Introduction
INTRODUCTION

Title:  “ANIMALS AND PLANTS HABITATS”

Grade level: Second grade, Science

Target group: Content based ESL class

Source of written reading materials: Science 2, Department of Educational Editions, Richmond, Publishing 2002

Source of lessons designed: Science 2, Department of Educational Editions, Richmond, Publishing 2002

Lessons:  

Lesson 1  “The Arctic”
Lesson 2  “Desert Life”
Lesson 3  “The Rain Forest”
Lesson 4  “Animals and their Habitats”
Lesson 5  “The Arctic Tern: A migratory Bird”

Main Goals: At the end of this unit, I want my students to know:
1. The Arctic as a natural habitat
2. The desert as a natural habitat.
3. The rain forest as natural habitat
4. The animals and plants that live on these different ecosystems.
5. Respect for all animas and plants.
## Knowledge

<table>
<thead>
<tr>
<th>ESL Language</th>
<th>Language</th>
<th>Content</th>
<th>Learning Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve students' academic language.</td>
<td>Improve students' academic language through description of different habitat and animals.</td>
<td>Learn concepts appropriate to maturity level. Relationship between a living thing and its habitat.</td>
<td>Comparisons between the environmental conditions of these habitats and the animals and plants living in them.</td>
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## Objectives

### Knowledge

<table>
<thead>
<tr>
<th>ESL Language</th>
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</tr>
</thead>
</table>
| 1. Know the vocabulary related to the topic.  
2. Describe some animals and their habitats.  
3. Describe actions animals can do.  
4. Describe weather.  
5. Describe climate conditions. | 1. Know the names of some animals and plants and their habitats.  
2. Describe some different habitats and the animals living in them. | 1. Know the Arctic as a natural habitat and the animals and plants that live there.  
2. Know the desert as a natural habitat and the animals and plants that live there.  
3. The rain forest as natural habitat and the animals and plants that live there. | 1. Systemic observation of drawings and photographs.  
2. Comparison of animals and the ways they have adapted to different environment.  
3. Formulation of hypothesis about the flora and fauna of a particular habitat.  
4. Follow instructions. |

### Skills

<table>
<thead>
<tr>
<th>ESL Language</th>
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<th>Content</th>
<th>Learning Strategies</th>
</tr>
</thead>
</table>
| 1. Complete written sentences about a polar bear.  
2. Read a paragraph and answer some questions about the Arctic Tern.  
3. Describe some animals and plants. | 1. Describe different animals and habitats.  
2. Write an adventure story in an specific ecosystem.  
3. Formulate hypothesis about flora and fauna of a particular habitat.  
4. Discuss facts related. | 1. Name animals and plants that live in the arctic, desert and rain forest.  
2. Talk about type of clothing people wear in that habitat.  
3. How people can protect themselves from the harsh weather conditions on each ecosystem. | 1. Determine differences between some animals and their habitat.  
2. Hypothesize about flora and fauna.  
3. Associate realia or diagrams with written labels to learn vocabulary |

### Beliefs

<table>
<thead>
<tr>
<th>ESL Language</th>
<th>Language</th>
<th>Content</th>
<th>Learning Strategies</th>
</tr>
</thead>
</table>
| 1. Interest in learning about different animals, plants and habitats they are part of. | | | 1. Respect for all animals and plants  
2. Interest in their protection and conservation. |
Lesson 1
Lesson 1

Content objectives:

1. Learn the Arctic as a natural habitat and the animals and plants that live there.
2. Name the animals that live in the Arctic.
3. Set up true facts about the Arctic.
4. Select which animals belong to the Arctic

Language objectives:

1. Name some animals that live in the Arctic
2. Describe orally the Arctic
3. Describe some animals that live in the Arctic
4. Answer some questions related to the topic
5. Discuss how people can protect themselves from the harsh weather conditions of weather.
NOTIONAL FUNCIONAL CHART LESSON 1

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>SITUATION</th>
<th>FORMULA</th>
<th>GRAMM. STRUCTURE</th>
<th>VOCABULARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describing orally a</td>
<td>The Arctic</td>
<td>- I can see a lot of _____.</td>
<td>Nouns: fox, land, fur, paws,</td>
<td>Arctic</td>
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<tr>
<td>picture</td>
<td></td>
<td>- I can see few _______.</td>
<td>Adjectives: small, big,</td>
<td>arctic fox</td>
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<tr>
<td></td>
<td></td>
<td>- People can wear _____.</td>
<td>hot, cold.</td>
<td>ice</td>
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<td></td>
<td></td>
<td>- There is a _______.</td>
<td>Determiners:</td>
<td>north pole</td>
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<td></td>
<td></td>
<td>- There are few _______.</td>
<td>- Quantifiers (a lot of, few)</td>
<td>polar bear</td>
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<tr>
<td></td>
<td></td>
<td>- What am I?</td>
<td>- Demonstratives (there is, there are)</td>
<td>snow</td>
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<tr>
<td></td>
<td></td>
<td>- It is _________.</td>
<td>Interrogative form verb to be</td>
<td>temperature</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- The ground is _______ and _______.</td>
<td>Simple form</td>
<td>walrus</td>
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<tr>
<td></td>
<td></td>
<td>- The arctic bear lives ___ _______.</td>
<td>Present tense</td>
<td>land</td>
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<td>fur</td>
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<td>igloo</td>
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<td></td>
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<td>habitats</td>
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</tbody>
</table>
Lesson 1:
Materials: Visuals, Science book pages 70, 71, 72, 73 a map of the American continent if it is available, the board, the big globe, real cloths, visuals, big number chart, markers, big graphic organizers, construction paper, photocopies page 118 teacher’s guide 1 per student (28) and teacher’s guide.

