

CLASS / COURSE: DIGGING DEEP: Excavating the Habitat of the Gopher Tortoise through Group Research
Grade 5 - Gifted Resource (Part-time pull-out program)

TEACHER: Mrs. Sue Valentine
Tanglewood Elementary School
Lee County School District

BIG IDEA / UNIT: Big Idea 15: Diversity and Evolution of Living Organisms.
SC.5.L.15.1
Earth is home to a great diversity of living things, but changes in the environment can affect their survival

OBJECTIVES/BENCHMARKS: Benchmark number SC.5.L.15.1

Students will be able to describe the gopher tortoise habitat and how a gopher tortoise is able to survive and adapt to environmental changes. In addition, they will describe how the differences between individual tortoises will allow some tortoises to survive and reproduce while others die or move to new locations.

Students will work as part of a cooperative group using multi-media sources to complete research on the gopher tortoise and will present their findings to their peers using various team-selected presentation/teaching tools.

STANDARDS:

Other Sunshine State Standards Addressed: MA.5.2.7.2; LA.6.2.2.3; SS.B.2.3; SC.D.1.3.3; SC.G.2.3.3

Technology Standards: National Technology Foundation Standards for Students: 4 Technology Research Tools; 5- Technology Problem-solving and Decision-making Tools.

Marzano Strategies: Identifying Similarities and Differences, Cooperative Learning, Nonlinguistic Representations, Setting Objectives and Providing Feedback, and Cues, Questions, and Advanced Organizers.

Additional Standards: It is expected that all students will display active participation and contribution of ideas during the KWL phase, the group research phase, and the group presentation phase. In addition to Teacher Observation in assessing those areas, each student will be assessed through the scoring Rubric (in particular the section addressing Workload), and final student reflections which will provide further feedback on the contributions and participation efforts of each individual student. The scoring rubric will be reviewed prior to the beginning of the exploration/investigation to clarify what is required for teams to earn an A, B, C, or U.

ASSESSMENT:

Students will be assessed during the planning and preparation stages through teacher observation of group participation. Assessment using the attached RUBRIC will occur during the group presentations of final products. Rubric scores of 16-20 = A, 11-15 = B, 6-10 = C, 5 or below = Unacceptable (U). Student groups will evaluate the contribution of each group member and their overall group success through written reflection.

FRAMEWORKS:

GOAL 4: -The Gifted Student will identify and investigate a problem and generate supportive arguments from multiple perspectives of a complex issue.

-The Gifted Student will analyze the relevance, reliability, and usefulness of data to draw conclusions and forecast effective solutions.

-The Gifted Student will use and evaluate various problem-solving methods to determine effectiveness in solving real-world problems.

- GOAL 5:
- The Gifted Student will accept divergent views to positively affect change.
 - The Gifted Student will identify leadership traits and qualities as they appear in different individuals and situations.
 - The Gifted Student will manifest significant leadership skills and organize group(s) to achieve product goals.

INTRODUCTION: The teacher will introduce the students to the Gopher Tortoise by reading the *Gopher Tortoise History* section of the story written by Zander Strodes available at the following website:

http://myfwc.com/docs/WildlifeHabitats/GT_GopherTortoise_Strodes.pdf

The teacher will then lead the class in creating four KWL charts that focus on: The History of the Gopher Tortoise, The Habitat of the Gopher Tortoise, Problems and Solutions with the Continued Survival of the Gopher Tortoise, and Research Needs for the Future of the Gopher Tortoise. The teacher will lead the discussion and as a whole group, the students will complete the K (what they know) and the W (what they want to know) for each of the four charts. The teacher will then divide the students up into four groups and give each group one of the attached **Research Guides** and the KWL chart that pertains to that guide. The teacher will review each Research Guide with the entire class reading each research question to ensure vocabulary and each question is understood. The teacher will give each student a copy of the Scoring Rubric and review the scoring sections with the class (including the points needed for an A, B, C, and U).

