

# PROJECT PLANNER

*Adapted from the Project Planning Form by the Buck Institute for Education*

Project title: Circle of Life

Teacher(s): Kimberly Eure

School: Clarksville Elementary

Grade level(s): 2

Subjects: Science and Language Arts

## Overview

*Summarize the theme for this project. Why do this project?*

In order to discover the life cycles and habitats of a variety of animals students will be researching and investigating an animal. Students will demonstrate their knowledge of their animal by creating a board game.

**Why:**

- To broaden students understanding of animal adaptations.
- To gain an understanding of different habitats.
- A exploration of nonfiction materials and ways to gather information.
- To continue to practice the importance of critique and creating beautiful work.
- To foster a love of learning on a topic of student interest.

## Essential Question

*Pose an authentic problem or significant question that engages students and requires core subject knowledge to solve or answer.*

- How do animals grow and change in their natural habitat?

## Products

What do you want students to do/write/create/build? What will you assess?

A game with cards that will demonstrate and teach the players how the chosen animal adapts to its natural surroundings.

## Learning Goals

*What do you want students to learn?*

### Science

2.5 The student will investigate and understand that living things are part of a system.

Key concepts include

- a) living organisms are interdependent with their living and nonliving surroundings;
- b) an animal's habitat includes adequate food, water, shelter or cover, and space;
- c) habitats change over time due to many influences; and
- d) fossils provide information about living systems that were on Earth years ago.

2.7 The student will investigate and understand that weather and seasonal changes affect plants, animals, and their surroundings. Key concepts include

- a) effects of weather and seasonal changes on the growth and behavior of living things; and

### Language Arts

#### Reading

2.6 The student will use semantic clues and syntax to expand vocabulary when reading.

- a) Use information in the story to read words.
- b) Use knowledge of sentence structure.
- c) Use knowledge of story structure and sequence.
- d) Reread and self-correct.

2.9 The student will read and demonstrate comprehension of nonfiction texts.

- a) Preview the selection using text features.
- b) Make and confirm predictions about the main idea.
- c) Use prior and background knowledge as context for new learning.
- d) Set purpose for reading.
- e) Ask and answer questions about what is read.
- f) Locate information to answer questions.
- g) Identify the main idea.
- h) Read and reread familiar passages with fluency, accuracy, and meaningful expression.

**2.10 The student will demonstrate comprehension of information in reference materials.**

- a) Use table of contents.
- b) Use pictures, captions, and charts.
- c) Use dictionaries, glossaries, and indices.
- d) Use online resources.

**2.14 The student will use available technology for reading and writing.**

#### **Math**

**2.11 The student will estimate and measure**

- a) length to the nearest centimeter and inch;

**2.18 The student will use data from experiments to predict outcomes when the experiment is repeated.**

**Identify key *skills* students will learn in this project. List only those skills you plan to assess.**

- Explain elements of the environment that may help or hurt the animal.
- Explain adaptations needed to survive in habitat.
- Explain how animal adaptations are affected according to changes in seasons.
- Use critique and teamwork to work with a partner to complete this project.

#### **Objectives:**

- Given a list vocabulary words, TSW work in groups of 2 or 3 to determine to definition of the word and work collaboratively to give 3 examples of usage for the term.
- Given background knowledge, TSW will work with their partners to write 10 questions on their habitat.
- After researching their chosen animal, TSW will work with partners to create 20

game cards and categorize them by help the animal, threaten the animal or misc.

## Timeline/Milestones

List the key dates and important milestones for this project.

- Day 1: Brainstorm in groups: List of games. Brainstorm as class using elbow partners to share thoughts: objectives, rules, and how to win. Play Lakeshore habitat game with whole group
- Day 2: Have them brainstorm on large paper in groups what each habitat encompasses including but not limited to animals, land, weather. Discuss different habitats (savanna, rainforest, ocean)\*share short video on each habitat and discuss
- Ocean Video: <http://www.youtube.com/watch?v=P5lBjsRkcVw>
- Rainforest video: [http://www.youtube.com/watch?v=7lHp9\\_SvTJE](http://www.youtube.com/watch?v=7lHp9_SvTJE)
- Savanna Video: <http://www.youtube.com/watch?v=DxAO-a0KrAQ>
- Day 3: Have them brainstorm on large paper in groups what each habitat encompasses including but not limited to animals, land, weather. Discuss different habitats (arctic, pond, forest)
- Pond video: <http://www.youtube.com/watch?v=EpXHXJjaQos>
- Arctic video: <http://www.youtube.com/watch?v=8edXnm4EGxs>
- Forest video: <http://www.youtube.com/watch?v=mGSqIT-9vFs>
- Day 4: Go back through habitats, correct mistakes. Choice of habitat (review each of the habitats, give each kid a list of the habitats and they will put a 1, 2, 3 next to what they prefer, do a read aloud on one or all of the habitats) Sheet is on the website
- Day 5: Tell them their habitat. Introduction of habitat, begin reading different books on habitats/animals.n Continue to add facts to each habitat as we read.
- Day 6: Research one animal whole group (1 week) Brainstorm: how to research on google.
- Day 7: Intro Chart: students share “what we think we know” add stickies to chart. Whole group read aloud of non fiction animal book, stop, review/move stickies. When you go research what do you want to find out? Add stickies to wondering section of the chart. (Brainstorm questions)
- Day 8: : Organize information into categories (What does the \_\_\_ eat?, what does the \_\_\_ look like? What does the \_\_\_ do? Where does the \_\_\_ live? How does the \_\_\_ grow and change? )