Building background:
Warm up:
Activity 1 Show a drawing of animals and a drawing of plants, elicit to the students names of animals and plants they know and write them under the corresponding heading. Divide the class into 5 teams of 5 students be careful to arrange beginners with intermediate or advance. This teams are going to work together along this class, you have to monitor the groups and change some students if it is necessary.
Set facts about animals and plants and tell the students the first to guess which animal are you talking about, wins a point for his/her team. Each member of the group just has one opportunity to participate. In this way all of them have to participate.
It’s black and white. It’s a bird. It lives at the south pole What is it? (the penguin) give four animals or plants more.

Activity 2. Have students open the Science book on page 70 and look at the map continue working in teams as in the activity before. Ask What can you see? What’s the name of the continent?, What animals and plants do you know? Name them and ask to the students to find them on the map. Then have students write the corresponding numbers next to the names.

Check the answers asking on member of each team say one by one. 
Encourage the intermediate to help the beginners.

Activity 3. Explain that everywhere on earth there are specific plants and animals, and that we should try to preserve (convey meaning paraphrasing, with mimic or gestures) this valuable biodiversity. Ask to the students what do they thing.

With beginning students do some direct questions like: What is this? What color is it? Is it big or small? Do you like animals?
Activity 4. Tell students to pay attention to the photos on page 71 and explain the animals as the humans need homes to live and their livings are as different as ours. They live in different habitats. Some of the habitats we are going to learn about are called: The Arctic, (show the picture), the rain forest (show the picture), and the desert (show the picture). The pictures on page 71 represent the savanna, the desert and the arctic. Have students draw another animal that live in each habitat on their book. When the complete the activity, have them share their pictures with their classmates. Ask each member of the group to say the other what they draw and why, then ask some of them to share with the whole class.

Recess time 15'

Activity 5. Show students the globe (real) and point to North Pole. Explain this area is called Arctic. Then point out the south part that is called Antarctic. On the board paste the headings:

What you know             What you don’t know

Set pairs with one beginner and one intermediate or advance, give them 3 minutes to think and write on a peace of paper some ideas. Then ask some students to come to the board and write one thing they know and one they do not know. Analyze what is written and then frame the things they are going to learn in this unit: They are going to identify some animals and their habitats, and how to describe different habitats and the animals living there.

For beginners convey mimic with mimic, gestures and paraphrasing.

Emphasize that environment (convey the meaning con gestures and mimic, and load the peace of speech) is very, very cold there, and people have to wear winter cloth and special houses. Keep the pairs as they are and ask the following question:

How the animals in the arctic can live there?

Expect answers like:

Polar bears have a lot of fur. Explain that human beings do not have fur, but they have special clothing. Human beings can live in very cold or very hot places because he has adapted to the environment.

Beginners maybe are going to answer in Spanish. That’s O.K.
Ask how the animals in the arctic can live there? Students may answer Polar bears have special fur. Seals have special four. Etc. Explain human beings can live in very cold and very hot places.

Activity 6 Recycle vocabulary of winter cloths seen before on unit 4. Ask students to put on the winter cloths and say I am wearing a jacket. I am wearing gloves and scarf. Etc.

Activity 7 Ask students to observe the picture on page 72. Have students to observe the photo and ask these questions: What’s the landscape like? Do you thing it’s cold? What covers the ground? Are there any animals? Are there any plants? Students will answer There is snow. It is cold. Ice. A bear. No plants.

Activity 8 Read out the sentences (load the speech, paraphrase and convey meaning to the beginning students and have students who are still set in pairs mark the true sentences according to the photo. Check the answers with them.

Activity 9 Read out the following statements and have students stand up if they refer to the arctic and remain seated if they do not.

- Snow covers the ground.
- It’s very hot.
- There are tall trees.
- It’s very cold.
- You can see polar bears there.
- There are a lot of plants
- There are a lot of animals

Activity 10 Have students name everything they can see in the pictures. Write a list on the board (e.g. man, woman, dogs, coats, igloo, rope, mittens, boots, trees, grass, flowers, children, bush) Ask students why the people are not wearing the same kinds of clothes and why the people are not wearing the same kinds of cloths and why there are no trees in the first picture. Then have them complete the activity in pairs.

Activity 11 Show the students a picture of a polar bear. Have students to read on their books the facts about the polar bear. Beginners can underline key words as lives in the Arctic, big has a lot of fur, can live in very cold places. Then ask them to circle the drawing that shows what the polar bear can eat. Students have to circle the seals and
the fish. Explain that polar bears are excellent swimmers. They eat seals, fish, seagulls and even whales. The often go into populated areas in search of food. (Show pictures to convey meaning).

Activity 12 Have students look at the photos on the page 73, point out the animals’ fur, paws and fins. Ask which animals live on land and which lives primarily in water. Ask students to fill in the blanks on the book.

Activity 13 Set students in pairs and ask them to think and then write if people can live in the arctic, encourage students to write and say how people can protect themselves from the harsh (convey meaning) severe, weather conditions of the arctic.

Activity 14. Show the next graphic organizers to the students and ask them to complete with the description of the arctic.

<table>
<thead>
<tr>
<th>Habitat</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Arctic</td>
<td>There is snow.</td>
</tr>
<tr>
<td></td>
<td>It is cold</td>
</tr>
<tr>
<td></td>
<td>There are polar bears.</td>
</tr>
<tr>
<td></td>
<td>There are few plants.</td>
</tr>
</tbody>
</table>

Have them do their own graphic on their notebooks in pairs.

