-		-			
DO	VOUIT.	Inv	estic	gatio	n
	1001	WH II A	00111	70110	

✓ 3. Follow your steps. Ask questions about what you see.

Collect and record data.

✓ 4. Fill in the chart.

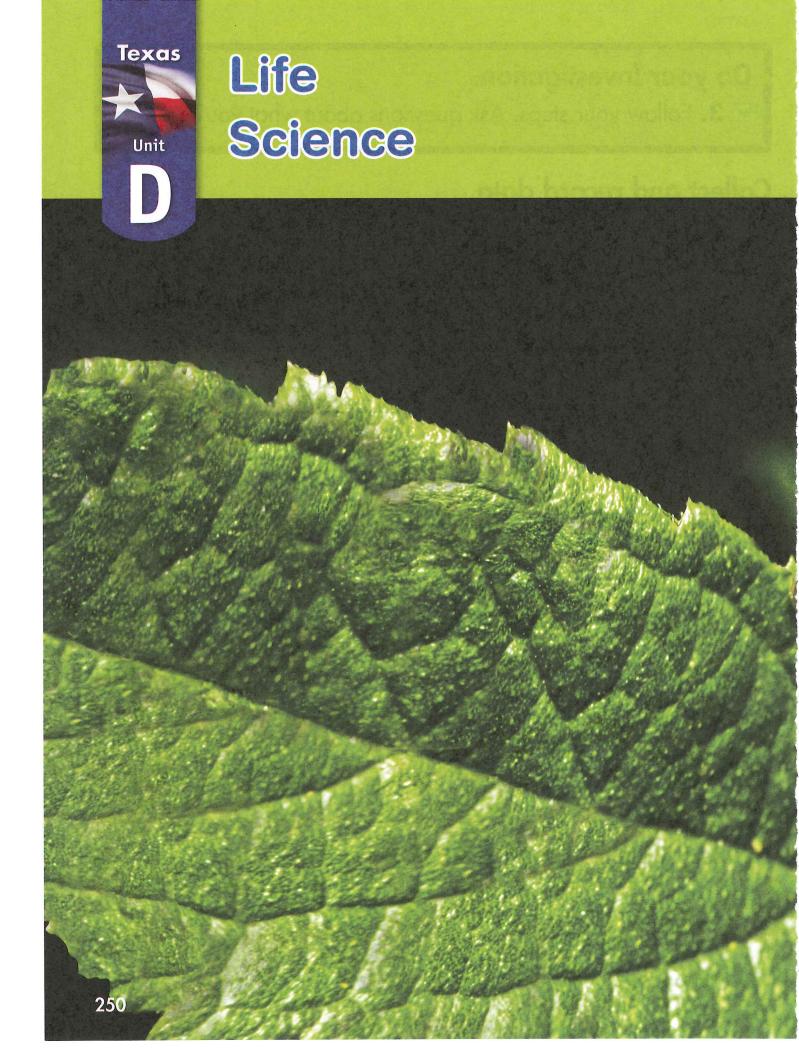
Observations of Evaporation					
Observation 1					
Observation 2					
Observation 3					
Observation 4					

Tell your conclusion.

5. Infer What do you think is the white material on the saltwater cup? Why do you think this?

6. Infer

Does the salt in the ocean evaporate? Explain.



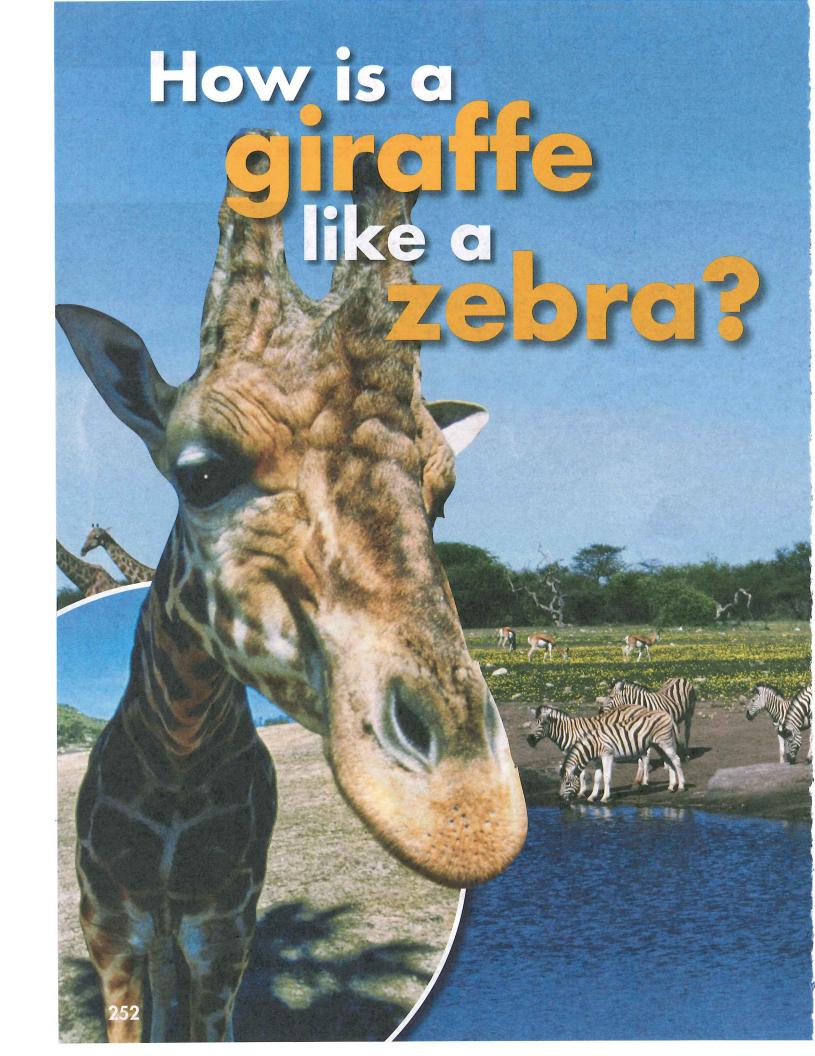


Content TEKS
Plants and Animals: 9A, 9B, 9C Environments: 9A, 10A, 10B, 10C

Process TEKS

1A, 1B, 2A, 2B, 2C, 2D, 2E, 2F, 3A, 3B, 3C, 4A









Lesson 1 What do plants need?

Lesson 2 What do animals need?

Lesson 3 Where do plants and animals live?

Lesson 4 How does the environment affect growth and behavior?

Lesson 5 How do living things get food?



How do plants and animals live in their habitat?

Draw an X on two things that the giraffe needs. **Tell** how your needs and a giraffe's needs are alike.



Texas Essential Knowledge and Skills

TEKS 9A Identify the basic needs of plants and animals. **9B** Identify factors in the environment, including temperature and precipitation, that affect growth and behavior such as migration, hibernation, and dormancy of living things. **9C** Compare and give examples of the ways living organisms depend on each other and on their environments such as food chains within a garden, park, beach, lake, and wooded area.

