

Habitats of the World

Grade Level: First Grade

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Length of Unit: 18 lessons

I. ABSTRACT

This unit is designed to introduce the concept of habitats to first grade students. The students will be able to recognize habitats as an environment that is specifically suited for certain living things. The habitats unit will cover the five habitats listed in the *Core Knowledge Sequence* for first grade as well as food chains and habitat destruction. This unit consists of eighteen lessons that cover climate, geography, location, plants, and animals of each habitat. In addition, students will be introduced to habitat destruction and will be asked to create ways to help the habitats of the world. This unit covers each habitat in depth and provides a strong base for future learning in this area.

II. OVERVIEW

A. Concept Objectives

1. Students will gain an awareness of the characteristics and structure of living things and how living things interact with their environment.
2. Students will be familiar with interrelationships between the environment and human activity.
3. Students will develop an understanding of the habitats of the world and the life systems they support.

B. Content from the *Core Knowledge Sequence*

1. Living things live in environments to which they are particularly suited. (page 37)
2. Specific Habitats and what lives there, for example: (page 37)
 - a. Forest (oak trees, squirrels, raccoons, snails, mice)
 - b. Meadow and prairie (wildflowers, grasses, prairie dogs)
 - c. Underground (fungi, moles, worms)
 - d. Desert (cactus, lizard, scorpion)
 - e. Water (fish, oysters, starfish)
3. The food chain: a way of picturing the relationship between living things. (page 37)
 - a. Animals: big animals eat little ones, big animals die and are eaten by little ones.
 - b. Plants: nutrients, water, soil, air, sunlight
4. Environments are constantly changing, and this can sometimes pose a dangers to specific habitats, for example: (page 37)
 - a. Effects of population and development
 - b. Rainforest clearing, pollution, litter

C. Skill Objectives

1. The student will be able to create a representation of their home and describe why it is best suited for them.
2. The student will be able to complete a drawing of an animal habitat.
3. The student will be able to complete the student logbook pages.

4. The student will be able to complete the worksheets throughout the unit.
5. The student will be able to complete the student logbook pages.
6. The student will be able to participate in a class activity on water evaporation.
7. The student will be able to record the information observed in the sponge activity
8. The student will be able to work cooperatively in groups.
9. The student will be able to identify characteristics of the five habitats.
10. The student will be able to draw forest animals in the correct forest layer in a picture representation.
11. The student will be able to describe the characteristics of forest animals and why they are best suited to live in the forest habitat.
12. The student will be able to correctly place the layers of the rainforest in order on a piece of construction paper.
13. The student will be able to list some information about rainforests in their student logbooks.
14. The student will be able to complete a report and draw a picture of a rainforest animal.
15. The student will be able to discuss types of rainforest plants and their characteristics.
16. The student will be able to discuss the forest habitat in a class review session.
17. The student will be able to fill in a world map locating the five habitats.
18. The student will be able to draw a representation of a forest.
19. The student will be able to complete an animal riddle for a meadow animal.
20. The student will be able to complete the surface skin water activity within cooperative groups.
21. The student will be able to observe a class experiment with fresh and salt water.
22. The student will be able to draw a picture of an underground animal in its home.
23. The student will be able to create a poster within a cooperative group that displays an understanding of the forest destruction and ways to stop it.
24. The student will be able to participate in a class game, which demonstrates what happens as habitats are destroyed.
25. The student will be able to create an example of a food chain.

III. BACKGROUND KNOWLEDGE

- A. For Teachers
 1. Hirsch, E.D. *What Your First Grader Needs to Know-Revised Edition*. New York: Double Day, 1997 ISBN 0-385-48119-5
 2. Evan Moor *Science Works For Kids Series: Habitats*
- B. For Students
 - None

IV. RESOURCES

- A. *The Magic School Bus Hops Home: A Book on Animal Habitats*
- B. *Deserts* by Anna O'Mara
- C. *Ancient Forests* by Alexandra Siy
- D. *Tree Trunk Traffic* by Bianca Lavies
- E. *Rainforests* by Peter Murray
- F. *Rainforests* by Rose Pipes
- G. *Forests: A Where Are We Book*. By Chris Anventus and Carol Palmer
- H. *Prairies* by Dorothy Shaw Patent
- I. *The Magic School Bus on the Ocean Floor* by Joanna Cole
- J. *The Magic School Bus Gets Ants in Its Pants* (Video)
- K. *Farewell to Shadyglade* by Bill Peet
- L. *Where Once There Was a Wood* by Denise Fleming
- M. *Who Eats What: Food Chains and Food Webs* by Patricia Lauber

V. LESSONS

Lesson One: Homes

- A. *Daily Objectives*
 - 1. Concept Objective(s)
 - a. Students will gain an awareness of the characteristics and structure of living things and how living things interact with their environment.
 - 2. Lesson Content
 - a. The introduction of a home and its importance in our lives.
 - 3. Skill Objective(s)
 - a. The student will be able to create a representation of their home and describe why it is best suited for them.
- B. *Materials*
 - 1. One box per child (have a variety of sizes: cereal, shoe, gift box, etc.)
 - 2. Glue
 - 3. Tape
 - 4. Art materials (colored paper, paint, paint brushes, crayons, markers, etc.)
 - 5. Scissors
- C. *Key Vocabulary*
 - 1. Habitat – a place where living things get all they need, an environment that is best suited for living things
- D. *Procedures/Activities*
 - 1. Begin a general discussion with the class on homes. Why do people need homes? What kinds of buildings do we live in? Are people's homes all the same? Why might they be different? We are going to start learning about different types of homes. Today we are going to discuss why we live in a home.
 - 2. A home offers you shelter, food, air to breathe, a place to sleep, etc. These are all things that we need to survive. Our home is best suited for us. We can live there comfortably.

3. If you have a book on types of homes, this would be an opportune time to read it. Discuss the differences between apartments and houses and other types of homes mentioned.
 4. We are now going to make models of our homes. Talk about each type of housing and which box best represents it. Example: if you live in an apartment you may choose the cereal box to represent a tall building with multiple stories. Use art materials to create your home.
 5. As class is creating their homes you may walk around and ask what are things about your home that make it easy to live there? What things do you need everyday to live?
 6. Once finished, have the students write their names on a card and attach to home. If there is time, the students should complete information about their homes. This should include number of rooms, how many people live there, etc. These homes can then be displayed during a conference or open house. End the class by reminding students that we need our homes to provide all the things that make it able for us to live. Tomorrow we will be finding out another word for a home.
- E. *Assessment/Evaluation*
1. The teacher will observe students during the building of their homes.

Lesson Two: Introduction to Habitats

- A. *Daily Objectives*
1. Concept Objective(s)
 - a. Students will gain an awareness of the characteristics and structure of living things and how living things interact with their environment.
 2. Lesson Content
 - a. The introduction of the word habitat
 3. Skill Objective(s)
 - a. The student will be able to complete a drawing of an animal habitat.
 - b. The student will be able to complete the student logbook pages.
 - c. The student will be able to complete the “Find the Habitat” worksheet.
- B. *Materials*
1. Worksheet – “Find the Habitat” Appendix A
 2. Book: *The Magic School Bus Hops Home: A Book on Animal Habitats*
 3. Student Log books – Appendix B
- C. *Key Vocabulary*
1. Habitat – an environment in which a living thing is best suited to live
- D. *Procedures/Activities*
1. Begin by saying to students, “Like people, animals and plants need homes to live in as well. What types of things did we decide our homes provide for us? Shelter, water, sleeping area, place to eat, etc. These are all things we need: shelter, food, water, and air to breathe.” Explain that the place where living things get everything they need is called a habitat.

2. There are many types of habitats. Large habitats such as forests and small habitats such as a single tree. What are some habitats you already know? Have class list some examples they can think of.
 3. Read the book *Magic School Bus Hops Home* by Joanna Cole.
 4. Complete the worksheet “Find the Habitat” (Appendix A).
 5. As a class begin completing the student logbooks (Appendix B-2). The first page the students will complete will be a definition of habitats. On chart paper, write the definition for students. Have the students write the definition in their logbooks.
 6. Once the logbook is complete have the students create a picture of a habitat underneath the definition in their books.
- E. *Assessment/Evaluation*
1. The teacher will assess the students on their completion of the habitat logbooks. The pages listed above should be completed during the lesson. The students will complete their “Find the Habitat” worksheet for a total of 4 points.

Lesson Three: Desert Habitats

A. *Daily Objectives*

1. Concept Objective(s)
 - a. Students will develop an understanding of the habitats of the world and the life systems they support.
 - b. Students will gain an awareness of the characteristics and structure of living things and how living things interact with their environment.
2. Lesson Content
 - a. The desert habitat
3. Skill Objective(s)
 - a. The student will be able to complete the student logbook pages.
 - b. The student will be able to participate in a class activity on water evaporation.

B. *Materials*

1. Transparency (Appendix B-3)
2. Sponges – approximately one for each group of three students
3. Bucket of water – 2 or 3 for class
4. Sidewalk or blacktop
5. Chart paper
6. Student log books (Appendix B)

C. *Key Vocabulary*

1. Desert – a habitat which is very dry and hot and only certain plants and animals can survive, usually receives less than ten inches of rain a year
2. Evaporation - water changes into gas

D. *Procedures/Activities*

1. Begin by saying, “Today we are going to study the desert habitat. What do you know about deserts?” (Weather, temperature, rainfall, landscape, etc.) Have the class begin a new page in their student logbooks (Appendix

B-2). Begin a new chart paper page for the students to record off of as well. Entitle the new pages “Deserts.” The students should record their answers about what they know about deserts on this page. Other answers can be added later.

2. Read the book *Magic School Bus Gets All Dried Up* by Joanna Cole. This book will describe the desert habitat to students in greater depth. Once the book is finished have students add any new information they learned about deserts to their logbooks.
3. After reading the book tell the children that we are now going to go outside and see why it is so dry in the desert. Take the children outside on a SUNNY day.
4. Wet a sponge and wipe an X on the pavement. Watch as the water begins to dry. What happened to the water? It evaporated. Explain that the water changed from a liquid we can see (water) to an invisible gas called water vapor and went into the air. What helped the water evaporate so quickly? The sun. In the desert the sun is very strong and evaporates any rainfall the desert receives very quickly. Let’s experiment with evaporation.
5. Divide the students into groups of 2-3 students and give each group a sponge. Have the groups dip their sponges in water and draw pictures on the pavement. One picture should be in the sun, another in a partially shaded area, and another in a fully shaded area. Where did it evaporate the quickest? Slowest? Why did this happen?
6. Since deserts are mostly sunny they have quick evaporation. Therefore there is not much water. We will learn about how desert plants and animals have developed so that they can survive in this harsh habitat.
7. Take class back inside the classroom and on the chart paper labeled deserts have the students describe the water activity. What did we do first, second, etc? What happened to the water? Record the information on the chart along with the definition of water vapor and evaporation. Then record four facts on deserts that the class learned. Record on chart paper as they are being said.

E. *Assessment/Evaluation*

1. The teacher will observe students during the water evaporation activity and during the review session at the end of the lesson.

Lesson Four: Desert Plants and Animals

A. *Daily Objectives*

1. Concept Objective(s)
 - a. Students will gain an awareness of the characteristics and structure of living things and how living things interact with their environment.
 - b. Students will develop an understanding of the habitats of the world and the life systems they support.

2. Lesson Content
 - a. Desert plants and animals and why they are best suited for this habitat.
 3. Skill Objective(s)
 - a. The student will be able to record the information observed in the sponge activity
 - b. The student will be able to work cooperatively in groups.
- B. *Materials*
1. Book – *Deserts* by Anna O’Mara
 2. Sponges – cut into the shape of a cactus
 3. Pie pans – one per group
 4. Water and watering can
 5. Experiment observation page – Appendix C
- C. *Key Vocabulary*
1. Cactus – a special plant that absorbs water so that it can withstand the desert climate
- D. *Procedures/Activities*
1. Today we will learn about desert plants and animals. What are some things that all plants and animals need to survive? Water, food, shelter, etc. How do you think desert animals and plants stay alive?
 2. Read the plant and animal sections of the book *Deserts* by O’Mara. Review how plants and animals stay alive by adapting to the harsh environment.
 3. Now we will do an activity to show how plants can survive in the desert. Divide the class into groups and pass out one pie pan to each group and one sponge. Pass out the observation log - Appendix C. Tell the students to write a description of the sponge in the before area of the paper.
 4. Next, walk around the class and drop rain (water) on the sponges from the watering can. What happens? Have the class record their observation in the after section of the observation page and draw a picture of the sponge before and after.
 5. Relate this activity to the way cacti survive. They soak up water and absorb the rain so that they can survive with little or no rainfall for long periods of time.
- E. *Assessment/Evaluation*
1. The teacher will assess the students on their class participation and working relationships with members in their cooperative groups.

Lesson Five: Forest Habitat

- A. *Daily Objectives*
1. Concept Objective(s)
 - a. Students will gain an awareness of the characteristics and structure of living things and how living things interact with their environment.
 - b. Students will develop an understanding of the habitats of the world and the life systems they support.

2. Lesson Content
 - a. The forest habitat.
 3. Skill Objective(s)
 - a. The student will be able to identify characteristics of a forest habitat.
 - b. The student will be able to complete a worksheet on coniferous and deciduous trees.
- B. *Materials*
1. Book: *Ancient Forests* by Alexandra Siy
 2. Worksheet – Coniferous and Deciduous trees – Appendix D
 3. Transparency of forest layer – Appendix B-4
 4. Reproducible picture of forest layers
 5. Chart paper
 6. Student log books (Appendix B)
- C. *Key Vocabulary*
1. Coniferous – a type of tree which has needle-like leaves and keeps them year round
 2. Deciduous – a type of tree which loses its leaves during the autumn months
 3. Forest – an area of trees
- D. *Procedures/Activities*
1. Begin by telling students, “Today we will be studying the forest habitat. Does anyone know something about a forest habitat?” List student responses on chart paper entitled “Forests.” Explain that there is more than one type of forest. The types of forests depend on rainfall and different types of trees.
 2. Read the book *Ancient Forests* by Siy. Discuss the different layers of the forest. Use the transparency (Appendix B-4) to display the layers as you describe each.
 3. The top layer is called the canopy. Tall trees and their branches spread out to form this layer. These trees can be either deciduous or coniferous trees. We will talk more about these types of trees at the end of our lesson. The next layer is called the understory. This is made up of shorter trees. Next is the shrub layer consisting of sassafras or sumac. Next is the herb layer. This is where ferns, grasses, and wildflowers grow. Last is the floor. This is covered with mosses, leaves, and twigs.
 4. Give each student their own picture of the forest layers (Appendix B-4) to label and color. Have students think about what kinds of animals would live in the forest as they are labeling and coloring their pictures.
 5. Earlier we introduced coniferous and deciduous trees. These are two tree types that grow in the forest. The coniferous tree has needle-like leaves that keep their leaves year round and deciduous trees, which lose their leaves in the fall. Include Oak trees in this discussion. It is a deciduous tree. Now we will complete the paper on tree types. Pass out coniferous/deciduous worksheet (Appendix B).

6. Take out your student logbooks (Appendix B) and write three facts as a class that we learned about forests. Add any extra facts to the chart paper from earlier in the lesson. Tomorrow we will be talking about what animals live in the forest and why.
- E. *Assessment/Evaluation*
1. The teacher will check the worksheets for accuracy and completion for a total of 4 points. Teacher will check for understanding during class discussions.

Lesson Six: Forest Animals

A. *Daily Objectives*

1. Concept Objective(s)
 - a. Students will gain an awareness of the characteristics and structure of living things and how living things interact with their environment.
 - b. Students will develop an understanding of the habitats of the world and the life systems they support.
2. Lesson Content
 - a. The animals of the forest habitat
3. Skill Objective(s)
 - a. The student will be able to draw forest animals in the correct forest layer in a picture representation.
 - b. The student will be able to describe the characteristics of forest animals and why they are best suited to live in the forest habitat.

B. *Materials*

1. Book *Tree Trunk Traffic* by Bianca Lavies
2. Forest layer picture (Appendix B-4)

C. *Key Vocabulary*

1. Raccoon – an animal that lives in the forest habitat
2. Squirrel – an animal that lives in the forest habitat

D. *Procedures/Activities*

1. Begin lesson by saying, “Yesterday we began learning about which type of habitat? Forest. Name five things we learned about the forest yesterday.” List student answers on the board. Today we will begin studying the animals that live in the forest.
2. Yesterday when we were coloring our pictures of the forest I asked you to think about what kind of animals would live in the forest. Who can tell me what types of animals they think live in the forest habitat? List responses. (Animals could include raccoons, squirrels, birds, mice, deer, etc) Forests make good homes because their trees and bushes provide food and shelter for many animals.
3. Read *Tree Trunk Traffic* by Lavies. Two animals that we read about in this book are squirrels and raccoons. Why did this book say they live in the forest? It provides shelter. Discuss some facts about squirrels and raccoons. Squirrels – their homes are in trees usually deep in the trunk, they like nuts, seeds, fruit, mushrooms, and sometimes bird eggs and baby

mice. Raccoons – their homes are made from hollow logs or trees, they eat fish, fruit, small animals, bird’s eggs, and garbage. They use their front paws like hands to eat and dip their food into water to help them chew it easier.

4. Look at the list the students compiled of forest animals. Can any more animals be added to the list? Take out the forest layers picture (Appendix B-4). Return the student’s colored and labeled picture from the day before. In your picture you colored yesterday you are going to add in a picture of a forest animal and where they would live (Which forest layer?) You should have one animal in each layer of the forest.
5. Turn in the drawings. Tomorrow we will be talking about another type of forest, the rainforest.

E. *Assessment/Evaluation*

1. The teacher will grade the picture for content and correct placement of one animal in each forest layer.

Lesson Seven: Rainforest

A. *Daily Objectives*

1. Concept Objective(s)
 - a. Students will gain an awareness of the characteristics and structure of living things and how living things interact with their environment.
 - b. Students will develop an understanding of the habitats of the world and the life systems they support.
2. Lesson Content
 - a. The rainforest and the animals and plants it supports.
3. Skill Objective(s)
 - a. The student will be able to correctly place the layers of the rainforest in order on a piece of construction paper.
 - b. The student will be able to list some information about rainforests in their student logbooks.
 - c. The student will be able to complete a report and draw a picture of a rainforest animal.
 - d. The student will be able to discuss types of rainforest plants and their characteristics.

B. *Materials*

1. Book: *Rainforests* by Peter Murray
2. Student log books (Appendix B)
3. Worksheets (Appendices B-5 and 6)
4. Chart paper
5. Construction paper – 1 9” x 11” sheet per student
6. Glue
7. Scissors
8. Book: *Rainforests* by Rose Pipes
9. Worksheets (Appendix B-7)
10. Report page (Appendix E)

11. Paint
- C. *Key Vocabulary*
1. Rainforest – a type of forest which receives plenty of rain, warm temperature, rich plant life, and humid air
- D. *Procedures/Activities*
1. Begin by asking students, “What is a forest?” “What animals live in the forest?” (Give the students time to think and respond. “Today we are going to begin talking about a certain type of forest, the rainforest.”)
 2. Read *Rainforests* by Peter Murray. Discuss rainforests. They are different from other forests. Temperature is hot most of the time, there is plenty of rain, the air feels humid, and there is lots of plant and animal life. Record information about rainforests on a piece of chart paper entitled “Rainforests.” Have the students list facts about the rainforest as you record them on the chart paper.
 3. A rainforest has layers like other types of forests. Pass out reproducible page (Appendices B-5 and 6). Read aloud as a class. Explain that each layer can be thought of as a small habitat with certain plants and animals living there. Complete worksheets (Appendices B-5 and 6) as a class. Once completed have each student cut and paste each layer in the correct order on a piece of construction paper. After discussing characteristics of the rainforest, we are now going to discuss the plants and animals that live there. Read *Rainforests* by Rose Pipes. Ask the students to recall the plants they learned about and tell one interesting fact about each plant. Have students complete the worksheet on rainforest plants (Appendix B-7). These are all items we use that come from the rainforest. Circle the items that you have used.
 4. Have each student pick one rainforest animal to paint and do a report on. Use the report page (Appendix E) to complete the student reports. Have students paint/draw their animal and complete their rainforest animal report using books, encyclopedias, classroom ideas, Internet, etc. Once complete staple the two together and put on display.
- E. *Assessment/Evaluation*
1. The teacher will observe class during activities.
 2. The teacher will assess the students’ completion and effort of the animal reports.

Lesson Eight: Forest Location

- A. *Daily Objectives*
1. Concept Objective(s)
 - a. Students will develop an understanding of the habitats of the world and the life systems they support.
 2. Lesson Content
 - a. To review information on rainforests and discuss their location in the world.

3. Skill Objective(s)
 - a. The student will be able to discuss the forest habitat in a class review session.
 - b. The student will be able to fill in a world map locating forests.
 - c. The student will be able to draw a representation of a forest.
- B. *Materials*
 1. Student log books (Appendix B)
 2. World Map
 3. Book: *Forests: A Where Are We Book*. By Chris Anventus and Carol Palmer
 4. Crayons
 5. White paper
 6. Deciduous and Coniferous leaves
- C. *Key Vocabulary*
 1. Deciduous – type of tree which loses its leaves in the fall months
 2. Coniferous – type of tree which keeps its needle-like leaves year round
- D. *Procedures/Activities*
 1. Open to page F 1-4 in student logbooks (Appendix F). Read the information on forests together to review facts about forests. Add any additional information to the class logbook page (chart paper) or student log pages on forests (Appendix B-2). After discussing what the students have learned about forests, read the book *Forests: A Where Are We Book*. Discuss the book and how it relates to student's thoughts about forests.
 2. Pass out world maps. Locate the forest areas of the world on the maps.
 3. Pass out a sheet of white paper to students and have them draw a picture of a forest. Include layers in the drawings. While the students are completing their pictures review information on coniferous and deciduous trees. What are they? Where are they found? Paste examples of coniferous and deciduous leaves on the forest pictures students are creating. These examples can be brought in from home or taken from the schoolyard.
- E. *Assessment/Evaluation*
 1. The teacher will observe students for active participation in the review session.

Lesson Nine: Meadow Habitat

- A. *Daily Objectives*
 1. Concept Objective(s)
 - a. Students will gain an awareness of the characteristics and structure of living things and how living things interact with their environment.
 - b. Students will develop an understanding of the habitats of the world and the life systems they support.
 2. Lesson Content
 - a. The meadow habitat and what it contains

3. Skill Objective(s)
 - a. The student will be able to complete an animal riddle for a meadow animal.
- B. *Materials*
 1. Book: *Prairies* by Dorothy Shaw Patent
 2. Construction paper – one sheet per student
 3. Crayons/markers
 4. Chart paper
 5. Student log books (Appendix B)
- C. *Key Vocabulary*
 1. Meadow (prairie) – an area of grassland
- D. *Procedures/Activities*
 1. Begin by saying, “Today we will be studying the meadow habitat which is also called the prairie.” Label chart paper “Prairie.” List characteristics of a prairie as a class on the chart paper. Read *Prairies* by Patent. Add or delete any information on the chart paper about prairies.
 2. “What types of plants do you think would grow in the prairie habitat?” Describe the tall grasses and wildflowers grow in the prairie. Explain that there are few trees so it is very windy.
 3. Ask the students to describe some of the animals the book talked about. List the animals on the board and write one fact about each next to its name.
 4. Have students create riddles to go along with the animal facts. Assign one animal to each student from the list on the board. Use the following verse for each riddle: I have _____. I eat _____. I like to _____. Who am I? Place the riddle on the outside flap of a folded sheet of construction paper. Have the students open the flap and write the answer to the riddle and draw a picture of the animal.
 5. To finish have the class stand up and read their riddles to the class. Can the class guess what each animal is? Have the students take out their logbooks and record three facts about the meadow habitat.
- E. *Assessment/Evaluation*
 1. The teacher will observe students during the lesson activities. Teacher will check for completion of the animal riddles.

Lesson Ten: Prairie Habitat Location and Review

- A. *Daily Objectives*
 1. Concept Objective(s)
 - a. Students will gain an awareness of the characteristics and structure of living things and how living things interact with their environment.
 - b. Students will develop an understanding of the habitats of the world and the life systems they support.
 2. Lesson Content
 - a. The location of the prairie habitats in the world

3. Skill Objective(s)
 - a. The student will be able to locate prairie habitats on a world map.
 - b. The student will be able to take an active role in the review session on prairie habitats.
- B. *Materials*
 1. World map
 2. Log Book
- C. *Key Vocabulary*
 1. Savannah – a grassland
 2. Pampa – a grassland
- D. *Procedures/Activities*
 1. Begin by saying, “Yesterday we talked about the prairie habitat. Today we are going to talk about different types of prairies. There are also prairies called savannas and pampas.”
 2. Define savanna and pampa.
 3. Have students take out their world maps. As a class locate and identify where prairies are located.
 4. Have students take out their logbooks (Appendix B) and complete a list of five facts about the prairie. This can be done as a class or individually.
- E. *Assessment/Evaluation*
 1. The teacher will observe class participation.

Lesson Eleven: Water Habitats

- A. *Daily Objectives*
 1. Concept Objective(s)
 - a. Students will gain an awareness of the characteristics and structure of living things and how living things interact with their environment.
 - b. Students will develop an understanding of the habitats of the world and the life systems they support.
 2. Lesson Content
 - a. The water habitats and what they contain.
 3. Skill Objective(s)
 - a. The student will be able to complete their freshwater habitat page in the student logbooks.
- B. *Materials*
 1. Fish bowl – including small fish, a water snail, and small water plants
 2. Pond habitat transparency (Appendix B-8)
 3. Chart paper
 4. Student log books (Appendix B)
- C. *Key Vocabulary*
 1. Freshwater – water that does not contain salt
- D. *Procedures/Activities*
 1. Display the fishbowl to the class. Have students observe the habitat. Ask students what kinds of animals might live there? How do they survive? (Gills to breathe and fins to swim.) This is a fresh water habitat.

2. Define freshwater habitat as a water environment that has no salt in the water. The water is not salty like it is in the ocean. Display the overhead (Appendix B-8).
 3. The freshwater habitat that this overhead shows is a pond. Label a sheet of chart paper "Pond." Have the students list characteristics of a freshwater habitat. Record their answers on the chart paper.
 4. Read *The Living Pond* by Nigel Hester. Have the students add or delete any information from the chart paper.
 5. Have the students complete the page on freshwater habitats in their student logbooks (Appendix B-2).
- E. *Assessment/Evaluation*
1. The teacher will assess the student's participation in class.

Lesson Twelve: Freshwater Habitats

- A. *Daily Objectives*
1. Concept Objective(s)
 - a. Students will gain an awareness of the characteristics and structure of living things and how living things interact with their environment.
 - b. Students will develop an understanding of the habitats of the world and the life systems they support.
 2. Lesson Content
 - a. The freshwater habitat and what it contains.
 3. Skill Objective(s)
 - a. The student will be able to complete the surface skin water activity within cooperative groups.
 - b. The student will be able to complete an activity page on animal homes within a pond.
- B. *Materials*
1. Student log books - Appendix B
 2. Glasses (one per each group of four students)
 3. Water dropper
 4. Broom straw (One piece for each group of four students)
- C. *Key Vocabulary*
1. Surface film - the thin layer on the top of water
- D. *Procedures/Activities*
1. Begin the lesson with a summary of yesterday's pond lesson. What is a pond? What animals live there?
 2. Discuss the different layers of the pond: Muddy bottom – decomposers change dead plant and animal remains into nutrients for new growth. Snails move slowly along the bottom. Open water – fish dart among the underwater grasses. Frogs swim through the water. Surface film – small insects live on the surface. This is a fragile layer.
 3. Divide the class into small groups to complete the activity on surface film. Give each group a glass full of water. Teacher will come around to each

group and drop water in the glass with a dropper until each glass has a curve of water at the top.

4. Next each group should place one piece of broom straw on the surface of the film. Gently lay the straw on top (hold perpendicular to water and let go above the water.) Explain that like the broom straw, insects can stay on top of the water too. The “skin” of the water is what holds them up which is the surface film.

E. *Assessment/Evaluation*

1. The teacher will observe the students during the activity on surface film.

Lesson Thirteen: Salt Water Habitat

A. *Daily Objectives*

1. Concept Objective(s)
 - a. Students will gain an awareness of the characteristics and structure of living things and how living things interact with their environment.
 - b. Students will develop an understanding of the habitats of the world and the life systems they support.
2. Lesson Content
 - a. The salt water habitat and the life systems it supports.
3. Skill Objective(s)
 - a. The student will be able to observe a class experiment with fresh and salt water.
 - b. The student will be able to complete the logs on the project information and oceans.

B. *Materials*

1. Chart paper
2. Appendix B-9
3. Book: *The Magic School Bus on the Ocean Floor* by Joanna Cole
4. Two pans
5. Water
6. Salt

C. *Key Vocabulary*

1. Ocean – body of salt water
2. Fresh water – water that does not contain salt
3. Salt water – water that does contain salt

D. *Procedures/Activities*

1. Begin by saying to students, “We have learned about fresh water habitats that have no salt in the water. Now we will talk about the water habitat salt water. Today we will talk about oceans.”
2. Write “oceans” on chart paper and have class record what they know about this habitat. Display the overhead of the ocean habitat (Appendix B-9). Discuss what the class sees in the picture and how it relates to the information the class recorded on what they know about oceans.
3. Read *The Magic School Bus on the Ocean Floor*. After reading the book, add or delete any information about oceans from the chart paper. Next tell

the class that we are going to do an activity to see what makes fresh water and salt water different.

4. Fill two pans with water and label one pan A and another pan B. The pan A will be filled with plain water and pan B will be water with salt dissolved in it. Have students look at the two pans and observe what they see. Are there any differences? Have the students fill in the first section of the observation log.
 5. Place the pans in a sunny spot and continue the experiment once the water has evaporated. When the water has evaporated, observe the pans. Draw conclusions as to what happened. What do you see in bowl A? Bowl B? What water was salt water? How do you know? What water would have come from a pond? How do you know? What water would come from an ocean? Why? The students should observe salt left in pan B and nothing in A.
 6. Have the students complete the rest of the observation log.
 7. When done complete the habitat log page on oceans (Appendix B-2). Have the students write three things they learned about the ocean habitat.
- E. *Assessment/Evaluation*
1. The teacher will observe the students during the water activity and will check the student observation log and logbook for completion.

Lesson Fourteen: Oceans and Location of Water Habitats

A. *Daily Objectives*

1. Concept Objective(s)
 - a. Students will gain an awareness of the characteristics and structure of living things and how living things interact with their environment.
 - b. Students will develop an understanding of the habitats of the world and the life systems they support.
2. Lesson Content
 - a. The three ocean habitats: tide pools, kelp forest, and open ocean.
 - b. The location of water habitats around the world.
3. Skill Objective(s)
 - a. The student will be able to complete the three worksheets on tide pools, kelp forest, and Open Ocean.
 - b. The student will be able to locate fresh and salt-water habitats on a world map.

B. *Materials*

1. Ocean mini book (Appendices G 1-2)
2. Worksheets (Appendices G 3-5)
3. World Map

C. *Key Vocabulary*

1. Kelp forest -
2. Tide pools -
3. Open ocean -

- D. *Procedures/Activities*
1. Pass out the mini books on oceans (Appendices G 1-2). Read as a class.
 2. Review the three habitats discussed: tide pools, kelp forest, and open ocean.
 3. Write the three habitats on the board and list characteristics of each. After completing the list of characteristics of each pass out the worksheets (Appendices G 3-5) for the students to complete.
 4. Next have students take out their world map and draw in rivers and lakes and other fresh water habitats of the world. Locate the major oceans and label them on the world map.
- E. *Assessment/Evaluation*
1. The teacher will observe students during the lesson.

Lesson Fifteen: Underground Habitats

- A. *Daily Objectives*
1. Concept Objective(s)
 - a. Students will gain an awareness of the characteristics and structure of living things and how living things interact with their environment.
 - b. Students will develop an understanding of the habitats of the world and the life systems they support.
 2. Lesson Content
 - a. The underground habitat
 3. Skill Objective(s)
 - a. The student will be able to complete their logbook on underground habitats.
 - b. The student will be able to draw a picture of an underground animal in its home.
- B. *Materials*
1. *The Magic School Bus Gets Ants in Its Pants* (Video)
 2. Chart paper
 3. Log books (Appendix B)
- C. *Key Vocabulary*
1. Fungi – a spongy growth
 2. Moles – mammal that lives underground
- D. *Procedures/Activities*
1. Label chart paper “Underground.” Tell the students that today we will be learning about the underground habitat. List any information the students know on underground habitats on the chart paper.
 2. Discuss the animals that live underground. Why do they live there? Rabbits, ants, worms, moles, etc.
 3. Watch the video on ants. Discuss the reasons why ants live underground and things that make underground a habitat. What do they use for food, shelter, etc?

4. Look at pictures of underground animal homes. Discuss that a type of plant that lives underground is called fungi. Read information on fungi and show pictures if available.
 5. Connect prairie dogs from previous lesson to those of animals who live underground. They build towns underground through a tunnel system.
 6. Have the class complete the logbook on underground habitats (Appendix B-2). On the back of their page have them draw a picture of an underground animal living on its home.
- E. *Assessment/Evaluation*
1. The teacher will check the logbooks for completion.

Lesson Sixteen: Habitat Destruction

- A. *Daily Objectives*
1. Concept Objective(s)
 - a. Students will be familiar with interrelationships between the environment and human activity.
 2. Lesson Content
 - a. The destruction of the forest habitat
 3. Skill Objective(s)
 - a. The student will be able to create a poster within a cooperative group that displays an understanding of the forest destruction and ways to stop it.
- B. *Materials*
1. Poster board (one per group of three to four students)
 2. Markers
 3. Book: *Farewell to Shadyglade* by Bill Peet
 4. Chart paper
- C. *Key Vocabulary*
1. Destruction – the act of destroying
 2. Population – the total number of people living somewhere
- D. *Procedures/Activities*
1. Read *Farewell to Shadyglade* by Bill Peet. Discuss the story with the students. What happened in the story? Did the animals want to leave their home? Did they find a new home? Why did they have to leave? Have the students complete a problem section in a problem solution chart.
 2. What can we do to come up with a solution to the problems the animals had the story? List possible solutions in the solutions side of the chart.
 3. Give the students the following books to look at in groups for ideas on saving habitats: *I Can Save the Earth* by Anita Holmes, *World Wildlife Fund Take Action: An Environment Book For Kids* by Ann Love and Jane Drake, and *Why Save the Rainforest?* by Donald Silver.
 4. Tell the class to think of a way they think the forests can be saved. Have the students create a poster advertising their solution to forest destruction.
 5. Display the posters around the room.

- E. *Assessment/Evaluation*
1. The teacher will observe student's ability to work with others in cooperative groups during the poster activity.

Lesson Seventeen: Habitat Destruction: Human Caused

- A. *Daily Objectives*
1. Concept Objective(s)
 - a. Students will be familiar with interrelationships between the environment and human activity.
 2. Lesson Content
 - a. The destruction of habitats caused by humans
 3. Skill Objective(s)
 - a. The student will be able to participate in a class game, which demonstrates what happens as habitats are destroyed.
- B. *Materials*
1. Music
 2. Tape recorder
 3. Note cards
 4. Student chairs
 5. Book: *Where Once There Was a Wood* by Denise Fleming
- C. *Key Vocabulary*
1. Population - the total number of people living somewhere
 2. Pollution – things that pollute or make the environment dirty
 3. Litter – to put trash where it does not belong
- D. *Procedures/Activities*
1. Yesterday we discussed ways the forest habitat is destroyed and created posters to stop the destruction. Today we will see how humans hurt the environment and what we can do everyday to help the habitats of the world.
 2. Read *Where Once There Was a Wood* by Fleming. Discuss ways that humans harm habitats. Create a class list of these ideas.
 3. Write the ways humans affect the environment on notecards. One idea per notecard. Next have the students place their chairs back to back in one line and explain that we will now play a game that helps us understand how it would feel to lose our habitat.
 4. Explain to the students that each person is in a habitat while they are standing next to their chair. This habitat has everything they need. When the music is played the students begin to walk around the chairs like musical chairs. When the music stops, sit in the chair that you are next to. Play the music and have the students walk around the chairs. Stop the music. Do this a couple times to let the students get used the idea of how the game is played.
 5. Then add notecards to some of the chairs and play the music. Tell the students that the seats with notecards on them cannot be used because those habitats are ruined. Therefore you cannot sit in a chair with a notecard on it. Play the music and stop. Those students left standing must

find a new home. Designate a small section of the classroom as the new home for those students who are standing. As each student is left standing they must go to this new habitat. Keep adding more notecards to the chairs until there are only a few students left standing. Ask those students who are in the new habitat why they had to move? Habitat was gone? How did that make you feel? Do you like your new home? There is not as much room and not enough food for everyone. Having a small candy waiting for the students who first arrive to the new habitat and not having enough for all the new inhabitants could enhance (this.)

6. Relate what happened to them in the game to what happens with animals in habitats that people pollute, develop, or destroy. Discuss with students how they felt when they had to leave the game? What things could we do everyday to help habitats? (Clean up litter, write letters to companies who pollute, etc.)

E. *Assessment/Evaluation*

1. The teacher will assess the student's participation in the game.

Lesson Eighteen: Food Chains

A. *Daily Objectives*

1. Concept Objective(s)
 - a. Students will gain an awareness of the characteristics and structure of living things and how living things interact with their environment.
2. Lesson Content
 - a. Food chains in different habitats.
3. Skill Objective(s)
 - a. The student will be able to create an example of a food chain.

B. *Materials*

1. Book: *Who Eats What: Food Chains and Food Webs* by Patricia Lauber

C. *Key Vocabulary*

1. Food Chain - term used by scientists to describe who eats what and what gets eaten

D. *Procedures/Activities*

1. Each habitat that we have studied has had many different types of animals. All these animals combine to create food chains. Define food chains as a term used by scientists to describe who eats what and what gets eaten.
2. Read the book: *Who Eats What?* As a class come up with a couple examples of food chains on the board. Now assign the class to think of their favorite habitat and draw their own food chain for animals in that habitat.
3. Display the food chains.

E. *Assessment/Evaluation*

1. The teacher will check the student's completion and effort on the food chain.

VI. CULMINATING ACTIVITY

- A. Once the unit is complete the class can invite their parents for a show on what they have learned about habitats. Students can sing songs, dress up as animals, and tell interesting facts they have learned about habitats. Also food can be made and past out. Ants on a log, or fungus bread (yeast). A song that can be sung is attached. This can be taught in sections throughout the unit or taught as review at the end.

“Habitats” (sung to the tune of the Beverly Hill Billie’s theme song)

Listen as I tell you about habitats,
They’re not very hard when you know all the facts.
A habitat is where you can survive,
It’s best suited for you and it keeps you alive.
(A home that is...air to breathe..food to eat)

The first habitat that I will list,
Its really cool it’s called a forest.
It has several layers here’s what they are
Canopy, understory, shrub, herb and floor.

In a forest many things are found,
Mostly trees that are all around.
These types of trees have two long names,
Deciduous, Coniferous, they don’t mean the same.
(deciduous, loses all its leaves...coniferous, like an evergreen)

In the forest many animals live,
Here are some of their names I can give.
Squirrels in the trees and raccoons all around,
Snails and mice are two more that are found.

The next habitat that we studied,
Is the meadow or prairie.
The prairie is a very pretty place
With tall tall grass and a lot of open space.

In the prairie you’ll feel a strong breeze,
That’s because there aren’t many trees.
Prairie dogs and wildflowers you will find
This habitat gives them peace of mind.

Onto the desert where it’s really dry.
The water evaporates right into the sky.
But the animals and plants can adapt

And that's why this is their habitat.

One desert plant that you can see
Is the cactus –ouch prickly!
Lizards and scorpions crawling on the ground,
In the desert they all can be found.

The next habitat you don't often see,
It's underground—ooh sneaky!

VII. HANDOUTS/WORKSHEETS

- A. Appendix A: Find the Habitat
- B. Appendix B: Student Logbook
- C. Appendix C: Experiment Log
- D. Appendix D: Trees
- E. Appendix E: Animal Report
- F. Appendix G: Giant Kelp – An Ocean Forest, Tide Pool, and What Belongs in the Open Ocean?

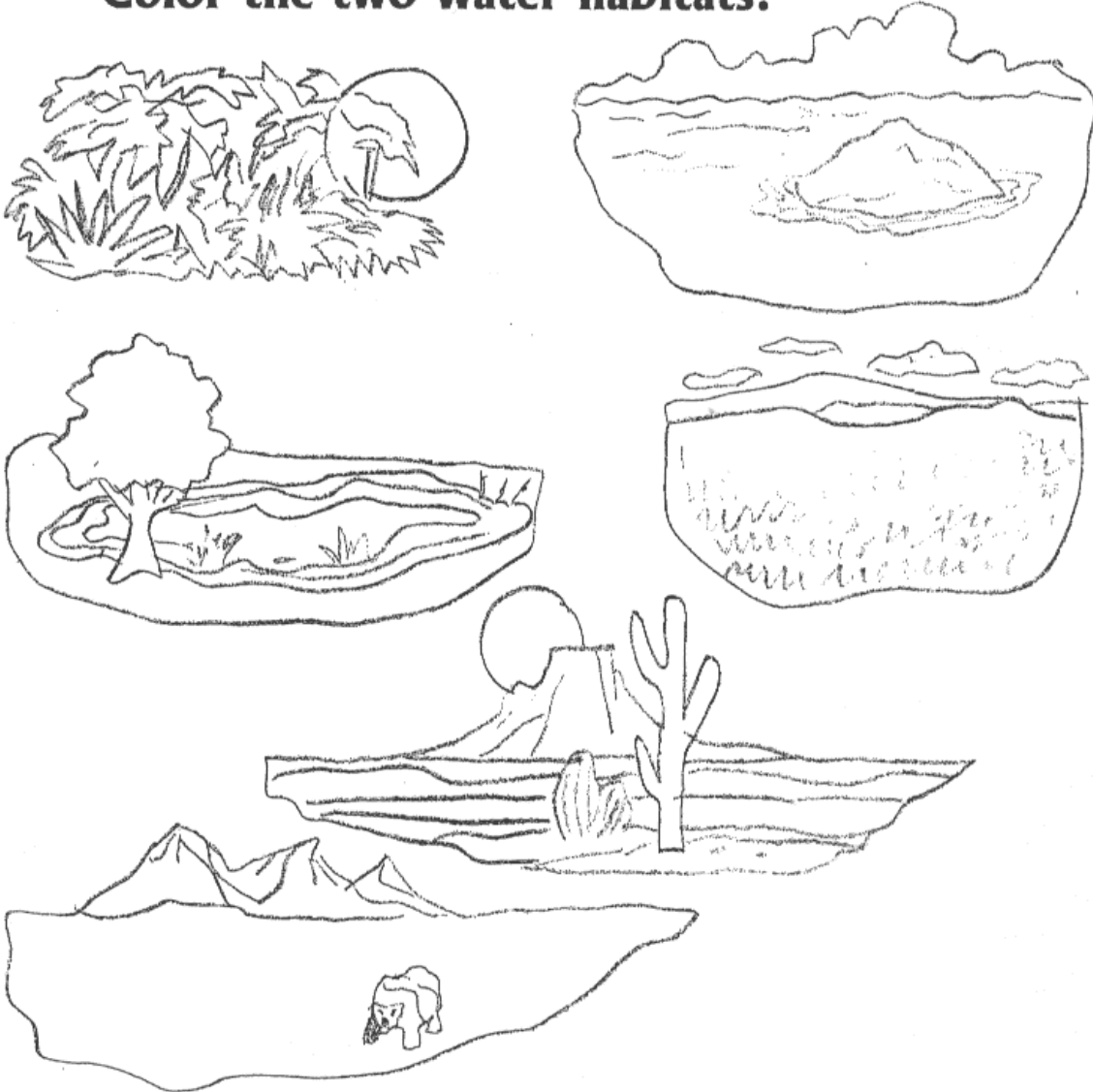
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Appendix A-Habitats of the
World

Find the Habitat

**Directions: Circle the coldest habitat.
Put a box around the driest habitat.
Color the two water habitats.**

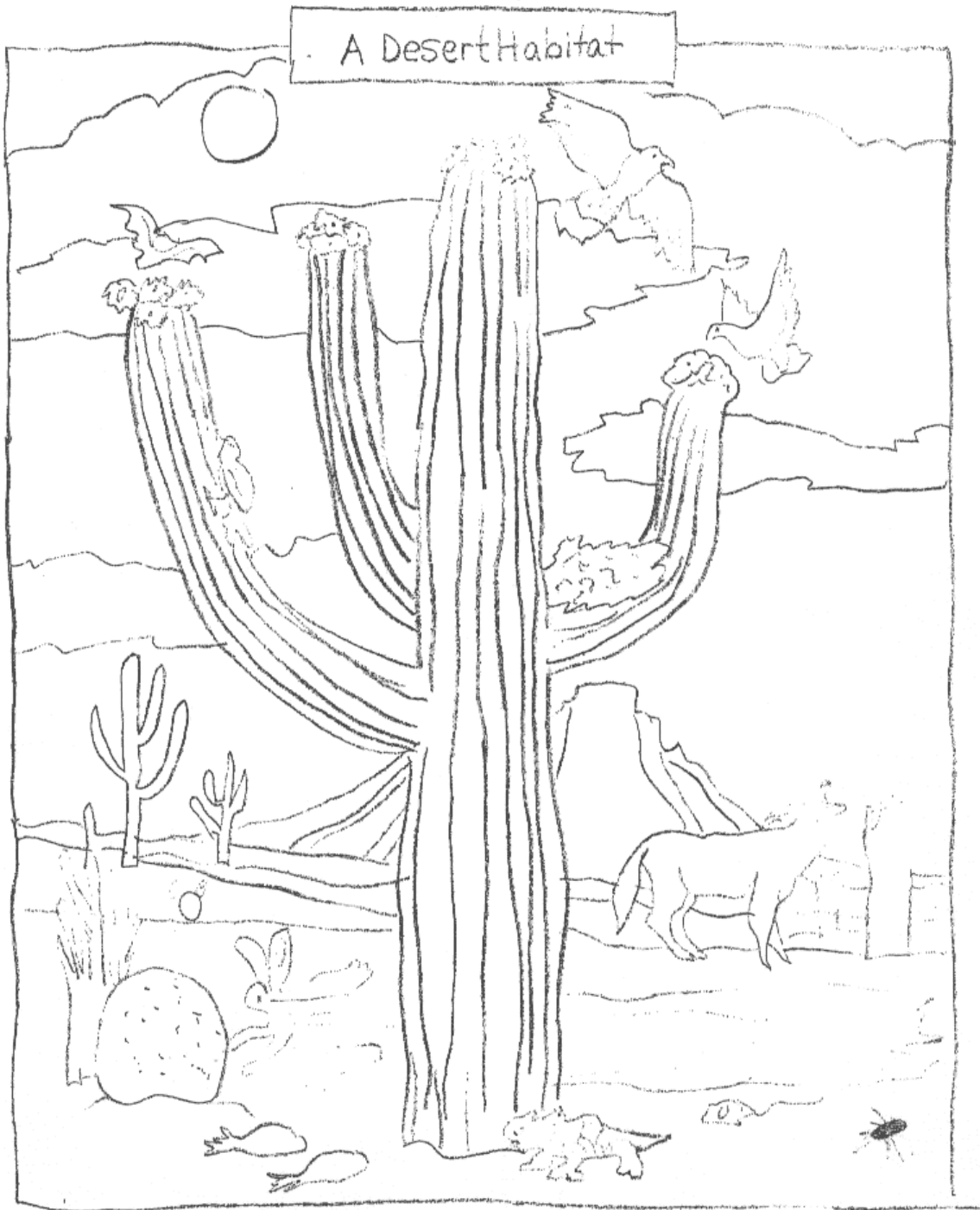


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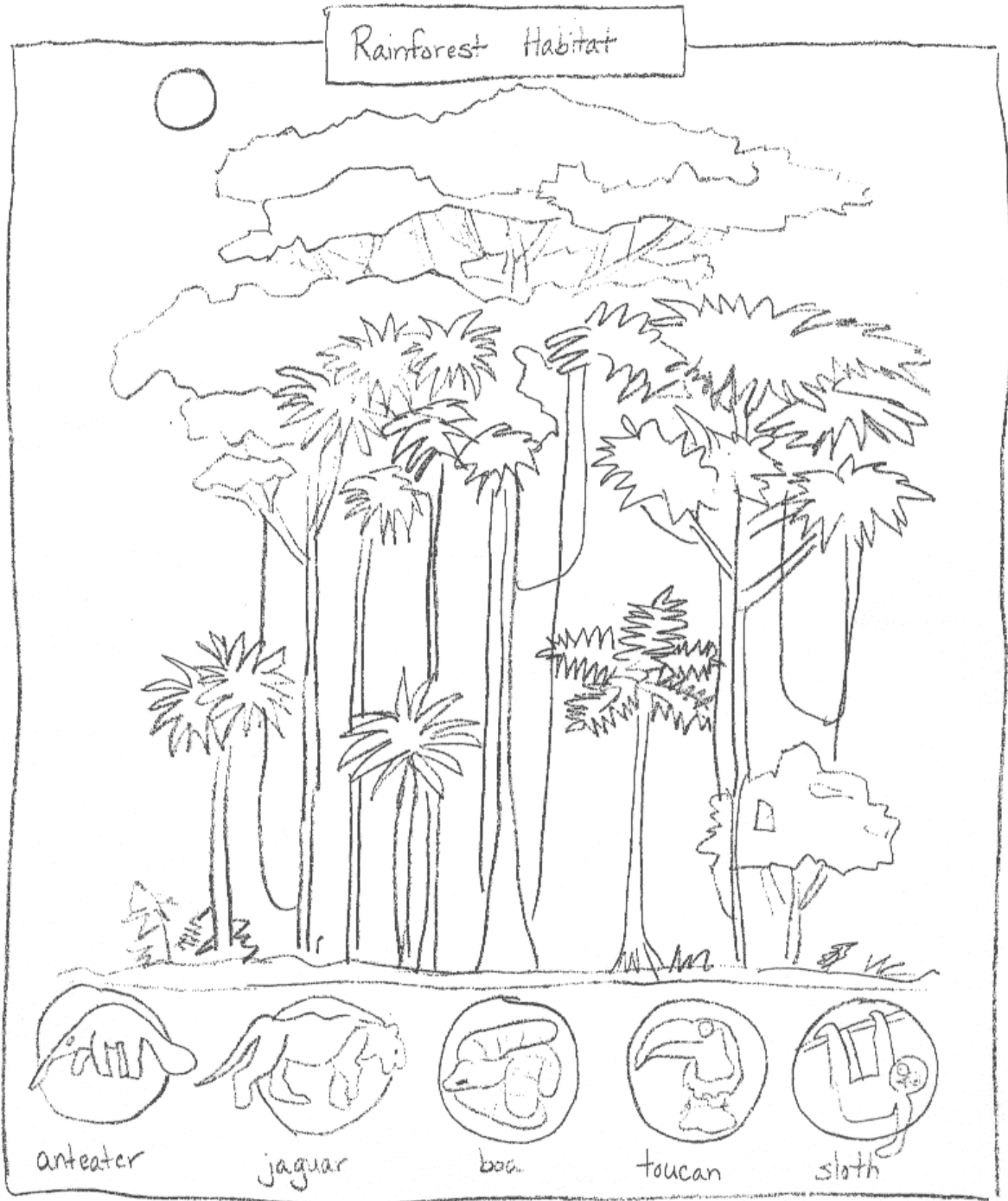
Habitats

Logbook

Appendix B, page 3-Habitats of the World

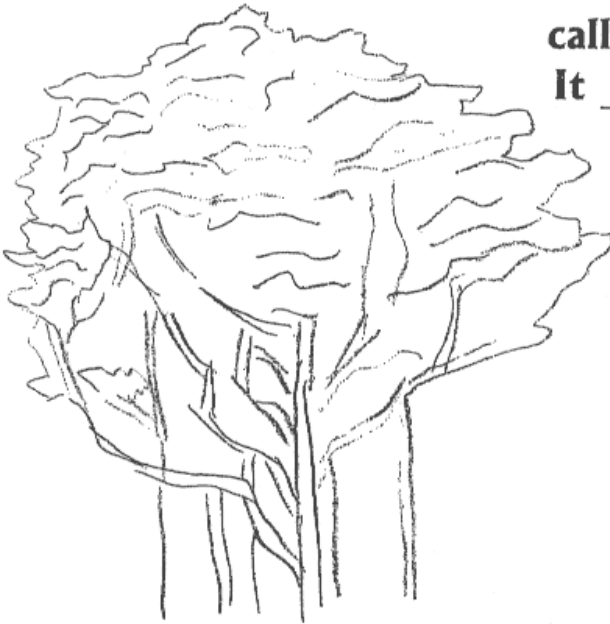


Appendix B, page 4-Habitats of the World

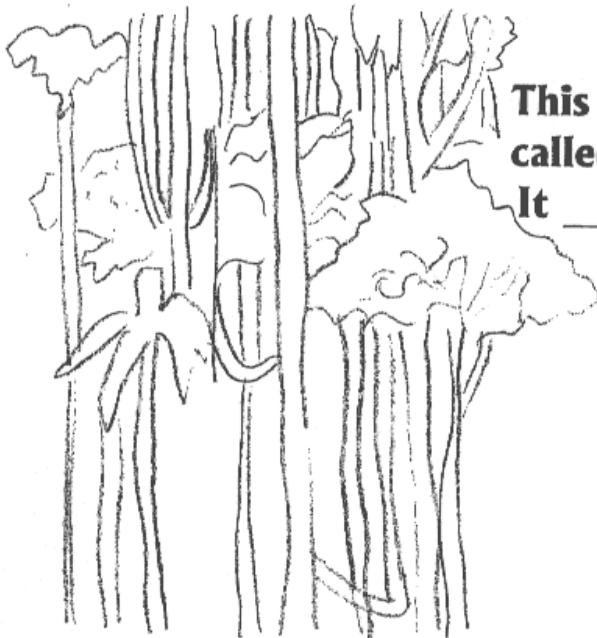


Appendix B, page 5-Habitats of the World

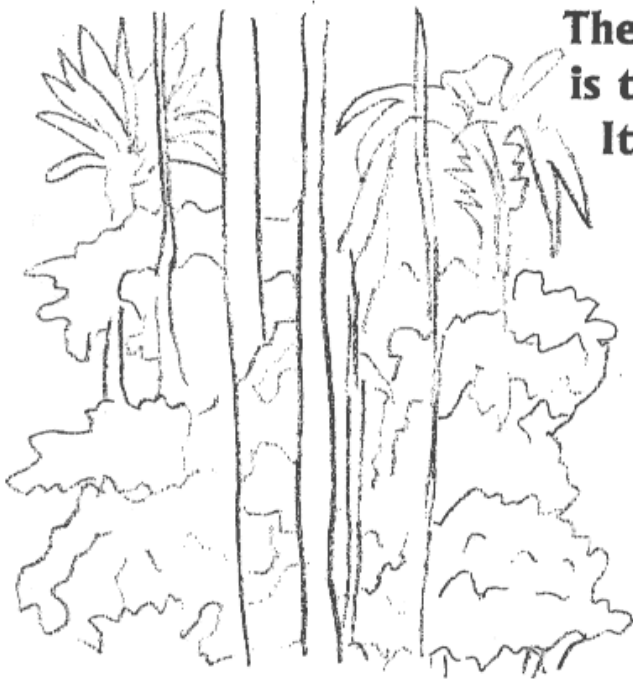
This level of the rainforest is called the _____.
It _____



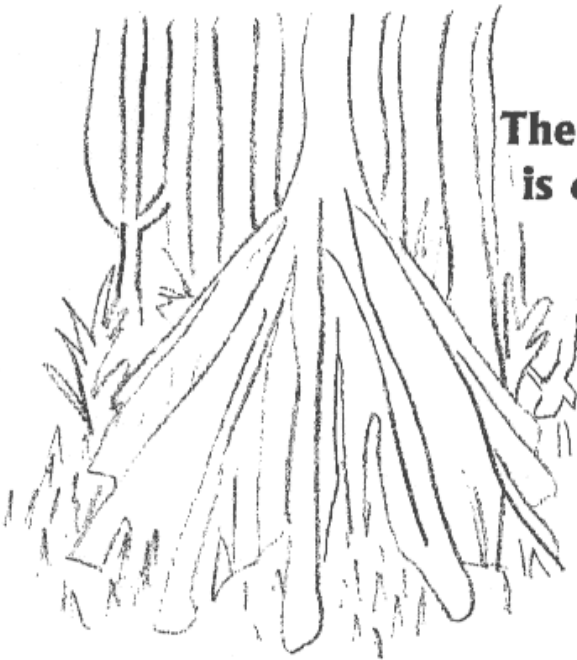
This level of the rainforest is called the _____.
It _____



Appendix B, page 6-Habitats of the World



The second layer from the top
is the _____.
It _____



The part growing on the ground
is called the _____.
It _____

Rainforest Products



Black pepper



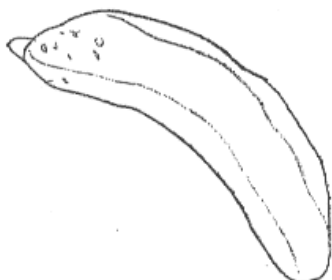
Banana



Lemon



Avocado



Cashew nuts



Bamboo

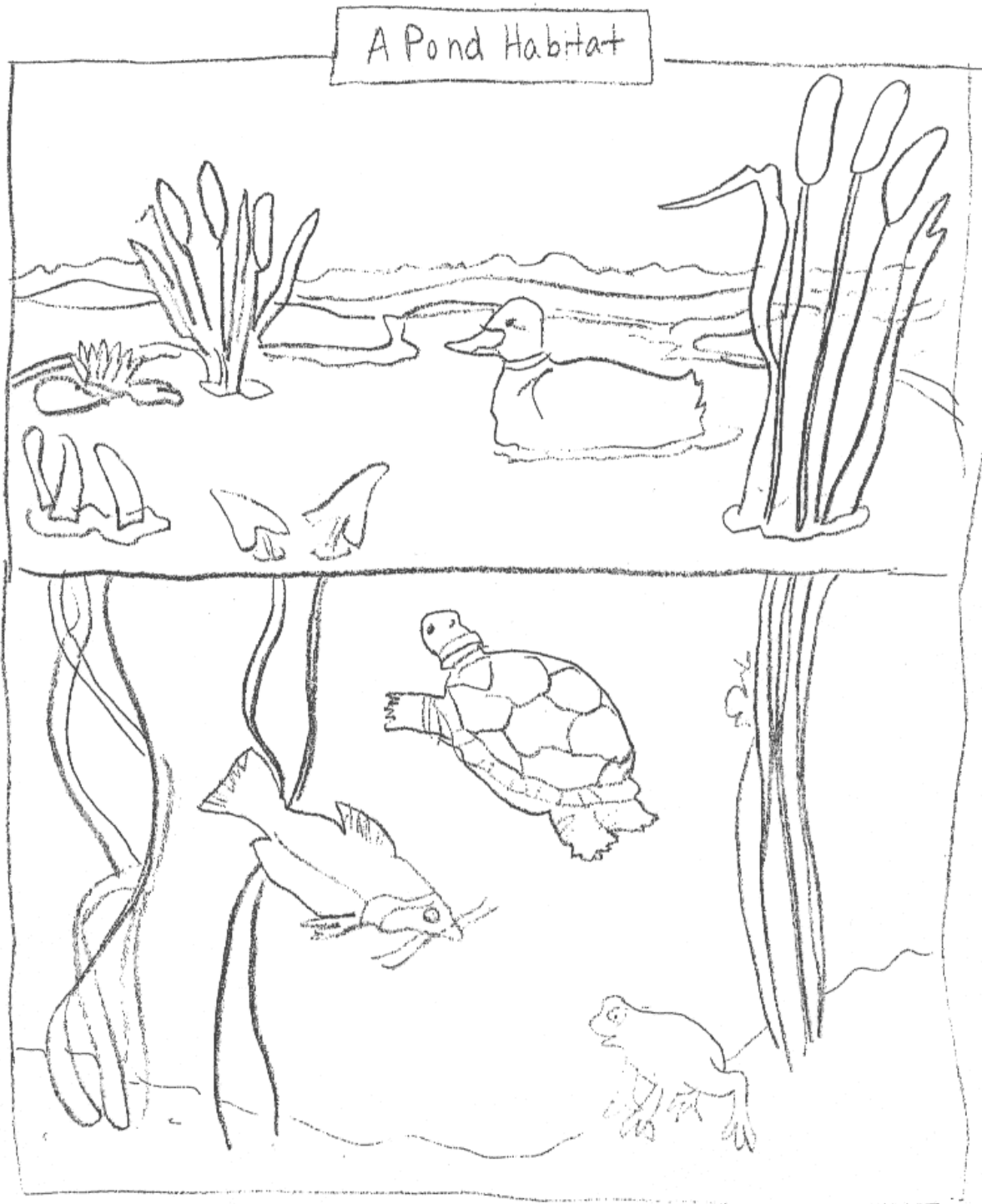


Pineapple

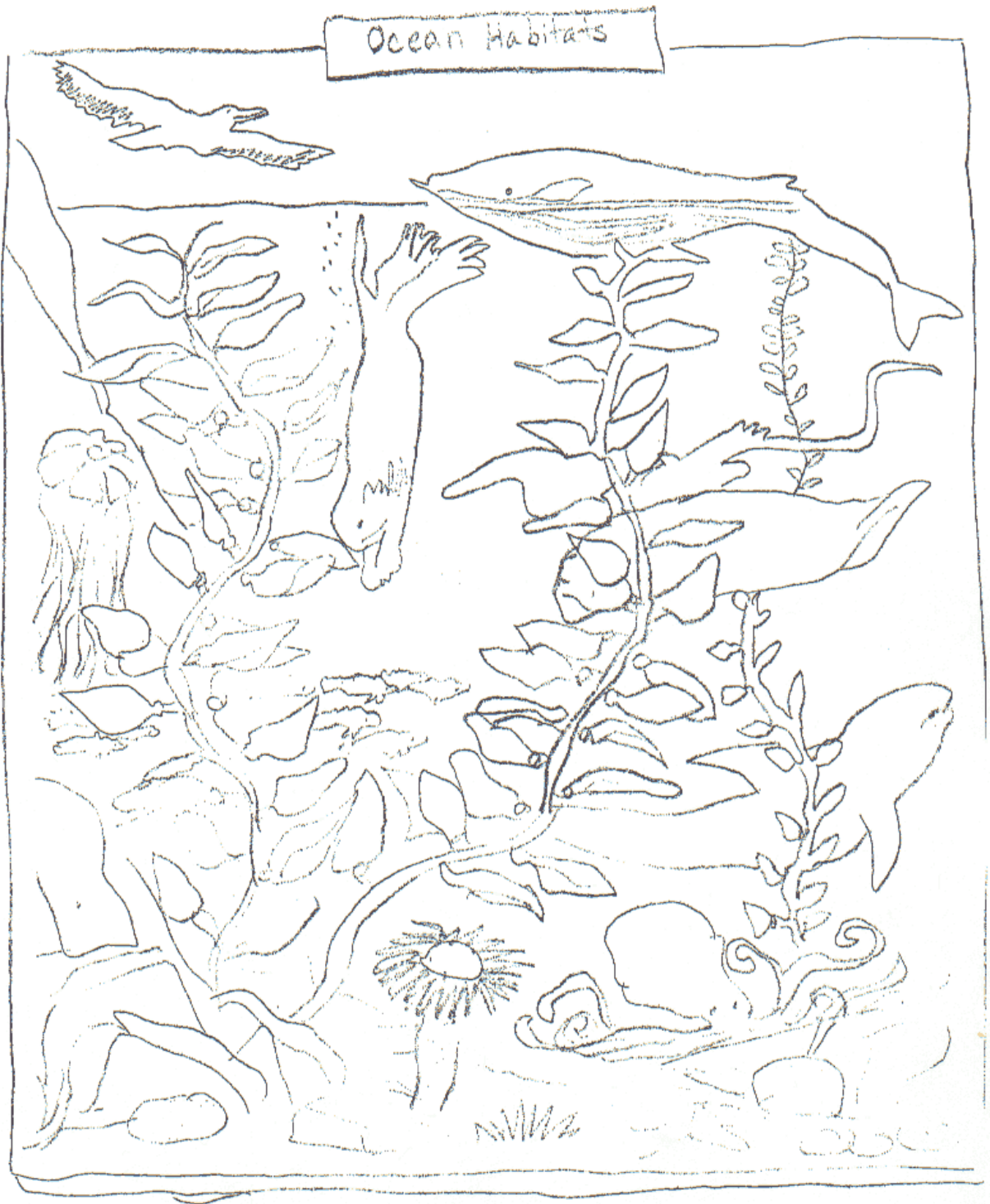


coffee

Appendix B, page 8-Habitats of the World



Appendix B, page 9-Habitats of the World



Oceans

Many interesting animals live in the ocean. Ocean animals have adapted to be able to live in the salty water. Some live in places where tides move in and out. Others live far from land in the open ocean.

Many of the animals that live in the ocean do not have a backbone. These animals either have hard shells or have their skeleton on the outside of their body. The octopus has a soft body and no skeleton or shell at all.

Appendix B, page 11-Habitats of the World

There are many kinds of fish that live in the ocean. Fish come in many different colors, shapes, and sizes. Fish live near the shore, out in the open ocean, and even near the bottom of the sea. Fish are able to breathe underwater using their gills. Most fish are covered in scales and use fins to swim.

Mammals on land breathe with lungs. Mammals in the ocean breathe with lungs too. They can stay under water for a long period of time but they still must come to the surface for air. Some ocean mammals live near land. They might crawl out of the water part of the day. Some ocean mammals swim far out in the ocean.

Name _____

Forests

A forest is a large area of land covered with trees and bushes. In a forest there are many kinds of plants and animals that depend on each other for food and shelter.

There are many types of forests. Each type has its own weather and plants and animals.

Deciduous Forests

There are deciduous forests in many parts of the world. In autumn the leaves turn bright colors and begin to fall off. By the time winter comes around the trees have shed their leaves. In the spring the trees begin to grow new leaves and in the summer the trees are covered in green leaves again.

Coniferous Forests

Coniferous forests have evergreen trees. Conifers keep their leaves all year. Their leaves are needle-like. The seeds of conifers are in their cones and fall out in warm weather.

Some conifers have thin, sharp leaves. Some have flat, rubbery leaves. Their cones are different sizes and shapes, too.

Coniferous trees are eaten by animals. They eat almost every part of the tree. The cones have tasty seeds. The tree bark, buds, and needles are eaten as well.

Rainforests

Rainforests have tall, broad-leaved trees that grow close together. Most rainforests have evergreen trees. There is a thick group of other plants growing in and around the trees.

A rainforest is very hot. There is so much water in the air that it feels sticky. The temperature does not change very much from day to night or from month to month. In some parts of the rainforest it rains every day!

The plants in a rainforest grow so thick that they block out the sun. Therefore the ground is dark. The plants grow in different layers. The forest floor is the bottom layer. Next comes the understory, then the canopy, which is like a big green umbrella. At the top is the emergent layer where the tallest trees reach for the sunshine.

Appendix B, page 15-Habitats of the World

A rainforest includes many different types of animals. Animals live everywhere in a rainforest. You can find them on the ground, in bushes, and in the trees.

Experiment Log

Experiment: _____

What we did: _____

What happened: _____

What we learned: _____

Trees

Coniferous trees are _____

_____.

Deciduous trees are _____

_____.

Draw a picture of each type of tree.

Coniferous

Deciduous

Animal Report

My report is about _____.
(animal's name)

My animal lives _____.
(habitat)

I learned these facts about my animal:

1.

2.

3.

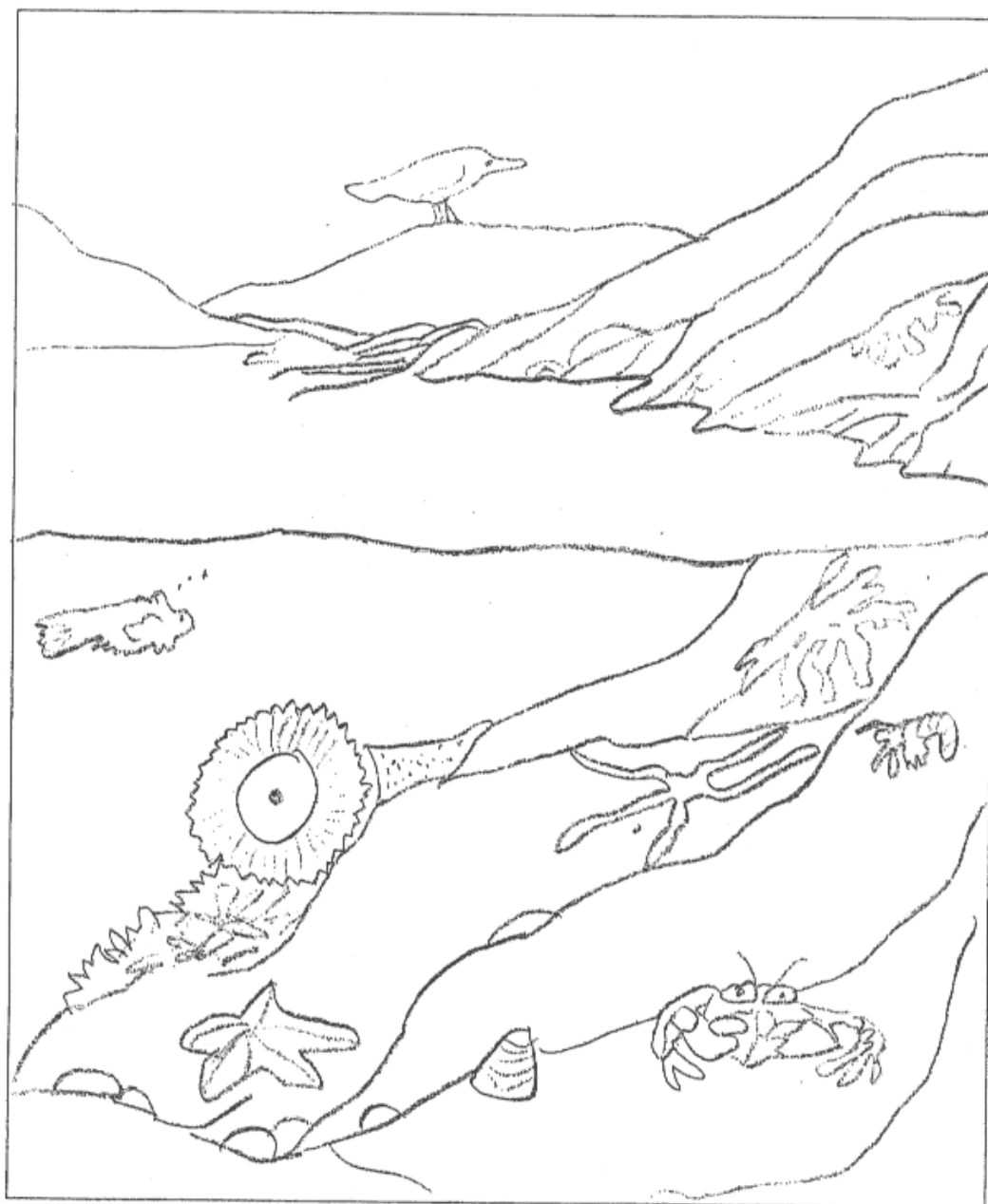
Giant Kelp – An Ocean Forest

Kelp is the name for a group of large seaweeds that sometimes grow over 100 feet tall. There are three parts to a kelp plant:

1. **Holdfast** – It looks like a root, but it holds the kelp to a rock so it won't be swept away by the tide. Small sea animals like crabs, snails, brittle stars, and worms live here.
2. **Stipe** – The stipe is like a stem. It is tough, but it bends easily. Food moves through the stipe to the bottom of the kelp. Sea snails move up and down the stipes. Many fishes swim here.
3. **Blade** – The blade looks like a leaf. It makes food for the kelp plant. It makes spores which produce new kelp plants. Hollow bumps filled with air (floats) pull the blades up to the surface where they can get more sunlight. Sea otters swim here. The otters wrap up in the kelp when they sleep so they won't float too far from shore.

Tide Pool

Circle the animals living in this tide pool.



What Belongs in the Open Ocean?

Color the animals that belong in the open ocean.
Put an X on the animals that do not belong.