Activity 15 Write these sentences on the board. I am a ______ I have _____ and _______. I can _______, but I can’t ______. Lead students to come to the board and complete the sentences about the polar bear. Ask them to copy the sentences on one half of a sheet of paper and to complete them about an arctic animal. It can the fox, the seal, the fish, etc. Then ask them to draw the animals on the other half. Have students cut a piece of paper large enough to cover their drawing and write What am I? On it. Then have them glue the paper over their picture to make a flap. Ask students to exchange their papers around the class. Have them read the sentences, guess the animal and then lift the flap to check.

Activity 16. Elicit information about Eskimos (e.g.) they live in igloos, they ride sleds, they wear fur coats, they hunt seals and fish, etc) Ask each student to draw and cut out an igloo using construction paper. Then have them cut small squares of paper to use as ice blocks, and glue them onto the igloo.
Activity 17. Give a photocopy of the worksheet 13 ask students to work individually and complete the chart only identify the animals that live in the arctic and write their names on the correspondent column.
Lesson 2
Lesson 2

Objectives:

Language:
1. Describe animals that live in deserts.
2. Give information about desert.
3. Explain things animals can or can’t do into their habitats.
4. Give reasons for answers.
5. Write correctly some irregular plurals like: cactus- cacti, oasis-oases, man-men.

Content
1. Know the desert as ecosystem and the animals and plants living there.
2. Answer questions related to the topic

Learning Strategies
1. Observe and identify the desert animals
2. Follow instructions to follow a receipt of date cookies.
<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>SITUATION</th>
<th>FORMULA</th>
<th>GRAMMAR STRUCTURE</th>
<th>VOCABULARY</th>
</tr>
</thead>
</table>
| Request information about desert. Give information about desert | The desert | Can plants _____? Yes, they _____.
The penguin cannot _____.
Where the penguin _____? There is an _____.
There are some _____.
There is _____.
There are _____.
Modal can
Present simple
Affirmative, negative interrogative form
Question words Where,
Irregular plurals Oasis - Oases
Cactus - Cacti | Cactus, cacti, camel, desert fox, Aosis- oases, ocean, palm tree, penguin, pine tree. |
Lesson plan

Materials and resources:
- Sand, white glue, paper, blue water paint, cardboard, modeling clay, scissors, cloth,
- Visuals, slips of paper, word cards, graphic organizers
- Science book pages 74 , 75, teacher’s guide pages 80, 81.
  - 5 cups dates
  - 5 cups nuts
  - 120 marshmallows
  - 2 1/2 cup evaporated milk
  - 5 teaspoon vanilla
  - 10 cups cookie crumbs
  - 5 mixing bowls
  - 5 large spoons
  - Sharp knife

Procedure:

Activity 1. Point out to the desert (drawing on the board), reduce linguistic load and explain clearly that the desert is an ecosystem and that the animals and plants (words learned in lesson 1) living there have to overcome (make gestures and mimic to explain this word) its severe environment to survive.

1. Divide the class into 5 groups. Ask them to name their teams and name one leader. Ask leaders to pick up the materials from the desk. Note: Be sure you have all levels students within each team)

2. Have each group make a model of a desert oasis (repeat several times the word “oasis” and say is the same as in Spanish, ask to the students What is an oasis? Receive the answers even in Spanish and ask again the question to the beginners students.

3. Paste the instructions previously written on large paper and repeat the steps twice. (With drawings)
   - Use sand mixed with white glue to make dunes (make mimic and gestures to clarify the directions)
   - Cardboard and modeling clay to make camels and palm trees. (convey meanings).
   - Paper painted blue to make a pond (give 20’ to finish the activity)
Activity 2

4. Explain that very few people live in the desert and those that do have adapted to the extreme conditions, intense heat during the day and freezing temperatures at night. They wear loose clothing because it creates air pockets, which insulate them from the heat. (show students pictures of the cursive words and make mimic and gestures to make them comprehensible) Nomads and other desert people often live in large airy tents. They travel on camels. (show students pictures of the cursive words and make mimic and gestures to make them comprehensible)

5. Have students use the cloth and clay to add some people to their models

6. Elicit information about the desert and write it on the board (e.g. camels, sand, hot days, snakes, cactus) Emphasize the most notable characteristics of the desert:

   - *The heat*
   - *The lack of water* (clarify these words with drawing on the board, mimic and gestures)

Activity 3

7. Ask students to open their science books on page 74 and elicit information about the drawing. Ask questions like What can you see on the desert photograph? What animals are those? How many trees can you count? Are there a lot of plants? Why can you see water?

8. Explain that the photo shows an “oasis” – a place in the desert where there is water. An oasis has trees and plants, and it is a meeting place for many animals. People often build villages around oases.

9. Show the word cards oasis – oases cactus-cacti man- men and explain that some nouns have irregular plurals. Repeat several times and have students repeat too.

10. Work with pairs (one low level and one intermediate or advanced) Read aloud and clearly the questions on the book and have students circle the correct answers.