Process TEKS: 1A, 2B, 2D, 2E, 2F, 3A, 3B, 3C, 4A

TEKS 9A, 1A, 2B, 2D, 2E

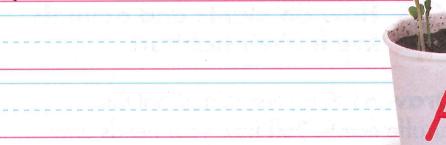
What do plants need to be healthy?

- 1. Put 10 seeds in Cup A.
 Put 80 seeds in Cup B.
- 2. Cover the seeds with soil.Add 4 spoonfuls of water.Put the cups in sunlight.Add 1 spoonful of water every day.
- 3. Observe How do the plants look after 3 weeks?



Inquiry Skill

When you collect data, you show what you observe.

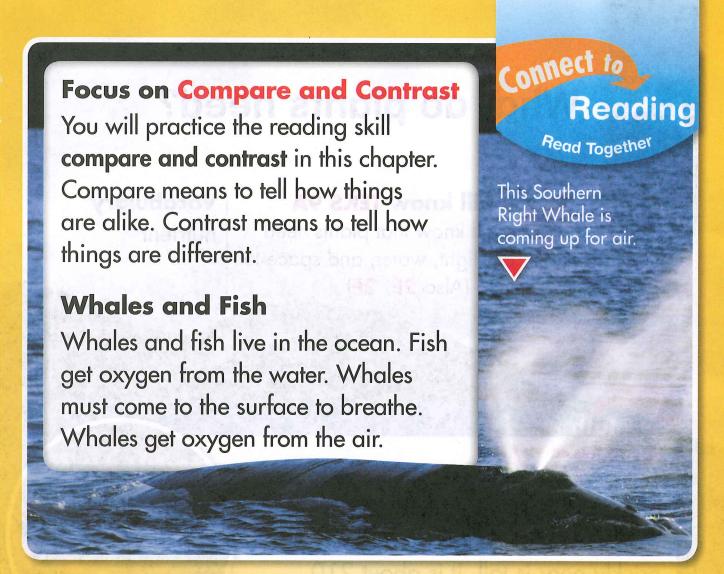


Explain Your Results

4. Which plants look healthier?

Texas Safety
LABRULES
Clean up spills.
Wash your hands.

5. Draw a Conclusion What is one thing plants need to be healthy?



Practice It!

Compare and contrast whales and fish.

Compare	Cake prickly		
	y deart	in the plains prickly to find out.	



What do plants need?



I will know TEKS 9A

I will know that plants need air, light, water, and space to live. (Also **2E**, **2F**)

Vocabulary nutrient

Connect to

Math TEKS 4C

The prickly pear cactus is the state plant of Texas. There are many different kinds of prickly pear cactus. The pancake prickly pear is tall. It is about 210 centimeters tall. The plains prickly pear is only about 30 centimeters tall.

How much taller is the pancake prickly pear than the plains prickly pear?
Subtract to find out.



plains prickly pear

pancake prickly pear



Quick Lab

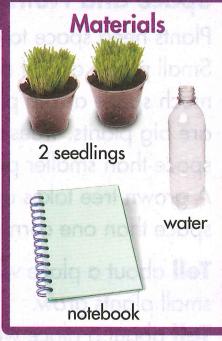
TEKS 9A, 1A, 2B, 2E, 4A

What happens to plants without light?

- 1. Place one plant by a window.Put the other plant in a dark closet.
- **2.** Water both plants every other day.
- 3. Observe the plants every day.
 Ask questions about what you see.
- 4. Record your observations in your notebook.

Explain Your Results

5. Draw Conclusions Tell why the plants begin to look different.

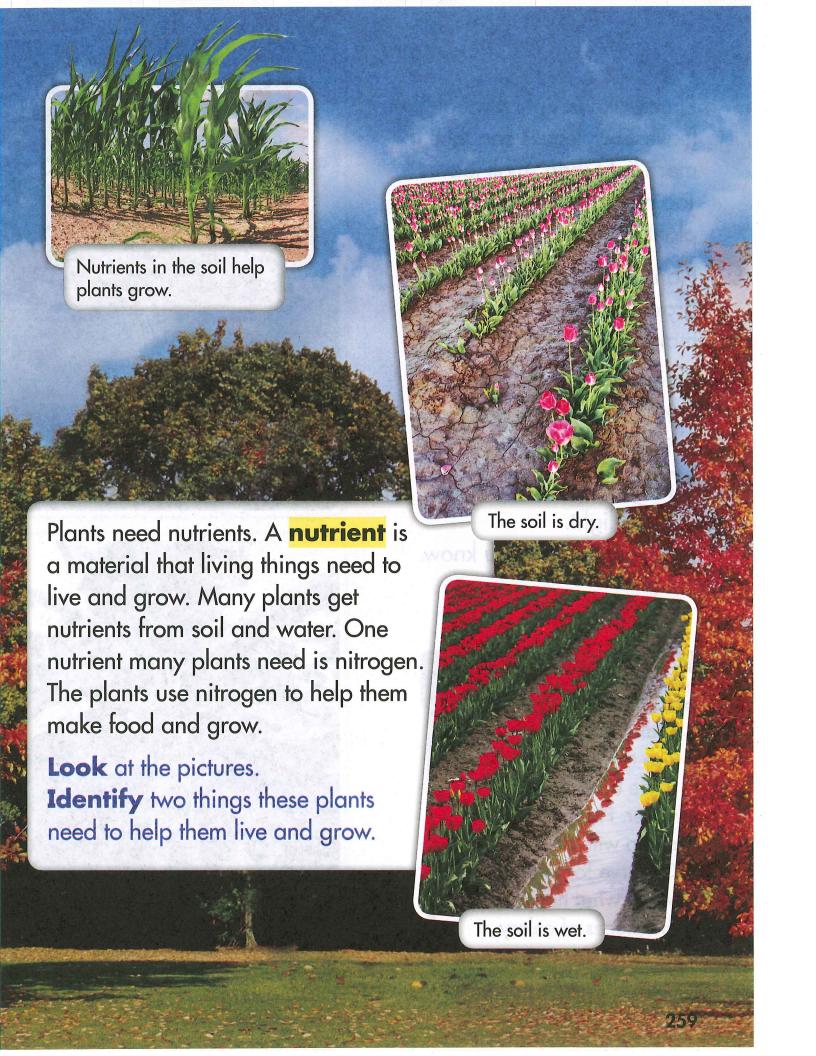












Light

Plants take in light through their leaves. Big leaves can take in more light than small leaves. Too much light might burn a plant's leaves.

Plants need light to live and grow. Plants use light to make food.

Some plants need a lot of light. Other plants need only a little light.

