Exploring Animal Characteristics and Habitats

WebQuest Description: A WebQuest for third grade science
Grade Level: 3-5
Curriculum: Science
Keywords: habitat, characteristic, compare, contrast, observe, identify, diorama, research
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Introduction

Observing creatures and identifying why they do the things they do is an amazing learning experience. In this WebQuest you will explore fascinating animals. You will discover their unique characteristics and habitats by reading interesting facts, enjoying pictures, taking virtual field trips, and creating activities!

Tasks

You will begin this WebQuest by learning and discovering the characteristics and habitats of animals by going on a Web site titled, fieldtripearth.com. You will get to see these animals in action by watching video and pictures. You will act as a scientific animal researcher and study the animals. Your job will be to observe the animals and learn about their unique characteristics and habitats. Through reading you will learn what they eat, how they defend themselves against predators, where they live, and other interesting facts.

As a scientific animal researcher you are going to:

Select two animals of your choice.

Use fieldtripearth.com for your research.

Complete a Venn Diagram on PowerPoint to compare and contrast the two animals.

You will then create an Animal Report using Microsoft Word to describe one animal and tell about what they eat, how they live, where they live, and how they protect themselves.

Lastly, you will create a diorama of the animal's habitat using the research you have gathered. Everyone will have an opportunity to share their research by presenting their report and diorama to their peers!

Process

You have an important job as an animal researcher. In order to fulfill your mission you must make sure you understand the vocabulary and try your personal best to complete the assignments.

Your first assignment will be to use an online dictionary Website, Merriam Webster Dictionary http://www.merriam-webster.com in order to look up the meanings of the following words:

habitat observe identify compare contrast research characteristics diorama

The link to the dictionary website is found below. You will type in the word, press search, and the definition will appear. You will use your vocabulary journal to write the meaning of the words, use the word in a sentence, and illustrate the meaning of the word. Now that you have a better understanding of the vocabulary for the job of a researcher you are ready for the next step.

You will begin to observe the animals and read about the fascinating facts that make these animals so interesting by going to the Field Trip Earth animal website, http://fieldtripearth.com/, the link is below. Please record your findings in your science
You have researched and learned so much about animals, their habitats, characteristics, diet, predators, prey, and lifestyle. You have compared an animal with another and have written a report on your animal. Now it is time for you to create a diorama, a small model of where the animal lives. You should use the information from your science journal and feel free to return to Field Trip Earth to gather more research just in case you missed something. The diorama should be in a shoe box. I recommend you use the live materials around you like twigs, leaves, grass, sand, soil. You may paint, draw, or use construction paper to create other details that are not available. Be sure a model or illustration of your animal is in the habitat you create. Enjoy!!!

Congratulations all the tasks are done! You are now ready to present to your fellow researchers just like other science professionals. You will present your Animal Report and proudly display your diorama. We can hardly wait to learn about the fascinating creatures and where they live.

Evaluation

This section describes how you will be evaluated for the activities which you are going to complete. Please notice in order to receive a passing grade you will need to receive "Very Good" or "Exemplary". I know that you possess the talent to be an exceptional researcher so do your personal best!