   Have students circle the plant and the animal that do not live in the desert. Then have them complete the sentence. Point out that desert plants are very scarce and the most cacti are found only in the deserts of North and South America, non in African deserts. Explain the date palm is used to make houses, fabric, ropes, baskets, furniture and several food products.
Activity 4

11 Have students to add in the graphic organize the description of the desert the description of the desert.
12 Have students describe their animals and have their animals and have their classmates guess what they are:

Activity 5

Croos-curricular connections
Ask students if they have ever eaten a date. Comment the dates are the fruit of the palm tree, a favorite food of desert people because they are tasty and nutritious, and they keep well.
Explain that since there are few plants in the desert, the date is an important fruit for the people that live there.
Divide the class in teams of 5 and number each one. Give the instructions step by step and say they are going to follow the instructions and the one with the number is going to do the actions as teacher is saying them.
They are going to cook Date cookies.
1. Add vanilla to the milk
2. Combine all the ingredients except the crumbs
3. Roll the dough into small balls
4. Roll the dough into small balls
5. Roll each ball in the crumbs

[Picture 27]
Animal and Plant Habitats

Unit Breakdown

This unit focuses on a variety of ecosystems, each inhabited by specific animals and plants. It presents simple ecology concepts, such as the relationship between a living thing and its habitat. The unit examines three contrasting habitats: the Arctic, the desert and the rain forest. Each has well defined and easily identifiable characteristics. Throughout the unit, comparisons are made between the environmental conditions of these habitats and the animals and plants living in them.

Scientific Basis

A basic area of ecology deals with the environmental needs of living things. This area of ecology, a part of autoecology, studies each animal and plant and its direct interaction with the environment. This unit also introduces the study of classic ecology. It presents several ecosystems that are probably unlike those in which students live, but that will be familiar from books or television.

Introductory Pages

Write the headings Animals and Plants on the board. Elicit the names of animals and plants and write them under the corresponding headings.

Divide the class into teams. State facts about one of the animals or plants listed: It's black and white. It's a bird. It lives at the south pole. (A penguin.) The first student to identify the animal or plant wins a point for his or her team. Repeat several times.

Have students look at each ecosystem. Ask What type of habitat is it? What do you think the weather is like? What animal can you see? What other animals do you think live in the same habitat?

- Look at the map.

Have students look at the map. Tell them it has photos of different animals and plants that live in the Americas.

Name the animals and plants and ask students to find them on the map. Then have students write the corresponding numbers next to the names.
Discuss the idea that everywhere on earth there are specific plants and animals, and that we should try to preserve this valuable biodiversity. Explain that habitats must be respected, and hunting should be strictly regulated.

**Look at the photographs.**

Tell students that the photos represent three different habitats: the savanna, the desert and the Arctic. Elicit other animals that live in each habitat.

Have students complete the activity. Invite them to share their pictures with their classmates.
Lesson 1

The Arctic

Concept
The Arctic as a natural habitat and the animals and plants that live there.

Vocabulary
Arctic, arctic fox, ice, north pole, polar bear, snow, temperature, walrus.

ESL Expressing Concepts

This lesson may be used to review the following language:
Quantifiers
You can see a lot of animals. There are few plants in the Arctic.

Focus on Science

Arctic Facts
Materials: Globe.
Show students the globe and point to the north pole. Explain that the area near the north pole is called the Arctic. Write these headings on the board: What you know, What you don't know. Brainstorm ideas from the class and write them under the headings.
Stress the topic of survival in very cold environments, and talk about the type of clothing people wear and what the houses have to be like. Ask how the animals in the Arctic, such as polar bears and seals, have adapted to the cold. Comment that humans are the only animals that have adapted to living in very cold and very hot places.

The Arctic

- The area near the north pole is called the Arctic. Look at this photograph.

- Mark the true sentences. In the Arctic...
  - the ground is usually covered with ice and snow.
  - there are a lot of houses.
  - it is very cold.
  - you can see a lot of animals and plants.

- What can you see in the Arctic? Mark and color.

- The area near the north pole is called the Arctic. Have students observe the photo and ask these questions: What's the landscape like? Do you think it's cold? What covers the ground? Are there any animals? Are there any plants?

- Mark the true sentences.
Read out the sentences and have students mark the true sentences, according to the photo.
Read out the following statements and have students stand up if they refer to the Arctic and remain seated if they do not: Snow covers the ground. It's very hot. There are tall trees. It's very cold. You can see polar bears there.

- What can you see in the Arctic?
Have students name everything they can see in the pictures. Write a list on the board (e.g., man, woman, dogs, coats, igloo, rope, mittens, boots, trees, grass, flowers, children, bush). Ask students why the people are not wearing the same kinds of clothes and why there are no trees in the first picture. Then have them complete the activity.
Read and circle. What does the polar bear eat?

The polar bear lives in the Arctic. It is big and it has a lot of fur. It can live in very cold places.

Look at the arctic animals. Read and complete.

The ___________ lives in water and on land.
The arctic ___________ lives on land.
The polar bear's fur protects it from the cold.

Can people live in the Arctic?

Remember
- It is very cold in the Arctic. The ground is almost always covered with snow and ice.
- There are few plants in the Arctic. There are animals like polar bears and seals.
- These animals can live in very cold temperatures.

Read and circle. Have students complete the activity. Explain that polar bears are excellent swimmers. They eat seals, fish, seagulls and even whales. They often go into populated areas in search of food.

Look at the arctic animals. Have students look at the photos. Point out the animals' fur, paws and fins. Ask which animals live on land and which ones primarily in water.

Can people live in the Arctic?
Discuss the question with the class. Encourage students to say how people can protect themselves from the harsh weather conditions of the Arctic.

Remember
Have students read the sentences and copy them in their notebooks. Then read out the following statements and have students say whether they are true or false: It's cold in the Arctic. There are lots of plants. Arctic animals can live in very cold climates. They can also live in very hot climates.
## Animals and Where They Live

Complete the chart. Write the names of the animals under the places where they live.