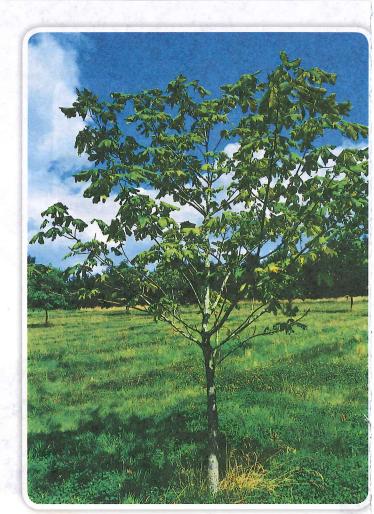
in more light.

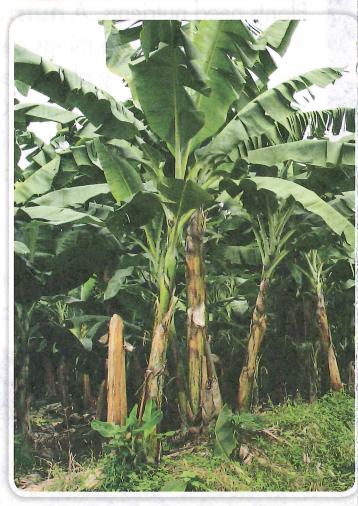
Underline how you know.



Water and Celery

Use two pieces of celery. Place one in a cup with water. Place one in a cup with no water. Observe for three days. Write what happens to the pieces of celery.









What do animals need?



I will know TEKS 9A

I will know that animals need food, air, water, and shelter to live. (Also **2D**)

Vocabulary energy

Connect to

There are many animals on Mr. Brown's farm. The animals are different sizes. His cow is 152 centimeters (60 inches) long. One of the pigs is 91 centimeters (36 inches) long. One of the ducks is 56 centimeters (22 inches). Arrange the lengths of the animals from shortest to longest. Use the symbol < to order the numbers. • Math TEKS 2D



Quick Lab

TEKS 9A, 2D

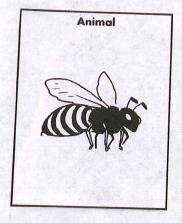
What do some animals eat, and where do they live?

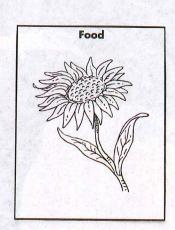
- 1. Classify Match each animal with one of the foods it eats.
- 2. Match each animal with its shelter.

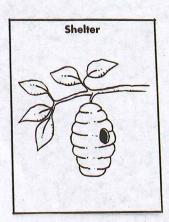
Materials



Animal, Food, and Shelter Cards

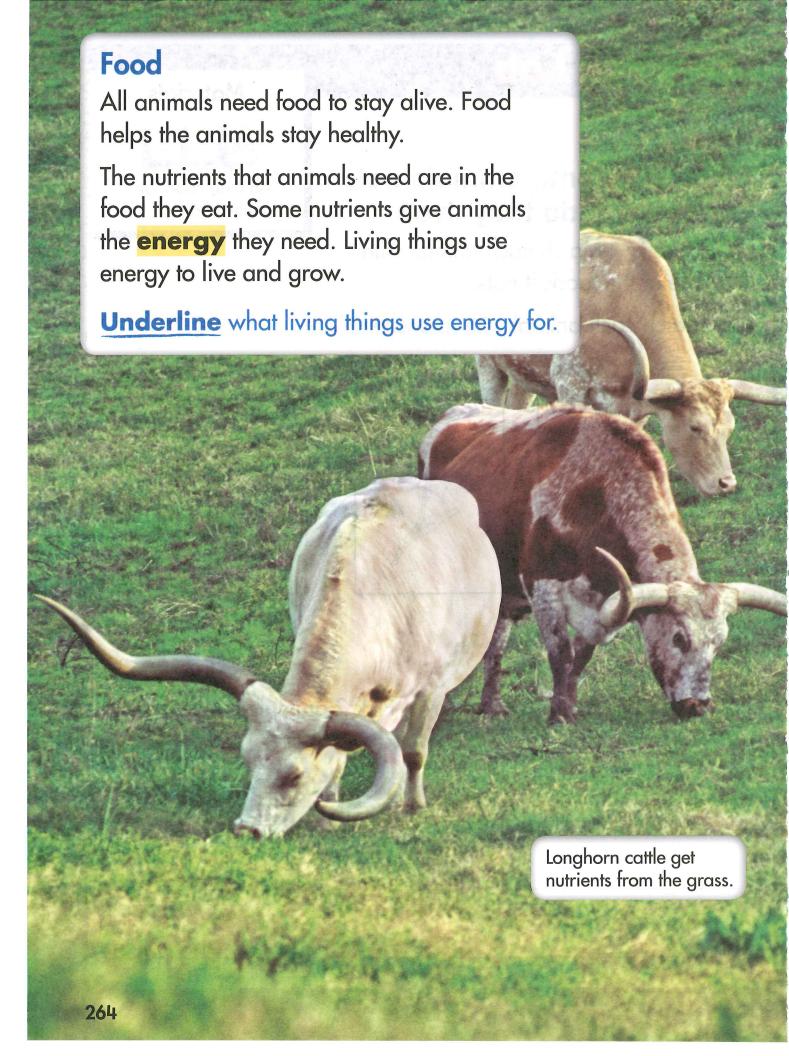


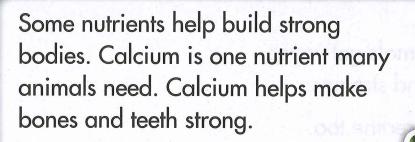




Explain Your Results

3. Communicate Use the cards. Pick 2 animals. Compare and contrast their food and shelter.





Write about why animals need nutrients.



Plants make their own food.

Circle the body part the bear uses to catch the fish.



Water and Air

All animals need water. Animals get water from lakes, rivers, ponds, and streams.

Animals need clean air to breathe too.
The air animals breathe helps them get the energy they need from food. Even whales need air to stay alive. Whales surface above the water to take in the air they need.

Draw an X on something that animals need. **Identify** another thing they need.



Shelter

Animals need shelter. Shelter is a place where an animal can stay safe from weather and danger. Animals live in many different kinds of shelters.

Prairie dogs find shelter underground. They make burrows by digging many tunnels.

Circle where you think the prairie dogs might be safest.

Draw a shelter that a bird might use.



prairie dog shelter



🕍 Quick Lab

Animal Needs

Draw a picture of an animal. Write what it eats and uses for shelter. Share and discuss drawings with a partner. Compare and contrast the animals and their shelters. 👆 TEKS 9A



Where do plants and animals live?



I will know TEKS 9A, 9B

I will know that plants and animals live in habitats that meet their needs. (Also 2E, 2F, 3A)

Vocabulary habitat

The Chihuahuan Desert is in both the United States and Mexico.

connect to

Social Studies

Social Studies TEKS 6B, 6C

The Chihuahuan Desert is a very large desert. It is in the United States and Mexico. Part of the desert is in Texas.

