

Biomes of Africa

6th grade

Bryan Station Middle School

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Content Areas: Social Studies, Science, Language Arts/Humanities



Organizer:

How do biomes affect the people that live within them?

Academic Expectations and Demonstrators

1.13 Students make sense of ideas and communicate ideas with the visual arts.

Integrate the elements and principles of design with varied visual media to communicate ideas.

1.16 Students use computers and other kinds of technology to collect, organize, and communicate information and ideas.

Express information and ideas creatively using technology

(Secondary Expectations 1.11 Students write using appropriate forms, conventions, and styles to communicate ideas and information to different audiences for different purposes.

1.12 Students speak using appropriate forms, conventions, and styles to communicate ideas and information to different audiences for different purposes.

2.18 Students understand economic principles and are able to make economic decisions that have consequences in daily living.

Analyze relationships among economic factors (e.g., political structure, natural resources, population, technology) and the interdependence of nations.

2.19 Students recognize and understand the relationship between people and geography and apply their knowledge in real-life situations.

Analyze geographic characteristics to explain human/regional relationships.

(Secondary Expectation 2.17 Students interact effectively and work cooperatively with the many ethnic and cultural groups of our nation and world.)

2.22 Students create works of art and make presentations to convey a point of view.

Plan, produce, present, and/or perform original and existing individual and group works of art using appropriate elements, concepts, and principles of visual arts and drama.

2.3 Students identify and analyze systems and the ways their components work together or affect each other.

Investigate and illustrate a system; identify its components and interrelationships with other systems.

(Secondary Expectation 2.6 Students understand how living and nonliving things change over time and the factors that influence the changes.)

Essential Questions

- What is a biome?
- How does the geography of the region affect the biomes?
- How do biomes affect the culture of region?
- What affect do biomes have on the economy of a region?

Culminating Performance

Upon completion of our unit of study, the students will be divided into groups. Each group will be assigned a biome. They will design a PowerPoint presentation on their biome covering essential questions. Each group will create a dramatic presentation using a character to explain the information the students have gathered on their biome.

Scoring Guide/Rubric

Power Point Presentation

Scoring	4	3	2	1
Content	Answers 5 questions specific to biome giving details	Answers 5 questions in regard to biome with limited detail	Answers 3-4 questions or does not answer specific to biome	Answers 1-2 questions
Organization	Logical order	Minor lapses in organization	Evidence of organization	No pattern of organization is evident
Presentation Format/Mechanics	Presentation style is focused, efficient with no grammatical or mechanical errors	Presentation style is focused, efficient with few grammatical or mechanical errors	Some aspects of presentation are distracting with noticeable grammatical or mechanical errors	Errors in grammar and mechanics, as well as style, make presentation difficult to understand
Vocal Qualities	Eye contact maintained. Voice is clear and audible.	During most of the presentation, looks at audience, voice is clear and audible.	Few times, looks at audience, voice is muffled and hard to understand.	No eye contact. Voice makes one strain to hear and understand.

Dramatic Presentation Rubric

CATEGORY	4	3	2	1
Voice Projection /Expression	Voices of characters were always audible and expressive.	Voices of characters were usually audible to people and showed some expression.	Voices of characters were sometimes audible and showed little expression.	Voices of characters were rarely audible, mono-toned and not expressive.
Scenery	Scenery was creative, added interest to the play, and shows climate and characteristics of the biome.	Scenery was creative and shows climate and characteristics of the biome.	Scenery did not get in the way of the character. Shows little about climate and characteristics of the biome.	Scenery got in the way of the character OR distracted the audience. No evidence of climate or characteristics of biomes.
Playwriting	Play was creative and really held the audience's interest.	Play was creative and usually held the audience's interest.	Play had several creative elements, but often did not hold the audience's interest.	Play needed more creative elements.
Staying in Character	Characters accurately portrayed the people and culture of the biome throughout the performance.	Characters accurately portrayed the people and culture of the biome through almost all of the performance.	Characters tried to portray the people and culture of the biome through some of the performance.	Characters actions were inappropriate.

Evaluation Component:

Prior to beginning this unit, students will be asked "How do biomes affect the people that live within them?" Students will be scored:

4 if they correctly identify 4 ways biomes affect the people who live within them.	3 if they correctly identify 3 ways biomes affect the people who live within them.	2 if they correctly identify 2 ways biomes affect the people who live within them.	1 if they correctly identify 1-way biomes affect the people who live within them.
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After students complete and present their projects, students will be given the following open-ended response question, "Comparing all the biomes, in which biome would you live and why?"

4	3	2	1
Identifies one biome and gives four valid reasons why they would live there.	Identifies one biome and gives three valid reasons why they would live there.	Identifies one biome and gives two valid reasons why they would live there.	Identifies more than one biome or doesn't identify an actual biome and attempts to give reasons.