<table>
<thead>
<tr>
<th>Animal</th>
<th>Where Animals Live</th>
</tr>
</thead>
<tbody>
<tr>
<td>polar bear</td>
<td>Arctic</td>
</tr>
<tr>
<td>toucan</td>
<td>Rain Forest</td>
</tr>
<tr>
<td>desert fox</td>
<td>Desert</td>
</tr>
<tr>
<td>seal</td>
<td>Arctic</td>
</tr>
<tr>
<td>walrus</td>
<td>Rain Forest</td>
</tr>
<tr>
<td>camel</td>
<td>Desert</td>
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<tr>
<td>jaguar</td>
<td>Arctic</td>
</tr>
<tr>
<td>tapir</td>
<td>Rain Forest</td>
</tr>
<tr>
<td>arctic fox</td>
<td>Desert</td>
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<tr>
<td>gorilla</td>
<td>Arctic</td>
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<thead>
<tr>
<th></th>
<th>Arctic</th>
<th>Rain Forest</th>
<th>Desert</th>
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Desert Life

Concepts
The desert as a natural habitat and the animals and plants that live there.

Vocabulary
Cactus, camel, climate, desert, desert fox, oasis, ocean, palm tree, penguin, pine tree, sand.

This lesson may be used to review the following language:
Can/cannot
Can plants live in an oasis?
The penguin cannot live in the desert.

3-D Desert
Materials: Sand, white glue, paper, blue paint, cardboard, modeling clay, scissors, cloth.

Explain that the desert is an ecosystem and that the animals and plants living there have to overcome its harsh environment to survive.

Divide the class into groups. Have each group make a model of a desert oasis, using sand mixed with white glue to make dunes, cardboard and modeling clay to make camels and palm trees, and paper painted blue to make a pond.

Discuss the people of the desert. Explain that very few people live in the desert and that those that do have adapted to the extreme conditions: intense heat during the day and freezing temperatures at night. They wear loose clothing because it creates air pockets, which insulate them from the heat. Nomads and other desert people often live in large airy tents. They travel on camels.

Discuss the plants of the desert. Explain that desert plants are very scarce and that most cacti are found only in the deserts of North and South America, not in African deserts. The date palm is used to make houses, fabric, ropes, baskets, furniture and several food products.

Look at this photograph of the desert.

- Look at the plants and animals. Which ones do not live in the desert? Circle and complete.

- Look at this photograph of the desert.

Elicit information about the desert and write it on the board (e.g., hot days, camels, very little rain, cactus, snakes, sand). Emphasize the most notable characteristics of the desert: the heat and the lack of water.

Ask students to examine the photo and to name everything they can see. Explain that the photo shows an oasis—a place in the desert where there is water. An oasis has trees and plants, and it is a meeting place for many animals. People often build villages around oases.

- Look at the plants and animals.

Have students circle the plant and the animal that do not live in the desert. Then have them complete the sentence. Point out that desert plants are very scarce and that most cacti are found only in the deserts of North and South America, not in African deserts. The date palm is used to make houses, fabric, ropes, baskets, furniture and several food products.

- Look at this photograph of the desert.

Remember:
- It is very hot in the desert.
- Some plants and the cactus and the pine tree are with little water.
- All animals and plants need water.

Can plants live in an oasis?
The penguin cannot live in the desert because it is very hot and dry.
Where can you find water in the desert? Draw the path.

Color the oasis.

Where can you find water in the desert? Have students look at the photos and decide where you would find water in a desert. Then have them complete the activity.

Color the oasis. Have students draw a camel drinking water and then color the picture.

Can plants live in an oasis? Discuss the question with the class and encourage students to give reasons for their answers: Plants can live in an oasis because there is water.

Remember
- It is very hot in the desert. There is very little rain.
- Some plants and animals can live in the desert, for example, the cactus and the desert fox.
- These plants and animals can live in very hot climates with little water.
- All animals and plants need water to live.

Cooking: Date Cookies
Materials: For each group: 1 cup dates, 1 cup nuts, 18 large marshmallows, ½ cup evaporated milk, 1 teaspoon vanilla, 2 cups cookie crumbs; mixing bowl, large spoon, sharp knife.

Preparation: Chop the dates, nuts and marshmallows for each group. Ask students if they have ever eaten a date. Comment that dates are the fruit of the palm tree, a favorite food of desert people because they are tasty and nutritious, and they keep well. Explain that since there are few plants in the desert, the date is an important fruit for the people that live there.

Divide the class into groups and distribute materials. Have them add vanilla to the milk and combine all the ingredients except the crumbs. Then have students roll the dough into small balls and then roll each ball in the crumbs.
Animal and Plant Habitats

Animals and Plants

- arctic fox
- dolphin
- llama
- rubber tree
- boa
- eagle
- moose
- spider monkey
- buffalo
- fir
- ombu
- toucan

North America

South America
- Look at the map. Write the numbers for the animals and plants.

- Look at the photographs. Draw another animal that lives in:
  - the desert.
  - the savanna.
  - the Arctic.

- coyote  1  walrus
- jaguar  1  polar bear
• The area near the north pole is called the Arctic. Look at this photograph.

- **Mark the true sentences. In the Arctic ...**
  - □ the ground is usually **covered** with ice and snow.
  - □ there are a lot of **houses**.
  - □ it is very **cold**.
  - □ you can see a lot of **animals** and **plants**.

- **What can you see in the Arctic? Mark and color.**
Read and circle. What does the polar bear eat?

The polar bear lives in the Arctic. It is big and it has a lot of fur. It can live in very cold places.

Look at the arctic animals. Read and complete.

The walrus lives in water and on land.
The arctic fox lives on land.
The polar bear fur protects it from the cold.

Can people live in the Arctic?

Remember

- It is very cold in the Arctic. The ground is almost always covered with snow and ice.
- There are few plants in the Arctic. There are animals like polar bears and seals.
- These animals can live in very cold temperatures.
Look at this photograph of the desert.