<table>
<thead>
<tr>
<th>Category and Score</th>
<th>Beginning</th>
<th>Developing</th>
<th>Very Good</th>
<th>Exemplary</th>
<th>Score</th>
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</thead>
<tbody>
<tr>
<td>Vocabulary</td>
<td>Student made an attempt to define the terms, but did not write effective sentences or draw illustrations to demonstrate understanding of meaning.</td>
<td>Student defined the terms and wrote some sentences and illustrations with errors.</td>
<td>Student wrote definitions, sentences, and created illustrations with a few errors.</td>
<td>Student wrote definitions, sentences, and created illustrations with a high level of accuracy.</td>
<td>24</td>
</tr>
<tr>
<td>Venn Diagram</td>
<td>Diagram is incomplete, significant errors in differences and similarities.</td>
<td>Diagram demonstrates repetitions or opposite comments on differences and numerous errors</td>
<td>Diagram is completed with few errors demonstrating knowledge of differences and similarities.</td>
<td>Diagram is completed with a high level of accuracy.</td>
<td>15</td>
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<tr>
<td>Animal Report</td>
<td>Responses are incomplete, incorrect, and grammatically not well developed.</td>
<td>Sentences lack full development and understanding of animal habitat and characteristics.</td>
<td>Responses demonstrate few errors and provide important information on animal facts.</td>
<td>All answers are written in complete grammatically correct sentences with valuable facts regarding the animal.</td>
<td>10</td>
</tr>
<tr>
<td>Diorama &amp; Presentation</td>
<td>Diorama is not fully developed and animal is not present. Presentation demonstrates a lack of understanding of animal habitat and characteristics.</td>
<td>Diorama has some errors and the student lacks the full understanding of the animal habitat and characteristics.</td>
<td>Diorama is a relatively accurate depiction of habitat and the child is aware of animal content.</td>
<td>Diorama is an accurate depiction of the habitat and the student is knowledgeable of the animal characteristics and habitat.</td>
<td>25</td>
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<td>Total Score</td>
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</table>

Conclusion

Exploring animals' characteristics and habitats is amazing! I hope you enjoyed your role as a researcher. Now that you have explored the animal world and understand their way of life, you will learn about the life cycle. Some of the same animals you learned about have a specific place in the life cycle as predators and prey. You'll be making more visits to fieldtripearth.com and learning more interesting animal facts!
Texas Science TEKS:

(1) Scientific processes. The student conducts field and laboratory investigations following home and school safety procedures and environmentally appropriate and ethical practices. The student is expected to: (B) make wise choices in the use and conservation of resources and the disposal or recycling of materials.

(2) Scientific processes. The student uses scientific inquiry methods during field and laboratory investigations. The student is expected to: (A) plan and implement descriptive investigations including asking well-defined questions, formulating testable hypotheses, and selecting and using equipment and technology; (B) collect information by observing and measuring; (C) analyze and interpret information to construct reasonable explanations from direct and indirect evidence; (D) communicate valid conclusions; and (E) construct simple graphs, tables, maps, and charts to organize, examine and evaluate information.

(3) Scientific processes. The student knows that information, critical thinking, and scientific problem solving are used in making decisions. The student is expected to: (C) represent the natural world using models and identify their limitations; (G) observe and identify organisms with similar needs that compete with one another for resources such as oxygen, water, food, or space; (D) describe environmental changes in which some organisms would thrive, become ill, or perish; and (D) describe how living organisms modify their physical environment to meet their needs such as beavers building a dam or humans building a home.

(9) Science concepts. The student knows that species have different adaptations that help them survive and reproduce in their environment. The student is expected to: (A) observe and identify characteristics among species that allow each to survive and reproduce; and (B) analyze how adaptive characteristics help individuals within a species to survive and reproduce.

Texas §110.14. English Language Arts and Reading TEKS

(1) Reading/Beginning Reading Skills/Phonics. Students use the relationships between letters and sounds, spelling patterns, and morphological analysis to decode written English. Students are expected to: (A) decode multisyllabic words in context and independent of context by applying simple and compound sentences, and audience; (D) edit drafts for coherence, organization, use of simple and compound sentences, and audience; (E) analyze how adaptive characteristics help individuals within a species to survive and reproduce.

(2) Reading/Beginning Reading/Strategies. Students comprehend a variety of texts drawing on useful strategies as needed. Students are expected to: (A) use ideas (e.g., illustrations, titles, topic sentences, key words, and foreshadowing clues) to make and confirm predictions; (B) ask relevant questions, seek clarification, and locate facts and details about stories and other texts and support answers with evidence from text; and (C) establish purpose for reading selected texts and monitor comprehension, making corrections and adjustments when that understanding breaks down (e.g., identifying clues, using background knowledge, generating questions, re-reading a portion aloud). (3) Reading/Fluency. Students read grade-level text with fluency and comprehension. Students are expected to read aloud grade-level appropriate text with fluency (rate, accuracy, expression, appropriate phrasing) and comprehension. (4) Reading/Vocabulary Development. Students understand new vocabulary and use it when reading and writing. Students are expected to: (A) use text features (e.g., bold print, captions, key words, italics) to locate information and make and verify predictions about contents of text.