Knowledge (Core Content)

Writing

PURPOSE/AUDIENCE

The writer establishes and maintains a focused purpose to communicate with an audience by

- narrowing the topic to establish a focus
- analyzing and addressing the needs of the intended audience
- adhering to the characteristics of the form
- employing a suitable tone
- allowing voice to emerge when appropriate

IDEA DEVELOPMENT

The writer develops and supports main ideas and deepens the audience's understanding by using

- logical, justified, and suitable explanation
- relevant elaboration
- related connections and reflections
- idea development strategies (e.g., bulleted lists, anecdotes, examples, graphics) appropriate for the form

ORGANIZATION

The writer creates unity and coherence to accomplish the focused purpose by

- engaging the audience and establishing a context for reading
- placing ideas and support in a meaningful order
- guiding the reader through the piece with transitions and transitional elements
- providing effective closure

SENTENCES

The writer creates effective sentences that are

- varied in structure and length
- complete and correct

LANGUAGE

The writer demonstrates

- effective word choice
 - strong verbs and nouns
 - concrete and/or sensory details
 - language appropriate to the content, purpose, and intended audience
- concise use of language
- correct usage/grammar

CORRECTNESS

The writer demonstrates

- correct spelling
- correct punctuation
- correct capitalization
- appropriate documentation (e.g., citing authors or titles within the text, listing sources) of ideas and information from outside sources

Science

- SC-M-2.1.7** Global patterns of atmospheric movement influence local weather. Oceans have a major effect on climate, because water in the oceans holds a large amount of heat.
- SC-M-3.5.1** A population consists of all individuals of a species that occur together at a given place and time. All populations living together and the physical factors with which they interact compose an ecosystem.

Social Sciences

- SS-M-3.1.1** Productive resources (land, labor, capital) are limited and do not satisfy all the wants of individuals, societies, and governments (scarcity).
- SS-M-4.3.2** Human populations may change and/or migrate because of factors such as war, famine, disease, economic opportunity, and technology.

Humanities

- AH-M-3.1.31** Elements of drama: plot development, rising action, turning point, falling action, suspense, theme, language, empathy, motivation, discovery
- AH-M-3.1.32** Elements of production: staging, scenery, props, lighting, sound, costumes, and make-up
- AH-M-3.1.41** Create a script that can be used in a dramatic performance. [PE] (2.22)
- AH-M-3.1.42** Use the elements of production to create a dramatic work. [PE] (2.22, 2.23)

Skills & Abilities (need to complete Culminating Performance)

- ***Writing Process***
- ***Research***
- ***Critical Thinking***
- ***Obtain and use resources***
- ***Technology Skills (Internet Searching, PowerPoint, Inspiration)***
- ***Basic presentation and drama skills***
- ***Characteristics/Effect/Economics of biomes***
- ***Cultural indicators***
- ***Basic economic factors***
- ***Basics of Art***

Technology Standards

- T3.2.2 Use correct grammar, mechanics and spelling
- T5.3.4 Evaluate web site results from a search
- T6.5.1 Choose appropriate information for purpose and audience
- T4.4.2 Access and navigate web sites
- T4.4.2.3 Hyperlinks
- T4.4 Locate information using the Internet
- T6.5 Create a presentation or product using application software.

Instructional/Assessment Activities

Teachers will begin the unit when school resumes in January. The culminating event will be presented at the Renaissance night, February 20th, 2002. These activities will be presented and completed in the individual 6th grade classes during this time frame.

Lesson Goals

Social Studies

Social Studies Topics Related to Biomes

Objective: Students will become familiar with the topics of economics, culture, conflicts, colonialism, and geography (political, physical).

Description: Over a period of days, students will cover the topics in class. They will be given a scavenger hunt to be done in the lab.

Assessment: The sites will be posted on a web page. Students will locate the information from pre-selected sites and will complete a printed worksheet.

Physical features of Africa

Objective: Students will study the physical features of Africa.

Description: Students will use a web-based activity answering questions to answer specific questions about the African continent.

Assessment: Students will hand in a sheet of the answers they found in the web-based activity.

Geography of Africa

Objective: Students will be given an overview of Africa.

Description: Students will review physical and political geography of Africa, including landforms and regions.

Assessment: Students will complete a worksheet of the above topics.

Africa's climate

Objective: Students will study the climate and its affects on Africa.

Description: Students will complete a KWL on climate in Africa.

Assessment: KWL

African Countries

Objective: Students will complete an activity matching African names and locations.

Description: Students will be given a map of African countries and locations. They will then match the locations to the country.

Assessment: Completed activity

PowerPoint

Objective: Creating a Power Point

Description: Students will be reviewed on the basics of creating a PowerPoint Presentation. They will then create the presentation.

Assessment: Culminating event/PowerPoint Presentation

Scavenger Hunt on Culture

Objective: Students will learn about the cultures of Africa.

Description: Students will use a web-based scavenger hunt on the cultures of the African people.

Assessment: Students will complete the web-based hunt and hand in the answers.

Science

Scavenger Hunt Biomes

Objective: Students will become familiar with biomes.