EXPLORATION / INVESTIGATION: The students will work with their group members using Research Guides, computer/internet access and various other media resources to find the answers to the team-assigned research questions. In addition, the students will also address the “W’s” from the KWL chart that pertains to their Research Guide. The teacher will circulate the room and assist as needed with team generated work / questions. Student groups will create a presentation for each individual question on their Research Guide that will clearly and creatively answer the question. They may select from models, performing a play, creating a photo story, creating a song or music, creating drawings, charts, designing a book or storytelling (other forms of presentation can be used with teacher approval).

CHECK FOR UNDERSTANDING / JUSTIFICATION: Student groups will present their final products to the class via their selected mode of presentations. The Rubric (Attached) will serve as the assessment guide for each presentation. Question and Answer session will follow each presentation for clarification and understanding.

CLOSURE / SUMMARY: After all presentations by the student groups have been completed, the teacher will lead the students in discussion and as a whole group, students will complete the “L” sections (what have we learned?) of each KWL chart. Students and teacher will use this opportunity to clarify understanding of all areas of the research project. Students will complete journal entries and group evaluations (see Reflections below).

MORE PRACTICE / PROBLEM SOLVING / APPLICATIONS: Student groups will use what they have learned from all group presentations on a field trip where they will identify and take pictures of plants, burrows, gopher tortoises, possible hazards of the gopher tortoise, etc. and use these photos

to create a Photo Story. Completed Photo Stories can be shared with various environmental sources (nature centers, etc) to assist in their efforts to educate the public.

REFLECTIONS: Student groups will evaluate the contribution of each group member and their overall group success through written reflection. They will use journal entries to reflect on what they have learned from other group presentations.

MATERIALS:

- The Gopher Tortoise by Zander Srodes to be presented via computer (website attached)
- 4 KWL Charts Headed as Follows:
 - Background of the Gopher Tortoise
 - Habitat and Needs of the Gopher Tortoise
 - Problems and Solutions with the Gopher Tortoise
 - Research Needs for the Future of the Gopher Tortoise
- 4 Different RESEARCH GUIDES (attached) -One copy for each group member
- Computer / Internet Access
- Access to Media Center for Research Purposes
- Assessment Rubric (attached) - One for each student
- Student Journals – One for each student
- Pencils, Dry Erase Markers, Markers (at least one per student)
- Various misc. materials and art supplies as determined by team presentation needs

DURATION / TIME FRAME:

- | | |
|--|---|
| Introduction: PHOTO STORY | Approximately 5 minutes |
| KWL Chart Creation | 15 minutes per chart (One Hour total) |
| Exploration / Investigation / Research | Based on group size, class periods, etc.
Approximately 3 – 6 hours |
| Check for Understanding (Whole Group) | Presentation times will vary X number of teams
Q and A to follow each presentation |
| Closure / Summary | Approximately 1 hour |
| Reflection | 15 minutes |

ATTACHMENTS:

Research Guides 1-4

Scoring Rubric

Gopher Tortoise Research Guide

Group #1

BACKGROUND OF THE GOPHER TORTOISE

Your group research should address the questions below. Decide with your team how you would like to divide up the work and present your findings to the class. You may use any of the suggestions at the bottom of this page or discuss other presentation ideas with your teacher.

- 1. Compare and contrast gopher tortoises and sea turtles. How are they alike? How are they different?**
- 2. Describe or visually depict the body of a gopher tortoise. Use labels. (What is the shell called, etc.?)**
- 3. What is the scientific name for Gopher Tortoise? How can we learn and remember this word? (be creative.... 😊)**
- 4. Where in the world would we find the Gopher Tortoise? (hint: A visual aid would be wonderful!)**
- 5. What is an Ecosystem? What is our Ecosystem? Create and present an original team-designed Ecosystem that helps us remember what an Ecosystem is?**

Models Perform a Play Photo Story Songs/Music Other
Drawings Charts Create a Book Storytelling

Gopher Tortoise Research Guide

Group #2

HABITAT AND NEEDS OF THE GOPHER TORTOISE

Your group research should address the questions below. Decide with your team how you would like to divide up the work and present your findings to the class. You may use any of the suggestions at the bottom of this page or discuss other presentation ideas with your teacher.