Look at the map.

Circle the part of the desert in Texas.





Quick Lab

TEKS 9B, 2E, 2F

Where can plants live?

- Use a spray bottle.Wet 2 paper leaves.
- **2.** Cover one with waxed paper.
- ☑ 3. Put both in a sunny place.
- 4. Wait 15 minutes. Observe.

Explain Your Results

5. Communicate How do the leaves feel and look after 15 minutes?

Materials



paper leaves

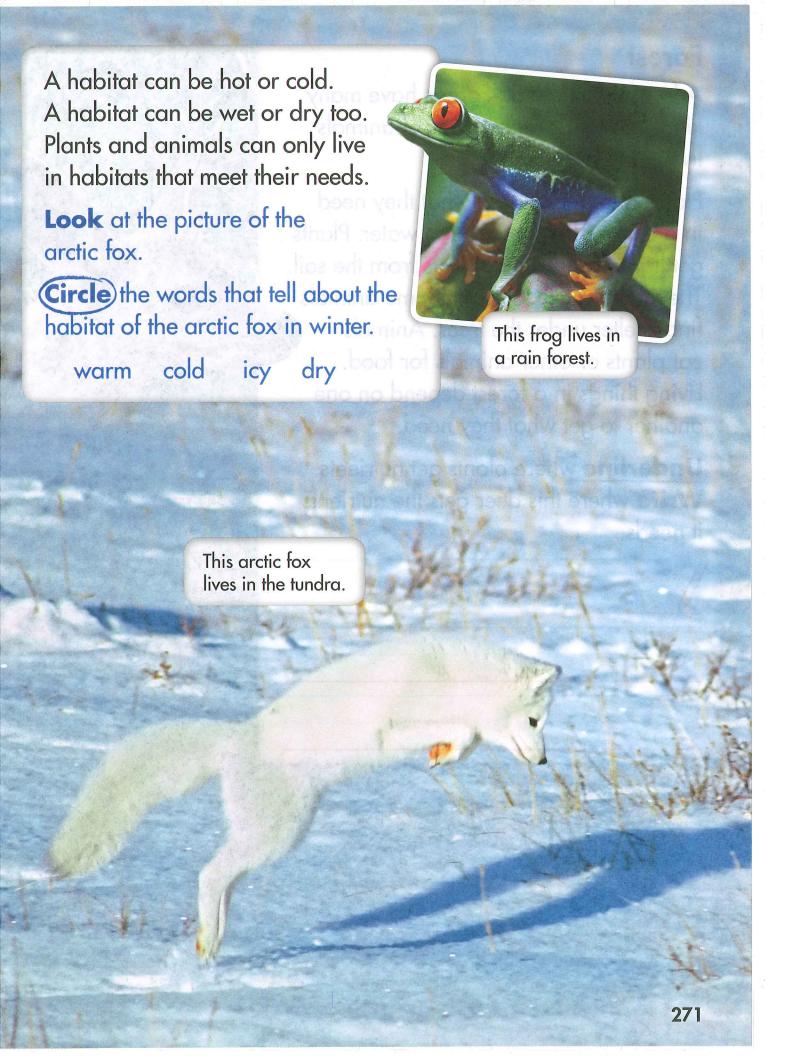
spray bottle with water

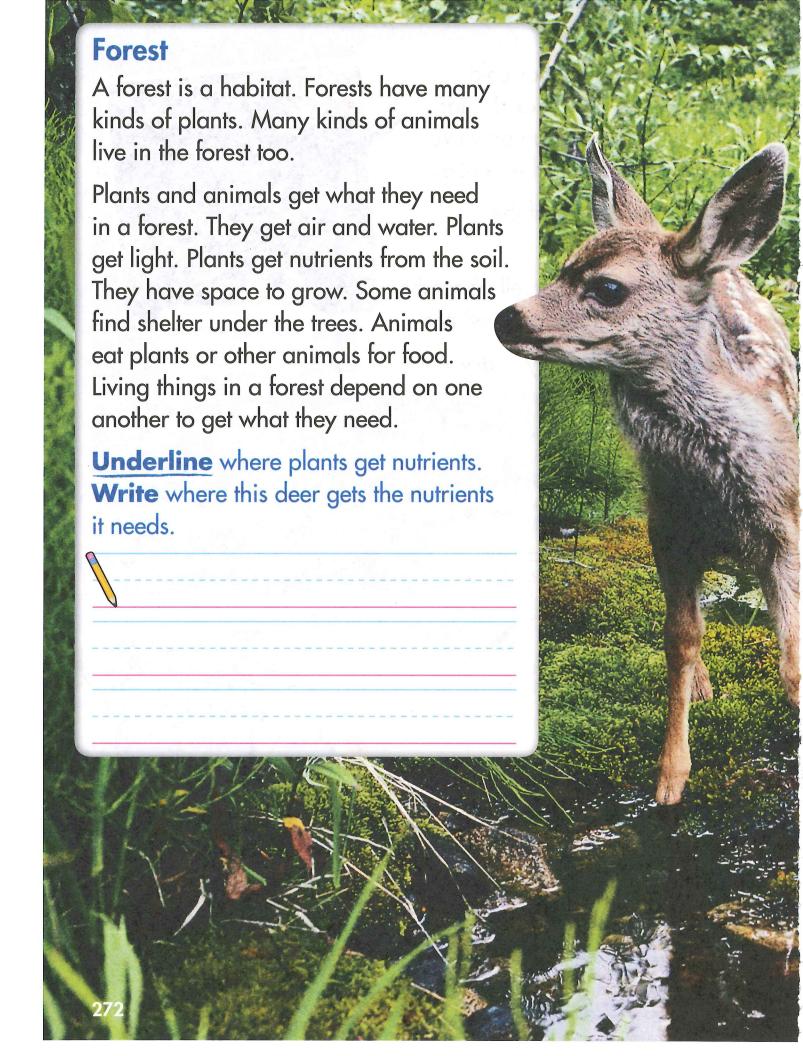
waxed paper

The waxed paper covers the paper leaf. Some leaves have a waxy cover too.

- 6. Infer How might a waxy coat help a leaf?
- 7. In what type of habitat might waxy leaves be most helpful to a plant?





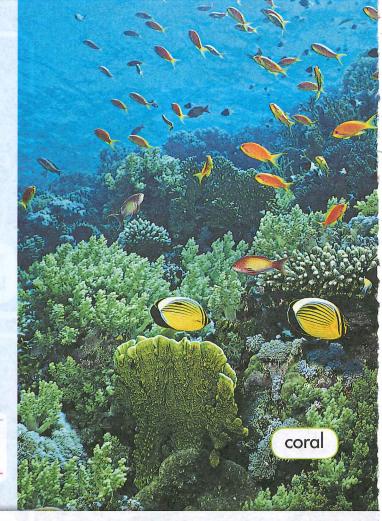




Ocean

The ocean is a habitat. The ocean has salt water. The ocean is large and deep. Many different plants and animals live in the ocean. They get what they need from their habitat. These fish find the food they need in the coral reef.

