics and texts under discussion.
SL.2.2 Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.
SL.2.3 Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.
SL.2.6 Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

Students will be able to write a research report on the animal their group has chosen.
Students will be able to work as a group to discuss and plan their project.
Students will be able to work together with different assigned tasks in their group.
Students will know how to follow the checklist provided for their project.
Students will follow the non-fiction animal research report format provided.
Students will be able to display their exhibit/habitat as a diorama

Technology Standards:
Digital Literacy
2-3.DL.1 Locate and use the main keys on a keyboard to enter text independently.
2-3.DL.2 Communicate and work with others using digital tools to share knowledge and convey ideas.
2-3.DL.3 Conduct basic searches based on student identified keywords.

SWK: how to do a basic search with keywords they have identified

Inquiry Project Design Plan

SWBT: search with keywords and successfully find quality results
SWK: which apps and websites to use to find their information such as National Geographic.

Social Justice Standards:

NA

Other (Art, SEL, etc):

Creating dioramas using paper, clay, play dough, popsicle sticks, and other mixed media.

Links to Standards/Reference Frameworks:
NGSS, NGSS by DCI Nat'l C3 SS Framework, NYS K-8 SS Standards, Common Core, ISTE, Learning for Justice Social Justice Standards, CASEL SEL Framework, NYS CS and Digital Fluency

Students will know (SWK):	**Students will be able to do (SWBAT):**
• The definition of a habitat. • Vocabulary for talking about habitats including animals' needs, sets of animals, wild animals, shelter, and the names of five major habitats: Arctic (Polar), Desert, Ocean (Tide Pools or Coral Reefs), Rainforest, and Savanna (Tropical Grassland), • Text features add to comprehension of a text. • Information is presented in different formats. • Research helps us better understand a topic.	I will be able to: • Use technology to gather information about a native animal from my state. • Use written and visual information from various sources to create a model of the exhibit.

Inquiry Project Design Plan

STAGE 2: EVIDENCE & ASSESSMENTS:

Performance Task Narrative:

Goal: To create a zoo exhibit/habitat in which an animal can survive out of their natural habitat.

Role: Designers, Researchers, Writers, Artists, Speakers.

Audience: Classmates, teachers, administrators, parents.

Situation: Every living thing has basic needs to survive such as water, food, air, space, and shelter. As a group students will create a zoo exhibit/habitat for an animal native to NYS which will support it's needs to survive and thrive. A diorama and written piece will be created by each group to create our own class zoo display.

Product(s):

- Students will work in a group to create a zoo exhibit/habitat/nature center of a native NYS animal, the exhibit will supports its needs to survive and thrive.
- A written piece of at least 5 sentences describing the animal, it's needs, and at least 2 facts about the animal.

Standards (criteria for success): Students will successfully as group:

- ❑ Research a NYS native animal and share all findings with their group.
- ❑ Work cooperatively and be respectful to your group members.
- ❑ Plan and create an exhibit that mimics the animal of choice's natural habitat with all survival needs being met.
- ❑ Create a diorama to represent the habitat showing all needs of the animal with creativity and evidence of planning.
- ❑ Write at least 5 sentences describing the animal, it's needs, and at least 2 facts about the animal based on research.
- ❑ Use Benchmark texts, the internet, library books and articles to research.
- ❑ Every member of your group must be able to explain why an object is included in the habitat when you are presenting the final project.

Other Evidence/Assessments:

- **Quizzes and Tests on the different world habitats.**
- **Concept maps**

Inquiry Project Design Plan

- **Checklists**

STAGE 3: THE LEARNING PLAN:

Learning Activities

(potential layout below. Can be daily, divided by periods, or even using the Engineering Design Process to divide into stages such as Ask, Imagine, Plan, Create, Improve)

Week 1 Introduction to what animals need to survive

Learning Goals:

- **To understand the basic needs of all living things.**
- **To understand what exactly a zoo is and how it is organized. (Exhibits which are really mini habitats)**
- **Introduction to drones**
    - How do readers get information from informational text?
    - How does research help us learn?
    - How can we work together as a group cooperatively?
- Text features help readers understand information
- Research provides information needed for written or oral presentations

Learning Events:

- Brainstorm before anything individually and then share and discuss as a whole class. "What do animals need to survive?" (Record answers to this question on chart paper
-
- and have students copy into their notebooks.)
- Read independently, listen to as a whole class and take notes, and take turns reading out loud as a group and adding to notes, all week 1 Benchmark texts... "News About Scorpions", "All the Penguins", "The Coldest Place on Earth", "Postcards from Alex", and "The Deserts of Utah".
- Mystery Science unit #1 Animal adaptations...6-8 days long investigations
- Take virtual field trips to Zoos visiting exhibits and watching live cams of the animals in their exhibit/habitat: Bronx Zoo, San Diego Zoo, Cincinnati Zoo,

Inquiry Project Design Plan

Monterey Bay Aquarium, and Houston Zoo.

- Trip to Gorton Highschool to work with the high school students to be introduced to drones, robots, button making machine, and 3D printer.
- Trip to Greenburg Nature Center to see NYS native animals in habitat and learn about their needs for survival outside of their natural habitat.
- Create groups of 4-5 students.
- Discuss animals that live in the wild in NYS. Brainstorm as a group animals we see outside, squirrels, rabbits, deer, chipmunks, coyote, birds, gophers, etc.

Formative Assessments:
Group has chosen animal for exhibit/habitat.
Group is working together cooperatively.
Exit slip.NEEDS

Notes/Resources:

Week 2 Research and Plan

Learning Goals:

- **Groups will work together on laptops, using classroom/library Non-Fiction texts on specific animals, using Benchmark articles, and anything they research at home to get project in motion.**

Learning Events:

- **Groups work together to take notes, research, plan, and discuss their animal and it's needs to create the perfect exhibit/habitat.**
- **Draft a picture of diorama set up**
- **Bring in empty shoe boxes**
- **Benchmark texts that will be read and discussed, "A City Park Habitat", "A New Home for Margie", "Habitats Around the World", and "An Ocean Visit".**
- **Rubric explanation**

Inquiry Project Design Plan

Formative Assessments:
Rough draft of plan
Concept Map
Checklist

Notes/Resources:

Week 3 Design and Present

Learning Goals:
Students will finish working on projects.

Learning Events:

- **Benchmark texts "Burt the Sea Turtle", "The Monarch's Journey", "Lost in the Desert", and "Kurt's Big Trip".**
- **Checklist/Rubric**

Formative Assessments:
Checklist

Notes/Resources:

Week 4

Learning Goals:
Completion of Zoo Animal Exhibit/Habitats and presentations.

Learning Events:
Gallery Show of Zoo Animal Exhibit/Habitats and presentations.

Inquiry Project Design Plan

Formative Assessments: