

A Habitat Makes a Home

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Grade Level 2
Duration 5-6 class periods

National Standards
GEOGRAPHY
Element 2: Places and Regions
 4. The physical and human characteristics of places
Element 5: Environment and Society
 15. How physical systems affect human systems

AZ Standards
ELA
Reading
Craft and Structure
 2.RI.4 Determine the meaning of words and phrases in a text relevant to a 2nd grade topic or subject area.
 2.RI.5 Know and use various text features to locate key facts or information in a text efficiently.
Writing
Production and Distribution of Writing
 2.W.4 With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose.
SCIENCE
Core Ideas for Using Science
 U2: The knowledge produced by science is used in engineering and technologies to solve problems and/or create products.

Arizona Social Science Standards
GEOGRAPHY
Human-environment interactions are essential aspects of human life in all societies.
 2G2.1 Explain how weather, climate, and other environmental characteristics affect people's lives in a place or region being studied.

SIOP Elements		
Preparation Adapting content Linking to background Linking to past learning Strategies used	Scaffolding Modeling Guided practice Independent practice Comprehensible input	Grouping Option Whole class Small groups Partners Independent
Integrating Processes Reading Writing Speaking Listening	Application Hands on Meaningful Linked to objectives Promotes engagement	Assessment Individual Group Written Oral

Arizona English Language Proficiency Standards
Grade 2
Basic
Listening and Reading
 Standard 1 By the end of each language proficiency level, an English learner can construct meaning from oral presentations and literary and informational text through grade appropriate listening, reading, and viewing.
 B-3: identify key details that support the main idea or message.
 B-5: identify and describe similarities and differences between two texts.
 Standard 2 By the end of each language proficiency level, an English learner can determine the meaning of words and phrases in oral presentations and literary and informational text.
 B-1: determine the meaning of frequently occurring academic and content-specific

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words and phrases.

Speaking and Writing

Standard 3 By the end of each language proficiency level, an English learner can speak and write about grade appropriate complex literary and informational texts and topics.

B-3 compose informational text that includes details to develop a topic while using appropriate conventions.

B-4: produce writing with appropriate organization on a variety of topics, experiences, or events using sentence frames.

Overview

Everyone's daily life is affected by the environment in which they live. As students think about different environments, they will become more aware of the impact the environment plays on the forms of shelter people and animals have created based on their habitats.

Purpose

In this lesson, students will become familiar with different habitats and the material available in each. Students will analyze a habitat and create a home based on the climate and materials available helping them understand how physical systems affect human systems. This lesson contains strategies for diverse learners (ELLs).

Key Vocabulary

habitat: the natural home of a plant or animal.

shelter: a place to live, considered as one of the basic needs of life

climate: the typical weather conditions in a particular area

natural resources: things that exist in nature and can be used by people

hot desert: a large area of land where it is always very dry, there are few plants, and there is a lot of sand or rocks, usually hot or warm

tropical rainforest: a forest with tall trees that are very close together, growing in an area where it rains a lot and is warm all year round

temperate forest: a large area of land that is covered with trees, it has four seasons

Materials

- Vocabulary Cards
- Teacher Script
- Pictures to Use with Teacher Script
- Habitat Video Recording Sheet
- Habitat Notes graphic organizer
- Design A Home For Your Habitat
- Shelter Description

- Sentence Stems
- Rubric for Design a Home
- Rubric for Shelter Description
- Post it notes
- Biome slide show and biome cards can be found at <https://askabiologist.asu.edu/biology-bits/biome-bits>
- Free account can be found at <https://www.getepic.com/educators> if you would like to use the online books

Objectives

The student will be able to:

1. explain how physical systems (climate and natural materials) affect human systems (shelter).
2. describe different habitats according to their characteristics including climate and natural resources.
3. explain how the natural resources available determine the type of natural shelters that can be created in a particular habitat.
4. design an appropriate shelter for a habitat based on available materials and climate.

Procedures

Before starting this lesson students should have some familiarity with the habitats of animals and the various types of homes in which animals live.

SESSION ONE

Engage:

1. Before you begin this lesson, copy enough Vocabulary Cards so that each student will have a set. You will only use one set of cards per partner groups at this point but each student will need their own set for an assessment at the end. Cut the cards apart and distribute 1 set containing words, definitions, and pictures to each partner group. (**Grouping Option: Partners**)
2. Have partners separate the cards into 3 stacks (pictures, definitions, words). One partner will spread the **picture** cards out. Instruct students to each take a turn at drawing a **word** card and

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placing it under a picture. They should not disagree at this point. They also may have more than one card under a picture or no card under a picture. Then the partners will take turns drawing a **definition** card and adding it to a picture. They may have more than one definition or none. After discussing what should change, they can move any cards to a new picture at this time.

3. When most of the students are satisfied with matching the 3 cards (word, definition, picture), project the correct order. Discuss each vocabulary word, its definitions and corresponding picture.
4. Use the Teacher Script to reinforce the vocabulary.
5. Have students repeat steps 2-3.
6. Store vocabulary cards in baggies and save for final session.

SESSION TWO

Before this section you may want to create an Epic account and visit

<https://askabiologist.asu.edu/explore/biomes> to familiarize yourself with the layout and content.