Write how these fish get what they need.

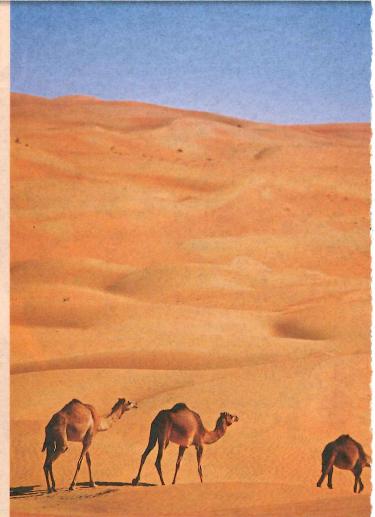


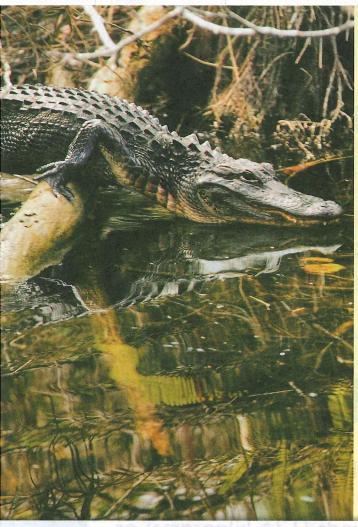
Desert

Deserts are dry habitats. Some plants and animals can live in a desert. Food and water can be hard to find in a desert.

Cactuses and camels live in some deserts. Cactuses can hold water in their stalks and roots. Fat in its hump helps a camel live in dry places.

Underline how a cactus can live with very little water.





Wetland

A wetland is mostly covered with water. Plants that need a lot of water grow in a wetland.

Plants and animals depend on one another to get what they need in a wetland. Animals eat plants or other animals in a wetland. This alligator eats fish that live in the water.

Tell what kinds of plants grow in a wetland.



Rain Forest

A rain forest is a wet habitat. It gets a lot of rain. Many trees grow tall to get sunlight. Short plants get little or no sunlight.

Many different animals live in a rain forest. Animals find food and shelter in a rain forest. This sloth gets what it needs from the rain forest.

Circle one thing the sloth needs.



How does the environment affect growth and behavior?



I will know TEKS 9B

I will know that some living things respond to changes in their environment. (Also 2E, 2F, 3A)

Vocabulary

adapt migrate hibernate dormant



connect to

Math

Math TEKS 2B

The black bear sleeps through most of the winter. A black bear is a big animal. It can weigh 300 pounds (136 kilograms) or more! Circle the words for the number 300.

three

thirty

three hundred

three thousand



PEARSON Texas.com



Quick Lab

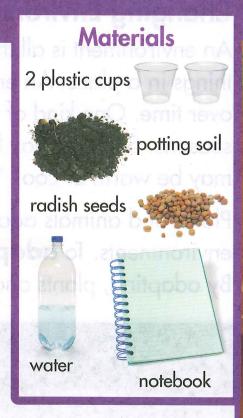
TEKS 9B, 2E, 2F, 4A

What do seeds need to grow?

- 1. Fill both cups with potting soil. Push about 5 radish seeds into the soil.
- **2.** Add water to one of the cups. Place that cup on a table. Put the other cup in a refrigerator.
- ■3. Water the cup on the table every other day.
- 4. Observe the cups every day. Record your observations.

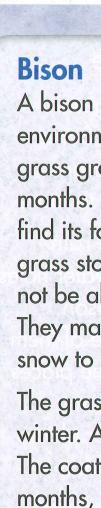
Explain Your Results

- **5. Communicate** Tell 2 things seeds need to grow.
- **6. Draw Conclusions** Would a seed begin to grow outdoors during a very cold winter? Explain.







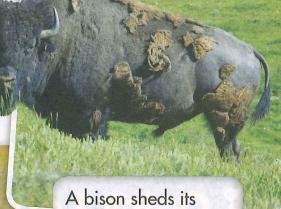


A bison lives in a grassland environment. It eats grass. The grass grows during the warm months. The bison can easily find its food. In winter, the grass stops growing. Bison may not be able to find food easily. They may have to dig through snow to find grass to eat.

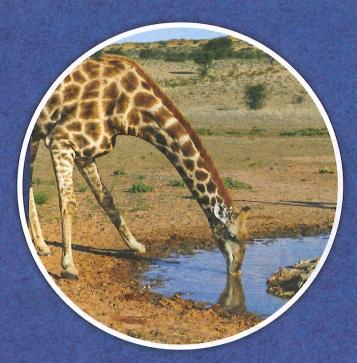
The grasslands can be very cold in winter. A bison grows a thick coat.
The coat helps it stay warm. For warm months, the bison sheds its thick coat. It has a thin coat in summer.

Tell how grasses adapt to winter.
Tell how bison adapt to winter.





A bison sheds its winter coat in spring.



Animals need to get water from their environment.

Animals on the Move

Animals respond to changes in seasons in different ways. Some animals migrate when seasons change. **Migrate** means to move.

Some places get very little rain during part of the year. Water holes may dry up in the dry season.

Animals need water. Some of them migrate to find water. Some places have very cold winters. Some animals migrate to warmer places when the weather gets cold.

Underline the words that tell when some animals migrate.



Quick Lab

Identify a Way to Adapt

Look at the dry water hole. How would this affect animals that come to the water hole? How could the animals adapt to this change in the environment? TEKS 9B, 3A

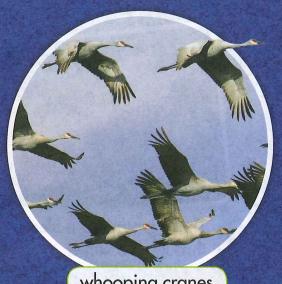
This water hole is dry.

Birds and Butterflies

Many kinds of animals migrate. Some birds, insects, and sea animals such as gray whales migrate.

Whooping cranes are birds that migrate. Some whooping cranes migrate to Texas from Canada every fall. Texas is much warmer in winter than Canada is. In spring the whooping cranes leave Texas. They return to Canada.

Monarch butterflies are insects that migrate. They migrate south when the weather gets cold in the north. They return north when the weather gets warmer there.