- **Day 8: Make cards, how does the fact help the animal survive?**
- **Day 9: Make cards. Write cards in a way that shows either a fact that helps or hurts the animal. For Example: Poachers want to cut the rhino horn off to sell to the Chinese for medicinal purposes. Move back 5 spaces. Or: You drink your mother's milk to grow big and strong. Move ahead 3 spaces.**
- **Day 10: Make True/False Fact cards. True/false cards can cover the information that students were unable to determine if it helps or hurts the animal. For example: True or False a giraffe can grow up to 20 feet tall? Students should pick animal to research in pairs.**
- **Day 11 - 12: Research animal independently.**
- **Day 13: Color code information in research notes: Green for helps animal, red for threatens animal, blue for interesting info. Give them a partner that they will work with in order to complete their game.**
- **Day 13: Work with a partner to create 5 helps the animal cards on a template.**
- **Day 14: Work with a partner to create 5 threatens the animal cards on a template.**
- **Day 15: Work with a partner to create 5 true/false questions about interesting facts about their animal. Then create 5 more questions in one of the formats.**
- **Day 16: Revise and edit cards using checklists.**
- **Day 17: Rewrite cards to make sure they are clean and neat.**
- **Day 18 - 19: Begin to type cards. Work in groups to start on game board, practice with clay to make pawns for game. If possible have each pawn be a different sized animal.**
- **Day 20: All students finish first draft of their game boards. These drafts should be completed on paper the same size as the actual game board.**
- **Day 21: Critique of first draft of game boards with 5th graders!**
- **Day 22 - 23: Work in groups: second draft of game board, type cards and finish, make "real" clay pieces for game.**
- **maybe Art?: Critique second draft of game boards. Discuss how to draw on the game board.**
  - Push lightly with pencil.
  - Work slowly and carefully
  - When coloring: start from the top and go left to right so that hand doesn't smear work, straight and even strokes (don't scribble), outline the area first if it's the same color but if a different color do it after it dries. (Will be using sharpies to color)
  - When doing background do the outline of the game first.
  - Can't color over the outline.
- **maybe Art?: Start on the final game board whole group with pencils**
- **maybe Art?: Finished groups will start with markers on game boards in small groups with teacher. Others who finish pencil will start first draft of drawing**

for their game box.

- maybe Art?: Finished groups will start with markers on game boards in small groups with teacher. Others who finish pencil will start cutting out cards and gluing them to the colored paper. Then work on first draft of drawing for their game box, critique with another pair and work on their box.
- Last Day: room set up and practice playing games with other classrooms. What should we do with games now? Who would benefit from the games, why?

## Strategies for Meeting the Needs of Diverse Learners

Students will work as a whole group, individual, small group, and in pairs. Students will be paired based on their choice of animal but also a pair the teacher believes will be most successful. Students will also be given many materials in order to complete their research. This may include but is not limited to, pictures, models, videos, websites, and games.

## Presentation

How will students present/exhibit their work? How might you incorporate an authentic audience?

Students will play their games with a variety of audiences. These will include visitors at exhibition, students of other classrooms, and ideally students of another school also learning about life cycles.

## Assessment

*Describe the criteria for exemplary performance for each product:*

**Product:** Game board cards

**Criteria:** Show a clear understanding of how the animal grows and changes as well

as elements that help or harm that animal in their natural habitat.

**Product: Game Board**

**Criteria: Neat and realistic drawings of the different stages of life of the animal. A clear use of the critique sessions in order to improve work.**

## **Books**

### **Sets of 6**

- **Animal Life Cycles by Anita Ganeria**
- **Hibernation by Anita Ganeria**
- **Migration by Anita Ganeria**
- **Forest by Sean Callery**
- **The Great Kapok Tree by Lynne Cherry**
- **Plants and Animals published by Delta Education**
- **Owls, Bats, Wolves, and Other Nocturnal Animals by Kris Hirschmann**
- **What Lays Eggs? by Sharon Street**
- **Tree Homes by Carol Ghiglieri**
- **Polar Bear Night by Lauren Thompson**
- **Animals in their Habitats by Debra Castor**
- **Can Kittens Take a Catnap? by Claire Palfreman-Bunker**
- **Penguin Chick by Betty Tatham**
- **A Baby Lobster Grows Up by Katie Marsico**
- **Dancing with Manatees by Faith McNulty**
- **Flamingos by Jean Malone**
- **Penguins by Kathleen W. Zoehfeld**
- **Animal Disguises by Emma Ryan**
- **Hibernation by Toria Kosara**
- **Magic School Bus Sleeps for the Winter by Eva Moore**
- **Meerkats by Laura Marsh**
- **Polar Bears by Laura Marsh**
- **Bats by Elizabeth Carney**
- **Polar Lands by Sean Callery**
- **Woodlands by Justin Martin**
- **Deserts by Justin Martin**
- **Grasslands by Violet Findley**
- **Polar Regions by Sally St. Martin**

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| <ul style="list-style-type: none"><li>● <b>Ponds by Casey Losko</b></li></ul> |
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Core Clicks Lessons to Correlate with Unit:

Grade K: Big Changes for Baby Birds

Grade 1: Bears, Bears, Everywhere