- 1. Describe or show what a gopher tortoise habitat is like. (what is the habitat called? What plants will you see there?)**
- 2. Show or Tell us about invasive plants – what are they? What type of soil holds the least moisture? How are gopher tortoises affected by soil conditions and invasive plant species?**
- 3. What does it mean to be an “obligate” and just what is a commensal? Do other animals go near the Gopher Tortoise burrow? If so, WHICH, animals and why?**
- 4. Find out about the following and teach us a creative way to remember their differences: oak hammock, pine upland, cypress slough, wet prairie.**

Models Perform a Play Photo Story Songs/Music Other
Drawings Charts Create a Book Storytelling

Gopher Tortoise Research Guide

Group #3

PROBLEMS AND SOLUTIONS WITH THE GOPHER TORTOISE

Your group research should address the questions below. Decide with your team how you would like to divide up the work and present your findings to the class. You may use any of the suggestions at the bottom of this page or discuss other presentation ideas with your teacher.

- 1. Teach us about the different kinds of forest fires (a visual aid would be nice) and why they could be a good thing for a Gopher Tortoise. Why would it be a bad thing (besides the obvious...). In what ways are pine flatwoods beneficial to people?**
- 2. Why isn't it a good idea for everyone to have a Gopher Tortoise as a pet and what is wrong with racing them? (This is a great opportunity to use your creative presentation skills).**
- 3. Show or tell us what happens if we move a Gopher Tortoise to a new place. Does he settle in comfortably? Is he able to find food? Mates?**

4. Give us a creative representation of what we should do if we see a Gopher Tortoise at the side of the road one day.

Models Perform a Play Photo Story Songs/Music Other
Drawings Charts Create a Book Storytelling

Gopher Tortoise Research Guide

Group #4

RESEARCH NEEDS FOR THE FUTURE OF THE GOPHER TORTOISE

Your group research should address the questions below. Decide with your team how you would like to divide up the work and present your findings to the class. You may use any of the suggestions at the bottom of this page or discuss other presentation ideas with your teacher.

- 1. When you have your backpack full of books, you may reach your “carrying capacity.” What does “carrying capacity” mean to the habitat of a Gopher Tortoise?**
- 2. How can we learn and remember the difference between Endangered, Threatened and Species of Special Concern? Which one is the Gopher Tortoise and who makes that determination? What do they base their decision on?**
- 3. What could happen to other specific animals if the Gopher Tortoise disappears?**

4. Demonstrate some creative ways we might improve the chances of the gopher tortoise population being sustained so that they will not be lost to our southwest Florida community?

Models Perform a Play Photo Story Songs/Music Other
 Drawings Charts Create a Book Storytelling

Multimedia Project : Digging Deeper with Research

Teacher Name: **Mrs. Valentine**

Student Name: _____

CATEGORY	4	3	2	1
Content	Covers topic in-depth with details and examples. Subject knowledge is excellent.	Includes essential knowledge about the topic. Subject knowledge appears to be good.	Includes essential information about the topic but there are 1-2 factual errors.	Content is minimal OR there are several factual errors.
Requirements	All requirements are met and exceeded.	One requirement was not completely met.	Several requirements were not completely met.	Fewer than two requirements were completely met.
Presentation	Well-rehearsed with smooth delivery that holds audience attention.	Rehearsed with fairly smooth delivery that holds audience attention most of the time.	Delivery not smooth, but able to maintain interest of the audience most of the time.	Delivery not smooth and audience attention often lost.
Originality	Product shows a large amount of original thought. Ideas are creative and inventive.	Product shows some original thought. Work shows new ideas and insights.	Uses other people's ideas (giving them credit), but there is little evidence of original thinking.	Uses other people's ideas, but does not give them credit.

Workload	The workload is divided and shared equally by all team members.	The workload is divided and shared fairly by all team members, though workloads may vary from person to person.	The workload was divided, but one person in the group is viewed as not doing his/her fair share of the work.	The workload was not divided OR several people in the group are viewed as not doing their fair share of the work.
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Date Created: **Sep 22, 2008 11:49 am (CDT)**