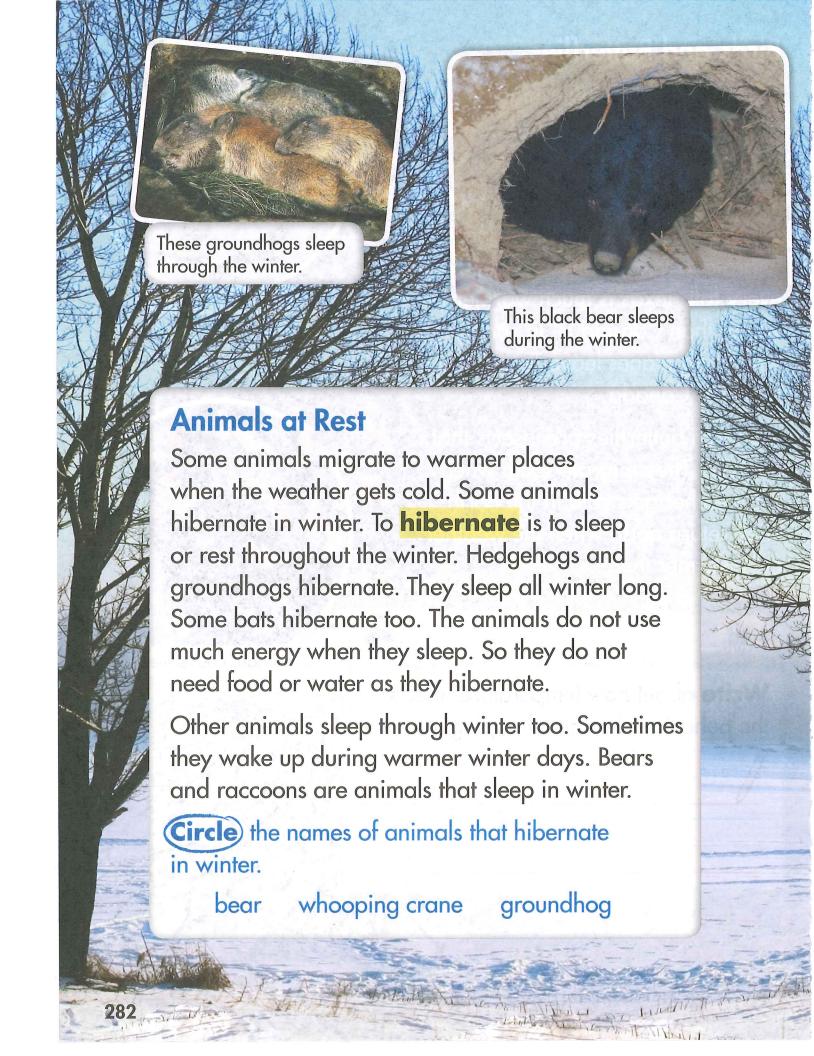
whooping cranes



monarch butterflies

the behavior of some whooping cranes.

Write about how temperature affects



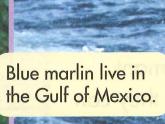




Life in the Gulf of Mexico

Texas borders the Gulf of Mexico. The Gulf of Mexico is part of the ocean. It has salt water. Many different kinds of fish and other sea life live in the gulf. Shrimp, crabs, and oysters live in the gulf. Sea turtles live in the gulf. Blue marlin and gulf kingfish live there too.

Sea turtles live in the Gulf of Mexico.



Name two kinds of sea life that live in the Gulf of Mexico.

Visit an Aquarium

FieldTrip

Read Together

An aquarium is an interesting place! You can see animals that live in the water at an aquarium. An aquarium provides different environments for different animals. Ocean animals live in salt water. Animals from lakes and rivers live in fresh water. Visitors at the Texas State Aquarium in Corpus Christi learn all about the animals that live there.

Tell what you can see at an aquarium.

Texas

How do living things get food?



I will know TEKS 9C

I will know how food chains work. (Also 1A, 2B, 2D, and 2E)

food chain predator prey



Reading

What do frogs eat? Find the answer in a book or on the Internet. ** ELA TEKS 21A





Quick Lab

♣ TEKS 9C, 1A, 2B, 2E

What is the order of a food chain?

- 1. Make a model of a food chain.Color the sun on the plate.Tape the yarn to the plate.
- 2. Cut apart the cards.Tape the cards in order on the yarn.

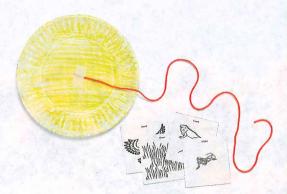
Explain Your Results

3. Communicate How did you decide the order of your food chain?

4. Where does grass get energy to make its food?



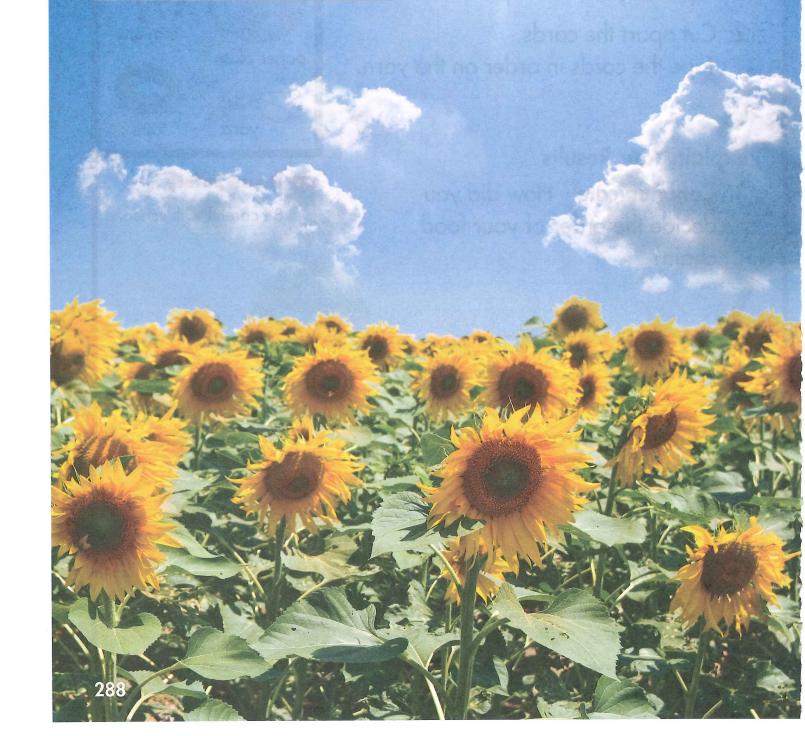




Energy from Food

All plants and animals need food. Most plants make food using sunlight, water, and air. Plants store this food in their leaves, stems, and other parts. Plants use the energy in the food to live and grow.

Sunflowers need sunlight to grow.







Draw a Food Chain

Choose a habitat, such as a garden, park, beach, lake, or wooded area. Draw a food chain that shows how energy passes from one living thing to another in that habitat. Tell about your food chain.

TEKS 9C, 2B, 2D, 2E

Food Chains

A **food chain** shows how energy passes from one living thing to another. The energy in a food chain comes mostly from the sun. Plants use the sun's energy to make food. Some animals get energy by eating the plants. Other animals eat those animals.

Look at the food chain. Energy passes from sunlight to the hawk through this food chain.

Complete the sentence.

Energy in most food chains begins

with the

Grasses use water, air, and energy from sunlight to make food.

Voles eat grass for energy.

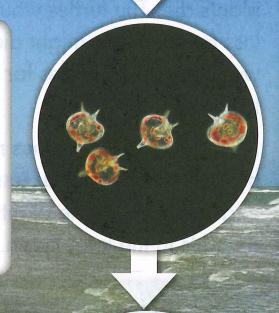




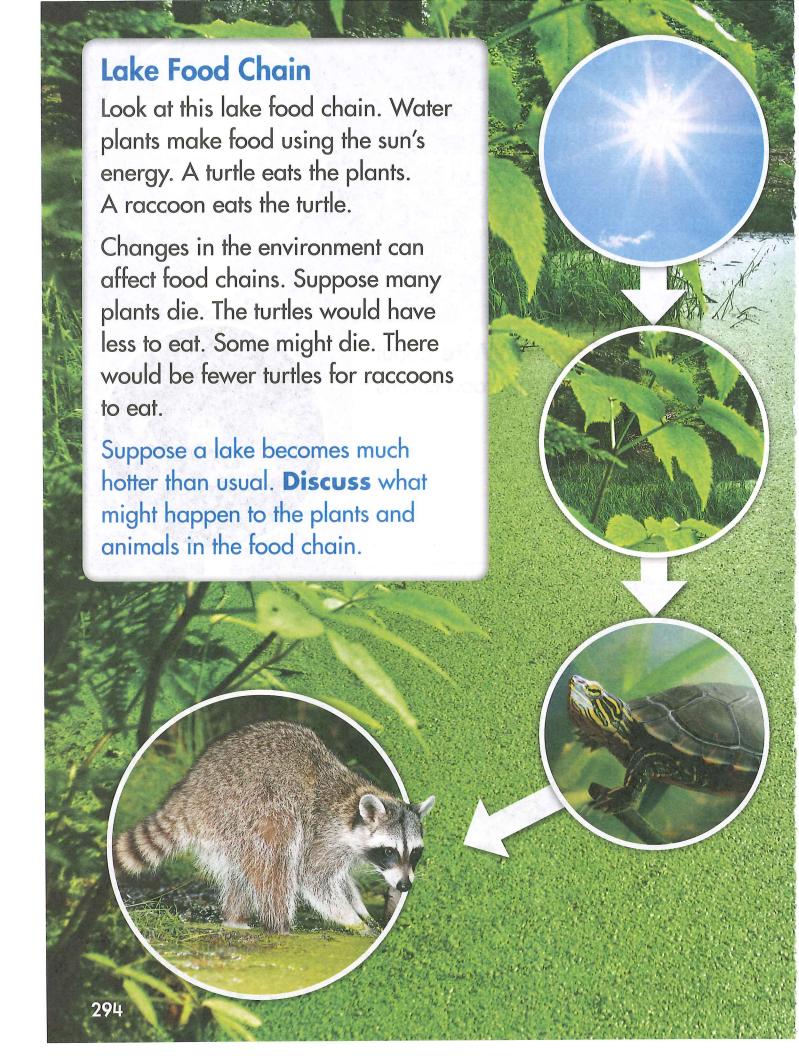
Beach Food Chain

Some plants and animals live near the beach. Tiny water plants use the sun's energy to make food. Tiny animals in the water eat these plants. Sand crabs live along some beaches. They feed on these plants and animals. Fish and birds eat the crabs.

Compare and Contrast Write about one way beach and park food chains are alike.









A wooded area has many food chains. Some wooded areas have oak trees. An oak tree uses the sun's energy to make food. The tree makes nuts called acorns. A squirrel eats the acorns. A fox eats the squirrel.

Draw arrows to show how energy passes through this food chain.





TEKS 9A, 1A, 2B, 2D, 2E, 2F, 3B

How does water affect plant growth?

Follow a Procedure

- 1. Label one cup water.Add water when the soil feels dry.
- 2. Label the other cup **no water**.Do not add water.
- 3. Observe the plants daily for 5 days.



Inquiry Skill

Scientists make careful observations and record them accurately. They use their observations to make **predictions**.



Clean up any spills. Wash your hands.



4. Record your observations below.

Plant Observations						
Day	Water	No Water				
Day 1	(38.4)	axar d				
Day 2	900	The Dollas Arboretum and Botanical Garden is a fun pl				
Day 3		forest areas, flower gardens				
Day 4	ony is	trees, magnolia trees, and in different kinds of flowers are				
Day 5		found in the gardens. A great way to learn is to ex				

Analyze and Conclude

- 5. Do plants need water? Explain.
- 6. Predict What might happen if you watered the **no water** plant? Test your prediction.



Visit a Texas Arboretum

TEKS 9A, 3C

The Dallas Arboretum and Botanical Garden is a fun place to visit. The arboretum includes forest areas, flower gardens, and the White Rock Lake. Ferns, maple trees, magnolia trees, and many different kinds of flowers are found in the gardens.

A great way to learn is to explore!
You can explore the arboretum's
Trial Gardens. Here plant scientists
grow many different kinds of
plants. They are learning what
plants grow best in north Texas.

Tell what plant scientists do in the Trial Gardens.



arboretum.

Vocabulary **Smart Cards**

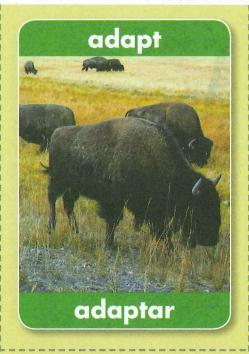
adapt dormant energy food chain habitat hibernate migrate nutrient predator prey

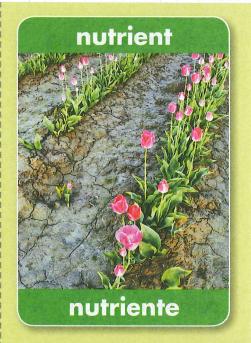
Play a Game!

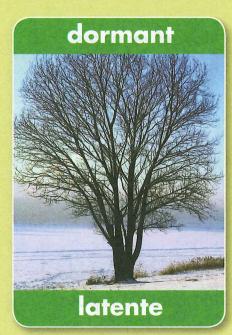
Cut out the cards.

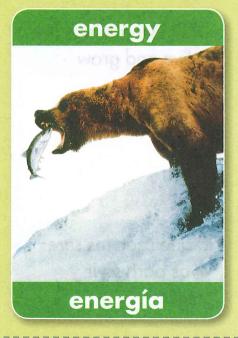
Work with a partner. Pick a card. Cover up the word.

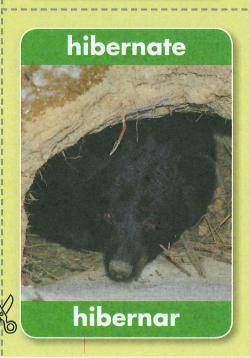
Look at the picture and guess the word.