Circle the correct answers.

What animals can you see?  
- Horses.  
- Camels.  
- Trees.  
- Vegetables.  

What plants can you see?  
- Very hot.  
- Very cold.  
- Grass.  
- Sand.  

What is the weather like?  
- Very hot.  
- Very cold.  

What covers the ground?  
- Grass.  
- Sand.  

Look at the plants and animals. Which ones do not live in the desert?  
Circle and complete.

The _______ and the _______ cannot live in the desert because it is very hot and dry.
Where can you find water in the desert? Draw the path.

- sand
- ice
- ocean
- oasis

Color the oasis.

Can plants live in an oasis?

Remember

- It is very hot in the desert. There is very little rain.
- Some plants and animals can live in the desert, for example, the cactus and the desert fox.
- These plants and animals can live in very hot climates with little water.
- All animals and plants need water to live.
Checklists
TAT Checklist of Sheltered Strategies

I. Contextualize Lesson
   1. Visuals (Realia, Manipulatives, Gestures)
   2. Model (Instructions, Processes)
   3. Activate Background Knowledge

II. Make Text Comprehensible
   1. Graphic Organizers
   2. Develop Vocabulary
   3. Simplify Written Text

III. Make Talk Comprehensible
   1. Graphic Organizers, Listening Guides
   2. Frame Main Ideas
   3. Pace Teacher’s Speech

IV. Engage: Opportunities for Output
   1. Teacher Questioning and Response Strategies; Instructional Conversations
   2. Small Group Work (including Information Gap Activities)
   3. Meaningful, real-life activities; Students as Researchers

V. Engage at Appropriate Language Proficiency Levels
   1. Use questions appropriate for language levels
   2. Assign appropriate tasks for varying levels

VI. Literacy/Academic Development
   1. Allow use of L1 for planning and conceptualizing
   2. Lots of real oral and written language
FLA 518: TAT Sheltered ELL Strategies Checklist

Write the PAGE NUMBERS and any other identifying features to identify those parts of your lessons that employ the following strategies.

<table>
<thead>
<tr>
<th>I. Contextualize Lesson</th>
<th>Lesson 1</th>
<th>Lesson 2</th>
<th>Lesson 3</th>
<th>Lesson 4</th>
<th>Lesson 5</th>
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<td>IV.3. Meaningful, real-life activities; Students as researchers</td>
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<td>VI. Literacy/Academic Development</td>
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<td>VI. 2. Lots of real oral and written language</td>
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Original Lessons
ORIGINAL LESSONS
TEACHER’S GUIDE
Unit 7

Animal and Plant Habitats

Unit Breakdown

This unit focuses on a variety of ecosystems, each inhabited by specific animals and plants. It presents simple ecology concepts, such as the relationship between a living thing and its habitat.

The unit examines three contrasting habitats: the Arctic, the desert and the rain forest. Each has well defined and easily identifiable characteristics.

Throughout the unit, comparisons are made between the environmental conditions of these habitats and the animals and plants living in them.

Scientific Basis

A basic area of ecology deals with the environmental needs of living things. This area of ecology, a part of autoecology, studies each animal and plant and its direct interaction with the environment. This unit also introduces the study of classic ecology. It presents several ecosystems that are probably unlike those in which students live, but that will be familiar from books or television.

Introductory Pages

Write the headings Animals and Plants on the board. Elicit the names of animals and plants and write them under the corresponding headings.

Divide the class into teams. State facts about one of the animals or plants listed: It's black and white. It's a bird. It lives at the south pole. (A penguin.)

The first student to identify the animal or plant wins a point for his or her team. Repeat several times.

Have students look at each ecosystem. Ask What type of habitat is it? What do you think the weather is like? What animal can you see? What other animals do you think live in the same habitat?

Look at the map.

Have students look at the map. Tell them it has photos of different animals and plants that live in the Americas.

Name the animals and plants and ask students to find them on the map.

Then have students write the corresponding numbers next to the names.
Discuss the idea that everywhere on earth there are specific plants and animals, and that we should try to preserve this valuable biodiversity. Explain that habitats must be respected, and hunting should be strictly regulated.

- **Look at the photographs.**
  Tell students that the photos represent three different habitats: the savanna, the desert and the Arctic. Elicit other animals that live in each habitat.
  Have students complete the activity. Invite them to share their pictures with their classmates.
Lesson 1

The Arctic

Concept
The Arctic as a natural habitat and the animals and plants that live there.

Vocabulary
Arctic, arctic fox, ice, north pole, polar bear, snow, temperature, walrus.

ESL Expressing Concepts
This lesson may be used to review the following language:
Quantifiers
You can see a lot of animals.
There are few plants in the Arctic.

Focus on Science

Arctic Facts
Materials: Globe.
Show students the globe and point to the north pole. Explain that the area near the north pole is called the Arctic. Write these headings on the board: What you know, What you don't know. Brainstorm ideas from the class and write them under the headings.
Stress the topic of survival in very cold environments, and talk about the type of clothing people wear and what the houses have to be like. Ask how the animals in the Arctic, such as polar bears and seals, have adapted to the cold. Comment that humans are the only animals that have adapted to living in very cold and very hot places.

- The area near the north pole is called the Arctic. Look at this photograph.
- Mark the true sentences. In the Arctic ...
  - the ground is usually covered with ice and snow.
  - there are a lot of houses.
  - it is very cold.
  - you can see a lot of animals and plants.

- What can you see in the Arctic? Mark and color.

