

## Designing Effective Projects: Characteristics of Projects Inside Projects: Year 2 to Year 4

### African Adventure Safari: A Year 2 to Year 4, Life Science Project

Student naturalists help safari guests learn about diversity, interdependence, and wonder of life in the African wild. You may want to print this page as you view the entire [African Adventure Safari Unit Plan](#).

#### Student-Centered

This project is made relevant to students' lives by asking the Essential Question: *What is the price of life?* Students write a newsletter, investigate the natural history of an animal, take the perspective of that animal, and create a slideshow of their findings.

#### Alignment with Curriculum Specifications

Project work is central to the curriculum. Organisms and their environment is often part of the Year 2 to Year 4 Life Science curriculum and addresses curriculum specifications. It involves key science processes of identifying and understanding relationships between African animals and their environment.

#### Important Questions

The Essential Question, *What is the price of life?* is an intriguing question and elevates the thinking beyond the classroom. The Unit Questions help make the unit relevant to students' lives and connect new content to what they already know. Content Questions such as, *What do African animals need to survive?* prompt students to think about relevant facts and information that lead to the higher level questions. The Essential Question is posed periodically throughout the unit, and students are given many opportunities to discuss and reflect on it, individually, in pairs, and with the larger group. This not only gives the students opportunities to think about the content at higher-levels but gives teachers information on the students' understanding of the content and ways in which they can direct and redirect their teaching.

#### Multiple and Ongoing Assessments

Assessment is embedded throughout the unit with informal assessments as the class creates lists, begins a K-W-L chart, and has discussions around the unit topic and the Curriculum-Framing Questions. These activities give the teacher a sense of how much the students already know about the topic and how much learning needs to take place to reach unit objectives. Students also create individual K-W-L charts and research packets, allowing the teacher an opportunity to assess individual learning. The teacher assesses the final product with the project rubric. Students manage their work on the field guide with the same rubric and a checklist. At the end of the unit students write a follow-up paragraph or reflection essay about the Essential Question.

#### Authentic Work

The students make real-world connections through the Essential Question, which asks them to make connections to their life and to that of an animal's. Students "become" their animal and create their presentations from the animal's point of view. The letter home builds a home-to-school connection, while students make ties to the community and beyond the classroom by creating a field guide, multimedia presentation, and Web site focused on the Content Question: *How are living things connected in their habitat and in what ways do they need each other to survive?*

### **Demonstrations of Learning**

Students complete several products: a multimedia presentation that will be a virtual safari, a field guide distributed at the safari tour, and a Web site. The products are intrinsically engaging and authentic to the task.

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### **Technology-Enhanced Learning**

Students use technology to gather information and create a safari field guide and a multimedia presentation allowing them to share their learning with a wider audience. Additionally, they are encouraged to extend their learning by creating a Web site to share what they have learned with a broader audience.

### **Higher-Order Thinking Skills**

After collecting information about African animals, students synthesize information to “become” that animal and take on their perspective. Students take knowledge of what they have learned from their research and apply it to the creation of a field guide and multimedia presentation. Classroom discussions lead to higher levels of thinking prompted with Curriculum-Framing Questions. A K-W-L chart encourages investigative thinking throughout the unit.

### **Varied Instructional Strategies**

- **Prior Knowledge:** Prior knowledge is assessed at the beginning of the unit with a brainstorming game to get students thinking about African animals. Next, a Know-Want to Know-Learned chart elicits questions based on students' curiosity. Finally, students create a chart of prices for familiar items, such as food and clothes. This initial knowledge is transferred to their investigation of the Essential Question: *What is the price of life?*
- **Graphic Organizers:** Visual organizers are incorporated throughout the unit. The unit begins with group and class created lists to accompany the brainstorming process. K-W-L charts, class made and individually made, are referred to throughout the unit and then revisited when the unit is over to celebrate the knowledge gleaned about African animals. A storyboard planning sheet helps students with the design of their multimedia presentation.
- **Cooperative Grouping:** Students work in collaborative teams to brainstorm African animals and discuss the Essential Question. Cooperative teams work together to offer peer feedback on their field guide work. Student teams also collaborate to complete the Web site. Partnering is encouraged for resource, gifted, and ELL students.
- **Peer and Teacher Feedback:** Teachers meet with students for mini-conferences to give specific, individual feedback as they are researching their African animals. Rubrics communicate progress when final products are assessed. Students exchange feedback when they share drafts of their field guide writing.
- **Recognition:** Students get recognition through the publication of their field guide. Student slideshows are shared with other classes, parents, and invited guests through a virtual safari showcase. The student's follow-up paragraphs and reflections are viewed by parents and other classmates as portfolio pieces. Students also receive recognition through their Web site.
- **Questioning:** Discussion of Essential, Unit, and Content Questions provides questioning throughout the unit. As students fill out the K-W-L chart they are repeatedly asked, What do you know?, What do you want to know?, What did you learn? further probing them to think at higher levels.
- **Modeling:** The teacher models the research steps and presents models for exemplary work with a student sample presentation and field guide. A class K-W-L chart is completed and modeled before students work on individual charts.

- Classroom Management: The students use computer templates and storyboard planners to create their field guide pages and multimedia presentations. This allows for quick and easy assembly.