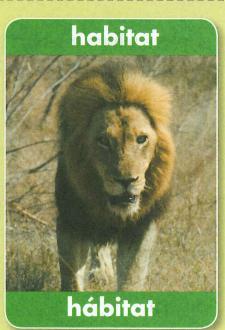






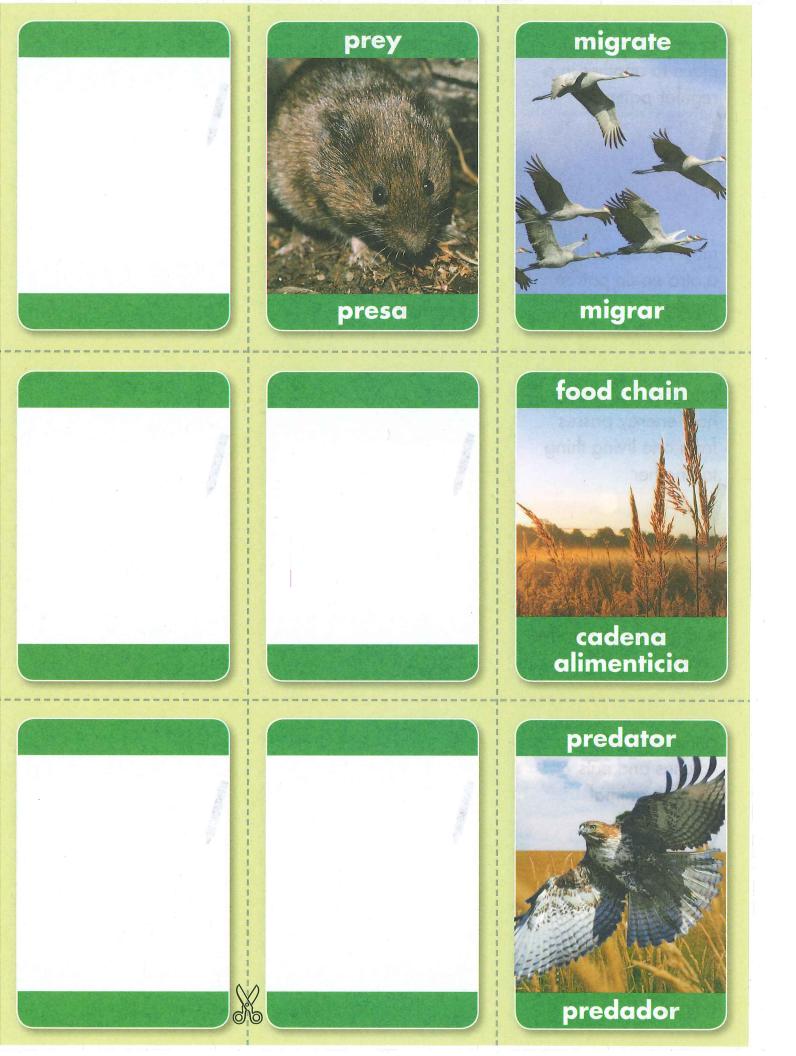








a material that living to change things need to live and grow un material que los seres vivos necesitan cambiar para vivir y crecer what living things use not active; at rest to live and grow lo que usan los seres inactivo; en estado de vivos para vivir y descanso o reposo crecer. a place where a plant to spend all winter sleeping or resting or animal lives pasar todo el un lugar donde vive invierno durmiendo o una planta o un descansando animal 300



an animal that is to move from one caught and eaten place to another in a regular pattern moverse de un lugar a otro en un patrón animal que es cazado regular y comido a model that shows how energy passes from one living thing to another modelo que muestra cómo se transmite la energía de un ser vivo a otro an animal that catches and eats another animal animal que caza y se alimenta de otro animal



TEKS Practice

Lesson 1 TEKS 9A 1. Identify Write about	t one thing that plants need to live.
2. Vocabulary Comple	
	things need to live and grow to as all the sent electrons of the s
Lesson 2 + TEKS 9A	ese basic needs is a place for
animals to live? Circ	the letter.
A water B food	C air D shelter
•	wetland plants wouldn't grow well

TEKS Practice

Lesson 4 + TEKS 9B

5. Classify Draw an animal that migrates.



Lesson 5 + TEKS 9C

6. Vocabulary Complete the sentence.

A model that shows how energy passes from one living thing to another is a



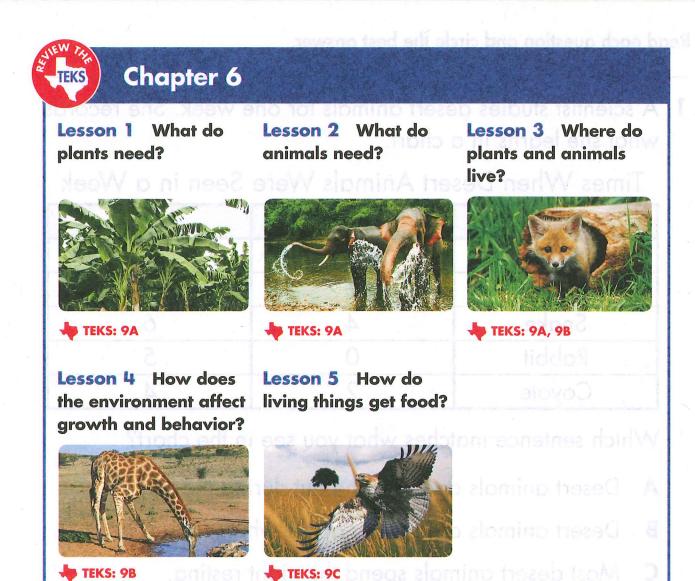
7. Apply Circle the predator in the food chain.

Draw an X on the prey.



8. Compare and Contrast Write one way beach and lake food chains are alike.

TEKS Practice



Read each question and circle the best answer.

1 A scientist studies desert animals for one week. She records what she learns in a chart.

Times When Desert Animals Were Seen in a Week

Animal	Day	Night		
Owl	3	7		
Lizard	1	8		
Snake	4.4 200 00	6		
Rabbit	0	5		
Coyote	2	4		

Which sentence matches what you see in the chart?

- A Desert animals do not come out during the day.
- **B** Desert animals are mainly active when the sun is out.
- C Most desert animals spend the night resting.
- D Desert animals often come out at night when it is cooler.
- 2 Where does most of the energy for a food chain come from?
 - F Plants
 - **G** Plant eaters
 - H Sun
 - **J** Predators

* TEKS Practice: Cumulative Review

3 The diagram shows moon phases, or how the moon looks on different nights of the month.

















What is the reason for moon phases?

- Changes in how much sunlight reflects off the moon
- Changes in how much light the moon makes B
- Changes in the size of the moon
- Changes in the moon's craters
- 4 Nick plans to walk to a park near his home. He steps outside to check the weather. He decides it is not safe to go to the park. What does Nick most likely find out about the weather?
 - He sees clouds.
 - He sees lightning.
 - He feels heat. H
 - He feels wind.

If you have trouble with							
Question	1	2	3	4			
See chapter (lesson)	6 (3)	6 (5)	5 (5)	5 (3)			
TEKS	9B	9C	8D	8B			

#