- What can you see in the Arctic?
  Have students name everything they can see in the pictures. Write a list on the board (e.g., man, woman, dogs, coats, igloo, rope, mittens, boots, trees, grass, flowers, children, bush). Ask students why the people are not wearing the same kinds of clothes and why there are no trees in the first picture. Then have them complete the activity.

- The area near the north pole is called the Arctic. Look at this photograph.
- Mark the true sentences. In the Arctic...
  - the ground is usually covered with ice and snow.
  - there are a lot of houses.
  - it is very cold.
  - you can see a lot of animals and plants.

- What can you see in the Arctic? Mark and color.

- What can you see in the Arctic?
  Have students observe the photo and ask these questions: What's the landscape like? Do you think it's cold? What covers the ground? Are there any animals? Are there any plants?

- Mark the true sentences.
  Read out the sentences and have students mark the true sentences, according to the photo.
  Read out the following statements and have students stand up if they refer to the Arctic and remain seated if they do not: Snow covers the ground. It's very hot. There are tall trees. It's very cold. You can see polar bears there.

- What can you see in the Arctic?
  Have students name everything they can see in the pictures. Write a list on the board (e.g., man, woman, dogs, coats, igloo, rope, mittens, boots, trees, grass, flowers, children, bush). Ask students why the people are not wearing the same kinds of clothes and why there are no trees in the first picture. Then have them complete the activity.
• Read and circle. What does the polar bear eat?

The polar bear lives in the Arctic. It is big and it has a lot of fur. It can live in very cold places.

• Look at the arctic animals. Read and complete.

Arctic Animals
Materials: Paper (2 sheets per student), scissors, glue.
Write these sentences on the board:
I am a ______. I have ______ and ______. I can ______, but I can’t ______. Lead students in completing the sentences about a polar bear.
Ask students to copy the sentences on one half of a sheet of paper and to complete them about an arctic animal. Then ask them to draw the animal on the other half.
Have students cut a piece of paper large enough to cover their drawing and write What am I? on it. Then have them glue the paper over their picture to make a flap. Ask students to exchange their papers. Have them read the sentences, guess the animal and then lift the flap to check.

Arctic Animals
Materials: Paper (2 sheets per student), scissors, glue.
Write these sentences on the board:
I am a ______. I have ______ and ______. I can ______, but I can’t ______. Lead students in completing the sentences about a polar bear.
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Have students cut a piece of paper large enough to cover their drawing and write What am I? on it. Then have them glue the paper over their picture to make a flap. Ask students to exchange their papers. Have them read the sentences, guess the animal and then lift the flap to check.

Can people live in the Arctic?
Discuss the question with the class. Encourage students to say how people can protect themselves from the harsh weather conditions of the Arctic.

Remember
Have students read the sentences and copy them in their notebooks. Then read out the following statements and have students say whether they are true or false: It's cold in the Arctic. There are lots of plants. Arctic animals can

Cross-Curricular Connection

Art: Eskimos
Materials: White construction paper (1 sheet per student), paper, scissors.
Elicit information about Eskimos (e.g., they live in igloos, they ride sleds, they wear fur coats, they hunt seals and fish).
Ask each student to draw and cut out an igloo using construction paper. Then have them glue the small squares of paper to use as ice blocks, and glue them onto the igloo.

Animals and Where They Live
Preparation: Photocopy page 118 (1 per student).
Answer Key: Arctic: polar bear, arctic fox, seal, walrus. Rain forest: toucan, jaguar, tapir, gorilla. Desert: camel, desert fox.
Desert Life

Concepts
The desert as a natural habitat and the animals and plants that live there.

Vocabulary
Cactus, camel, climate, desert, desert fox, oasis, ocean, palm tree, penguin, pine tree, sand.

ESL Expressing Concepts
This lesson may be used to review the following language:
Can/cannot
Can plants live in an oasis?
The penguin cannot live in the desert.

Focus on Science

3-D Desert
Materials: Sand, white glue, paper, blue paint, cardboard, modeling clay, scissors, cloth.

Explain that the desert is an ecosystem and that the animals and plants living there have to overcome its harsh environment to survive.

Divide the class into groups. Have each group make a model of a desert oasis, using sand mixed with white glue to make dunes, cardboard and modeling clay to make camels and palm trees, and paper painted blue to make a pond.

Discuss the people of the desert.
Explain that very few people live in the desert and that those that do have adapted to the extreme conditions: intense heat during the day and freezing temperatures at night. They wear loose clothing because it creates air pockets, which insulate them from the heat. Nomads and other desert people often live in large airy tents. They travel on camels.

Have students use the cloth and clay to add some people to their models.

- Look at this photograph of the desert.

Elicit information about the desert and write it on the board (e.g., hot days, camels, very little rain, cactus, snakes, sand). Emphasize the most notable characteristics of the desert: the heat and the lack of water.

Ask students to examine the photo and to name everything they can see. Explain that the photo shows an oasis—a place in the desert where there is water. An oasis has trees and plants, and it is a meeting place for many animals. People often build villages around oases.

- Circle the correct answers.

Read out the questions and have students complete the activity in pairs.

- Look at the plants and animals. Which ones do not live in the desert?

Circle and complete.

The ______ penguin and the ______ pine tree

cannot live in the desert because it is very hot and dry.

- Look at this photograph of the desert.

Elicit information about the desert and write it on the board (e.g., hot days, camels, very little rain, cactus, snakes, sand). Emphasize the most notable characteristics of the desert: the heat and the lack of water.

Ask students to examine the photo and to name everything they can see. Explain that the photo shows an oasis—a place in the desert where there is water. An oasis has trees and plants, and it is a meeting place for many animals. People often build villages around oases.

- Circle the correct answers.

Read out the questions and have students complete the activity in pairs.