(5) Reading/Comprehension of Informational Text/Expository Text. Students analyze, make inferences and draw conclusions about expository text and provide evidence from text to support their understanding. Students are expected to: (A) identify the details or facts that support the main idea; (B) draw conclusions from the facts presented in text and support those assertions with textual evidence; (C) identify explicit cause and effect relationships among ideas in texts; and (D) use text features (e.g., bold print, captions, key words, italics) to locate information and make and verify predictions about contents of text.

(6) Reading/Comprehension of Informational Text/Procedural Texts. Students understand how to glean and use information in procedural texts and documents. Students are expected to: (A) follow and explain a set of written multi-step directions; and (B) locate and use specific information in graphic representations of text. (7) Reading/Comprehension of Literary Text/Literary Nonfiction. Students understand, make inferences and draw conclusions about the varied structural patterns and features of literary nonfiction and respond by providing evidence from text to support their understanding.

(11) Reading/Comprehension of Text/Independent Reading. Students read independently for sustained periods of time and produce evidence of their reading. Students are expected to read independently for a sustained period of time and paraphrase what the reading was about, maintaining meaning and logical order (e.g., generate a reading log or journal; participate in book talks). (13) Reading/Comprehension of Informational Text/Expository Text. Students analyze, make inferences and draw conclusions about expository text and provide evidence from text to support their understanding. Students are expected to: (A) identify the details or facts that support the main idea; (B) draw conclusions from the facts presented in text and support those assertions with textual evidence; (C) identify explicit cause and effect relationships among ideas in texts; and (D) use text features (e.g., bold print, captions, key words, italics) to locate information and make and verify predictions about contents of text.

(15) Reading/Comprehension of Informational Text/Procedural Texts. Students understand how to glean and use information in procedural texts and documents. Students are expected to: (A) follow and explain a set of written multi-step directions; and (B) locate and use specific information in graphic representations of text. (16) Reading/Comprehension of Informational Text/Expository Text. Students analyze, make inferences and draw conclusions about the varied structural patterns and features of literary nonfiction and respond by providing evidence from text to support their understanding.

(17) Writing/Writing Process. Students use elements of the writing process (planning, drafting, revising, editing, and publishing) to compose text. Students are expected to: (A) plan a first draft by selecting a genre appropriate for conveying the intended meaning to an audience and generating ideas through a range of strategies (e.g., brainstorming, graphic organizers, logs, journals); (B) develop drafts by categorizing ideas and organizing them into paragraphs; (C) revise drafts for coherence, organization, use of simple and compound sentences, and audience; (D) edit drafts for grammar, mechanics, and spelling using a teacher-developed rubric; and (E) publish written work for a specific audience.