Explore:

1. Distribute the Habitat Video Recording Sheet to each student. Explain that they will visit different habitats recording what they notice in each on their worksheet.
2. Project the virtual field trip to a desert habitat found at <https://askabiologist.asu.edu/games-and-simulations/virtual-reality-tours-biology> and model taking notes so students will understand what is expected on their Habitat Video Recording Sheet. **(Scaffolding: modeling)**
3. Discuss what was recorded and add any additions to worksheet. **(Scaffolding: Guided Practice)**
4. Repeat the process with tropical rainforest and temperate forest virtual field trips. This time students take notes with less modeling by the teacher.

SESSION THREE

Before you begin this session, make paper copies of the biome slides found at

<https://askabiologist.asu.edu/biology-bits/biome-bits> or plan to have students access the information on hand held devices.

1. Project the Habitat Notes graphic organizer to the students and explain that later in the day they will be completing this graphic organizer on a habitat. View the slide show “Biome Bits” at <https://askabiologist.asu.edu/sites/default/files/bits/pdf/aab-biology-bits-biome-slideshow.pdf> and modeling how to highlight key words on a biome.

(Scaffolding: Modeling)

2. Distribute the Habitat Notes graphic organizer to each student. Divide class into 9 groups—one for each habitat: (tropical rainforest, temperate forests, deserts, tundra, taiga, grasslands, savanna, freshwater, marine). Distribute paper copies of the biome slides from Ask a Biologist website or have students access the website and find their biome.
3. Instruct groups to work together to read and highlight key words. They should record any information they find on their Habitat Notes graphic organizer.
4. If a group finishes early, additional information can be found on the virtual field trip designed for older students at <https://askabiologist.asu.edu/explore/biomes> or this group can explore the collection of books on Epic if you have created an account. <https://www.getepic.com/app/user-collection/3165503>

SESSION FOUR

Explain:

1. Introduce kinds of shelters by reading Houses and Homes by Pam Holden, The Three Little Pigs or a like book.
2. Have the class discuss why people/pigs may have built the type of shelter/home that they did.
3. Distribute the Design a Home for Your Habitat worksheet and their Habitat Notes graphic organizer from the previous session. Instruct students to answer the questions about what kind of natural resources and climate their biome had in the group work from Session Three. Then they will design a home based on the materials and climate in their assigned habitat. **(Grouping Option; individual) (Application: Hands on, Meaningful, Linked to objectives, Promotes engagement)**
4. As students are completing their drawings, share the Rubric for Design a Home so students can check to see if they have a title, labels, etc. **(Scaffolding: Comprehensible input)**
5. Once the home is designed, instruct students to write about their home design on a piece of lined notebook paper. Project the **Sentence Stems** that will help them write about their home/shelter.
6. When the sentences are completed on the notebook paper, they should share their writing with a partner and get feedback to improve their work. **(Integrating Processes: Speaking)**
7. Share the Rubric for Shelter Description and emphasize what is expected and distribute the Shelter Description worksheet.
8. Have students complete the writing assignment.

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SESSION FIVE (recommended but optional)

Elaborate:

Before this session create your free Epic account or get books from your library that discuss animal homes.

1. The purpose of this session is to look at animal homes in different habitats and analyze how the environment has controlled the kinds of homes the animals can have. I recommend Animals Building Homes by Wendy Perkins or create an Epic account for free at <https://www.getepic.com/educators> If you create an account, you can access a collection of books already put together at <https://www.getepic.com/app/user-collection/3165503>

SESSION SIX

Before this lesson hang up the biome slides from Session Three around the room, get the baggies of vocabulary cards from Session One, and have student shelters and descriptions from Sessions Four.

Evaluate:

1. Distribute the baggies of Vocabulary Cards to each student. Have students re-sort pictures and match words and definitions. When students are finished matching the word, image, and definition, assess their work.
2. Distribute the student designed shelters from Design a Home for Your Habitat and Shelter Description activities in Session Four. Have students place their shelter and description by their habitat slide.
3. Distribute post it notes to students and have them take a gallery walk and leave post it notes for other students about their work.

Assessment

Geography, Science, and ELA

The Habitat Video Recording Sheet can be graded for completeness and accuracy. Mastery will be considered 80% or higher.

The Habitat Notes graphic organizer can be graded for completeness and accuracy. Mastery will be considered 80% or higher.

The Design A Home For Your Habitat can be graded using the Rubric for Design a Home. Mastery will be considered a 7 or higher.

The Design A Home For Your Habitat can be graded using the Rubric for Design a Home. Mastery will be considered a 7 or higher.

The Shelter Description can be graded using the Rubric for Shelter Description. Mastery will be considered a 7 or higher.

ELA

Vocabulary acquisition can be measured with the Vocabulary matching activity in Session Five. Mastery will be considered 75% or higher in correctly matching the images, words, and definitions.

Extensions

Students can build a model of their home based on their design. Collect a variety of sticks, rocks, leaves, etc... for students to build with.

Visit

<https://earthobservatory.nasa.gov/images/40554/human-ecosystems> and discuss human settlement patterns and reasons for large populations or small populations.

Compare human settlement patterns to biome maps at https://askabiologist.asu.edu/sites/default/files/resources/coloring_pages/pdf/aab-biome-activity.pdf

Sources

Evan Brus. "Biome Bits". ASU - Ask A Biologist. 23 Oct 2014. ASU - Ask A Biologist, Web. 15 Jul 2019. <https://askabiologist.asu.edu/biology-bits/biome-bits>

<https://www.getepic.com/app/user-collection/3165503>

<https://www.getepic.com/educators>

<https://earthobservatory.nasa.gov/images/40554/human-ecosystems>

https://sedac.ciesin.columbia.edu/data/collection/ant_hromes

<https://earthobservatory.nasa.gov/images/40554/human-ecosystems>