- Look at the plants and animals.

Have students circle the plant and the animal that do not live in the desert. Then have them complete the sentence. Point out that desert plants are very scarce and that most cacti are found only in the deserts of North and South America, not in African deserts. The date palm is used to make
- Where can you find water in the desert? Draw the path.

- Color the oasis.

Can plants live in an oasis?

Remember
- It is very hot in the desert. There is very little rain.
- Some plants and animals can live in the desert, for example, the cactus and the desert fox.
- These plants and animals can live in very hot climates with little water.
- All animals and plants need water to live.

- Where can you find water in the desert?
Have students look at the photos and decide where you would find water in a desert. Then have them complete the activity.

- Color the oasis.
Have students draw a camel drinking water and then color the picture.

Can plants live in an oasis?
Discuss the question with the class and encourage students to give reasons for their answers: Plants can live in an oasis because there is water.

Remember
Have students read the sentences and copy them in their notebooks. Then ask these questions: Is it hot in the desert? Are there plants and animals? What do they need to live? Can all plants and animals live in the desert? Why not?

Language Skills: Speaking

Game: Secret Animal
Materials: Slips of paper (1 per student).
Remind students that there are animals that have adapted to life in the desert. Elicit the names of desert animals and write them on the board (e.g., snake, roadrunner, camel, tarantula, coyote, vulture, desert rat, desert fox, gray wolf, bat).
Distribute slips and tell students to write the name of a desert animal. Then have students describe their animals and have their classmates guess what they are.
A: It doesn't have any legs. It crawls in the sand.
B: It's a snake!

Cooking: Date Cookies
Materials: For each group: 1 cup dates, 1 cup nuts, 18 large marshmallows, \( \frac{1}{2} \) cup evaporated milk, 1 teaspoon vanilla, 2 cups cookie crumbs; mixing bowl, large spoon, sharp knife.
Preparation: Chop the dates, nuts and marshmallows for each group.
Ask students if they have ever eaten a date. Comment that dates are the fruit of the palm tree, a favorite food of desert people because they are tasty and nutritious, and they keep well. Explain that since there are few plants in the desert, the date is an important fruit for the people that live there.
Divide the class into groups and distribute materials. Have them add vanilla to the milk and combine all the ingredients except the crumbs. Then have students roll the dough into small balls and then roll each ball in the crumbs.
Animal and Plant Habitats

Animals and Plants

1. Arctic fox
2. Dolphin
3. Llama
4. Rubber tree
5. Moose
6. Fir
7. Eagle
8. Boa
9. Spider monkey
10. Buffalo
11. Toucan

Original lessons
- Look at the map. Write the numbers for the animals and plants.

- Look at the photographs. Draw another animal that lives in:
  - the desert.
  - the savanna.
  - the Arctic.

- coyote
- jaguar
- walrus
- polar bear
The area near the north pole is called the Arctic. Look at this photograph.

Mark the true sentences. In the Arctic ...

☐ the ground is usually covered with ice and snow.
☐ there are a lot of houses.
☐ it is very cold.
☐ you can see a lot of animals and plants.

What can you see in the Arctic? Mark and color.
Read and circle. What does the polar bear eat?

The polar bear lives in the Arctic. It is big and it has a lot of fur. It can live in very cold places.

Look at the arctic animals. Read and complete.

- arctic fox
- walrus
- polar bear

The walrus lives in water and on land.
The arctic fox lives on land.
The polar bear's fur protects it from the cold.

Can people live in the Arctic?

Remember

- It is very cold in the Arctic. The ground is almost always covered with snow and ice.
- There are few plants in the Arctic. There are animals like polar bears and seals.
- These animals can live in very cold temperatures.
Complete the chart. Write the names of the animals under the places where they live.

<table>
<thead>
<tr>
<th>Animal</th>
<th>Where Animals Live</th>
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<tr>
<td>polar bear</td>
<td>Arctic</td>
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<tr>
<td>toucan</td>
<td>Rain Forest</td>
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<tr>
<td>desert fox</td>
<td>Desert</td>
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<tr>
<td>seal</td>
<td>Arctic</td>
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<tr>
<td>walrus</td>
<td>Rain Forest</td>
</tr>
<tr>
<td>camel</td>
<td>Desert</td>
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<tr>
<td>tapir</td>
<td>Arctic</td>
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<tr>
<td>jaguar</td>
<td>Rain Forest</td>
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<tr>
<td>gorilla</td>
<td>Desert</td>
</tr>
</tbody>
</table>

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**Animals and Where They Live**

Complete the chart. Write the names of the animals under the places where they live.

- polar bear
- toucan
- desert fox
- seal
- walrus
- camel
- tapir
- jaguar
- gorilla
Look at this photograph of the desert.

Circle the correct answers.

What animals can you see?  
- Horses.  
- Camels.

What plants can you see?  
- Trees.  
- Vegetables.

What is the weather like?  
- Very hot.  
- Very cold.

What covers the ground?  
- Grass.  
- Sand.

Look at the plants and animals. Which ones do not live in the desert?  
Circle and complete.

The and the cannot live in the desert because it is very hot and dry.
Where can you find water in the desert? Draw the path.

- Sand

- Ice

- Ocean

- Oasis

Color the oasis.

Can plants live in an oasis?

Remember

- It is very hot in the desert. There is very little rain.
- Some plants and animals can live in the desert, for example, the cactus and the desert fox.
- These plants and animals can live in very hot climates with little water.
- All animals and plants need water to live.
Appendix
PICTURE CARDS
Arctic

NORTH POLE

Polar Bear
Antarctic
What you know

What you don't know
How the animals in the arctic can live there