(20) Writing/Expository and Procedural Texts. Students write expository and procedural or work-related texts to communicate ideas and information to specific audiences for specific purposes. Students are expected to: (A) create brief compositions that: (i) establish a central idea in a topic sentence; (ii) include supporting sentences with simple facts, details, and explanations; and (iii) contain a concluding statement; (C) write responses to literary or expository texts that demonstrate an understanding of the text. (22) Oral and Written Conventions/Conventions. Students understand the function of and use the conventions of academic language when speaking and writing. Students continue to apply earlier standards with greater complexity. Students are expected to: (A) use and understand the function of the following parts of speech in the context of reading, writing, and speaking: (i) verbs (past, present, and future); (ii) nouns (singular/plural, common/proper); (iii) adjectives (e.g., descriptive: wooden, rectangular; limiting: this, that; articles: a, an, the); (iv) adverbs (e.g., time: before, next; manner: carefully, beautifully); (v) prepositions and prepositional phrases; (vi) possessive pronouns (e.g., his, hers, theirs); (vii) coordinating conjunctions (e.g., and, or, but); and (viii) time-order transition words and transitions that indicate a conclusion; (B) use the complete subject and the complete predicate in a sentence; and (C) use complete simple and compound sentences with correct subject/verb agreement. (23) Oral and Written Conventions/Handwriting, Capitalization, and Punctuation. Students write legibly and use appropriate capitalization and punctuation conventions in their compositions. Students are expected to: (B) use capitalization for: (i) geographical names and places; (ii) official titles of people; (C) recognize and use punctuation marks including: (i) apostrophes in contractions and possessives; and (ii) commas in series and dates; and (D) use correct mechanics including paragraph indentation. (24) Oral and Written Conventions/Spelling. Students spell correctly. Students are expected to: (A)
use knowledge of letter sounds, word parts, word segmentation, and syllabication to spell; (B) spell words with more advanced orthographic patterns and rules: (C) spell high-frequency and compound words from a commonly used list; (D) spell words with common syllable constructions (e.g., closed, open, final stable syllable); (E) spell single syllable homophones (e.g., bear/bare; week/weak; road/rode); (F) spell complex contractions (e.g., should’ve, won’t); and (G) use print and electronic resources to find and check correct spellings. (25) Research/Research Plan. Students ask open-ended research questions and develop a plan for answering them. Students are expected to: (B) generate a research plan for gathering relevant information (e.g., surveys, interviews, encyclopedias) about the major research question. (26) Research/Gathering Sources. Students determine, locate, and explore the full range of relevant sources addressing a research question and systematically record the information they gather. Students are expected to: (A) follow the research plan to collect information from multiple sources of information, both oral and written, including: (i) student-initiated surveys, on-site inspections, and interviews; (ii) data from experts, reference texts, and online searches; and (iii) visual sources of information (e.g., maps, timelines, graphs) where appropriate; (B) use skimming and scanning techniques to identify data by looking at text features (e.g., bold print, captions, key words, italics);

Texas Technology TEKS126.3. Technology Applications, Grades 3-5 &nbsp;§(6) Information acquisition. The student evaluates the acquired electronic information. The student is expected to: (A) apply critical analysis to resolve information conflicts and validate information; (C) determine the usefulness and appropriateness of digital information. C) take simple notes and sort evidence into provided categories or an organizer; &nbsp;§(27) Research/Synthesizing Information. Students clarify research questions and evaluate and synthesize collected information. Students are expected to improve the focus of research as a result of consulting expert sources (e.g., reference librarians and local experts on the topic).

National Literacy Standards Standard 1: The student who is information literate accesses information efficiently and effectively.Standard 2: The student who is information literate evaluates information critically and competently. Standard 3: The student who is information literate uses information accurately and creatively. Standard 4: The student who is an independent learner is information literate and pursues information related to personal interests. Standard 5: The student who is an independent learner is information literate and appreciates literature and other creative expressions of information. Standard 6: The student who is an independent learner is information literate and strives for excellence in information seeking and knowledge generation. Standard 8: The student who contributes positively to the learning community and to society is information literate and practices ethical behavior in regard to information and information technology.

Texas Library Standards Standard 1: Learner-Centered Teaching and Learning: Goal: To promote the integration of curriculum, resources, and teaching strategies to ensure the success of all students as the effective creators and users of ideas and information, enabling them to become lifelong learners. Standard III. Learner-Centered Technology and Information Access: Goal: To promote the success of all students and staff by facilitating the access, use, and integration of technology, telecommunications, and information systems to enrich the curriculum and enhance learning. Standard IV. Learner-Centered Library Environment: Goal: To provide design guidelines for facilities to allow for manipulation, production, and communication of information by all members of the learning community. Standard V. Learner-Centered Connections to the Community: Goal: To provide information equity by working for universal literacy; defending intellectual freedom; preserving and making accessible the human record; ensuring access to print and electronic resources; connecting school faculty, staff, and students to community resources and services as needed; and by connecting community members to school resources and services as appropriate.

Standards

Credits

Other