Description: Students will be given a web scavenger hunt

<http://webtech.kennesaw.edu/mkaltman/shunt.htm> with all the types of biomes found in the world. They will take the data found and discuss in class the information and how it relates to the first essential question.

Assessment: Students will locate the information from pre-selected sites and will complete a printed worksheet.

Different Biomes

Objective: Students will learn that there are different biomes and they are located throughout the world.

Description: Class discussions will cover the topics of different biomes and where they are located, different characteristics, similar characteristics, etc.

Assessment: A short quiz on identifying, listing characteristics of biomes will be given.

Biomes Specific to Africa

Objective: Students will learn about specific biomes in Africa .

Description: Students will discuss the three biomes specific to Africa and relate them to areas of the United States.

Assessment: Participation in the discussion and the notes taken on the discussion.

Diseases and Medicine of the Rainforests

Objective: Students will learn about the diseases and medicines related to the rainforest.

Description: Students will look at the animals, disease and medicines that come from this area.

Assessment: Students will watch a video on rainforests, complete a worksheet of the video and then will participate in a discussion about the diseases and the medicines of the rainforest.

Deforestation

Objective: Students will learn how global warming affects the biomes of Africa and the world.

Description: Students will learn the effects of global warming as it relates to the world, and specifically to the biomes of Africa. (Students will learn that animal and plant extinction occur because of global warming.)

Assessment: KWL

Savannah and Prairie

Objective: Students will learn about the Savannah and the Prairie of Africa and how they relate to the grasslands of Africa.

Description: Students will create a Venn diagram comparing and contrasting the grasslands of the United States to the grasslands of Africa.

Assessment: Venn diagram

Desert

Objective: Students will learn about the deserts of Africa and relate them to the United States.

Description: Students will create a Venn diagram comparing and contrasting the deserts of Africa to the deserts of the United States.

Assessment: Venn diagram

Desert/Weather

Objective: Students will study the influence that the weather and the desert have on each other.

Description: Students will look influence that the weather and the desert have on each other.

Assessment: Discussion/paired with the open-ended response question after the lesson on animals and vegetation.

Plants and Vegetation of the Desert

Objective:

Description: Students will learn how the plants and vegetation have adapted to the desert.

Assessment: Discussion/paired with the open-ended response question after the lesson on animals and vegetation.

Language Arts

Literature of the Biomes

Objective: Students will study the literature related to the biomes of Africa.

Description: Students will look at a variety of literary samples dealing with Africa. They will look at the characteristics of each sample and will identify the biome from which each sample comes.

Assessment: Students will write their own story. Students will present the story to the class.

Costume and Set Design/Playwriting techniques and formats

Objective: Students will begin to understand how to create an accurate dramatic presentation.

Description: Students will look at web sites and visual materials, which they would find with their chosen biomes. They will examine African folktale plays and practice the elements of performance that they have studied.

Assessment: Students will create appropriate costumes and scenery for a play.

Play

Objective: Students will write a play based on the people and culture of their biome.

Description: Students will write a play based on their biome.

Assessment: Culminating event rubric

Descriptive Writing for Bellringers

Objective: Students will create descriptive writing pieces.

Description: Students will write descriptive paragraphs about selected African masks and pinpoint the geographic areas from which the masks came.

Assessment: This activity is part of a required journal writing.

Descriptive Bellringers

Objective: Students will create descriptive writing pieces.

Description: Students must write their reaction to the African proverb.

Assessment: This activity is part of a required journal writing.

Critical Resources

Technology

Instructional resources

- <http://www.ngo.grida.no/soesa/nsoer/Data/vegrsa/savanna.htm>
- <http://spacelink.nasa.gov/Instructional.Materials/On-line.Educational.Activities/Earth/>
- http://www.ttsd.k12.or.us/schools/tuhs/tuhslib/tuhs_biomes1.html

- <http://www.fi.edu/tfi/units/life/habitat/habitat.html>

Earth Floor Biomes

<http://www.cotf.edu/ete/modules/mseese/earthsysflr/biomes.html>

Enchanted Learning Biomes and Habitats

<http://www.enchantedlearning.com/biomes/>

Hardware/Software

LCD projector

Screen or Smart Board

PowerPoint

Inspiration

Handout on creating Multiple PowerPoint Slide Shows in Pet Project folder and on

<http://www.fayette.k12.ky.us/instructtech/trt3>

Human Resources

Division of Teaching Responsibilities

Science:

Animals

Plants

Natural Resources

Climate

Diseases

Inspiration (used for Venn diagrams, KWL, etc.)

Social Sciences:

Economic Principles/Natural Resources/Subsistence Farming/Culture & Groupings

Conflicts

Colonialism

Geography

PowerPoint

Language Arts:

Play writing

Performance techniques

Folktales/Short stories

Set Design/Costumes

African Drama

Should time allow, these resources may be used to enhance this unit.

Drum Corps from BT Washington

Native Speakers from School community and City

