* TEKS Practice: Cumulative Review

3 Sometimes matter changes but does not become a new kind of matter. Which picture shows this kind of change?







- All of these
- 4 A red apple is on a table in a bright room. You slowly turn down the light in the room. What happens to the apple?
 - It looks larger.
 - Its color seems darker.
 - It gets warmer. H
 - It gets more shiny.

If you have trouble with							
Question	1	2	3	4			
See chapter (lesson)	4 (2)	4 (1)	2 (3)	3 (1)			
TEKS	7B	7A	5C	6A			

When can you see a rain bowy 196

Earth and Sky



Lesson 1 How can you describe weather?

Lesson 2 How can you measure weather?

Lesson 3 How does weather change?

Lesson 4 What is the water cycle?

Lesson 5 What are the moon and the stars?



What patterns are there on Earth and in the sky?

Tell what the weather is like when you can see a rainbow.



Texas Essential Knowledge and Skills

TEKS 8A Measure, record, and graph weather information, including temperature, wind conditions, precipitation, and cloud coverage, in order to identify patterns in the data. **8B** Identify the importance of weather and seasonal information to make choices in clothing, activities, and transportation. **8C** Explore the processes in the water cycle, including evaporation, condensation, and precipitation, as connected to weather conditions. **8D** Observe, describe, and record patterns of objects in the sky, including the appearance of the Moon.

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

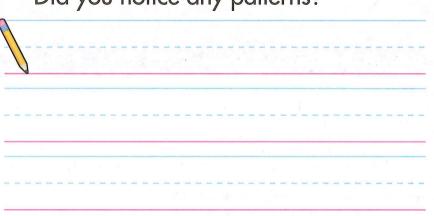
TEKS 8A, 1A, 2C, 2D, 4A

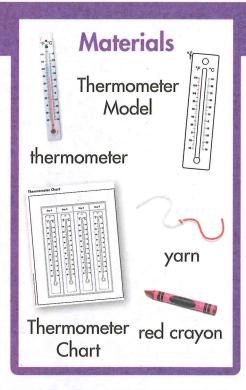
How can you show the temperature?

- 1. Use the Thermometer Model.
 Put each end of your yarn through the holes in front of your model.
- 2. Your teacher will tell you the temperature. Move the yarn up or down to show the temperature.
- Use a real thermometer.
 Measure the temperature outside.
 Measure once in the morning and once in the afternoon.
 Record on the Thermometer Chart.
- **4.** Repeat for 3 more days.

Explain Your Results

5. Tell about the changes in temperature you measured.
Did you notice any patterns?





Inquiry Skill

You can use a thermometer to **measure** temperature.



Handle science tools carefully.





Practice It!

Compare and contrast spring and winter.

Compare	Contrast			
	rad of hiscordines or drawings			
	DA DAY HEN ME SHEET AS			

Texas



Lesson

How can you describe weather?



I will know TEKS 8A

I will know how to observe and describe weather. (Also **2C**, **2E**) Vocabulary temperature precipitation

Connect to

The temperature today is 18° Celsius. Tomorrow is supposed to be 24° Celsius. Write a math problem to show how much warmer tomorrow is supposed to be.

Math TEKS 4C



♣ TEKS 8A, 1A, 2C, 2E

Which way does the wind blow?

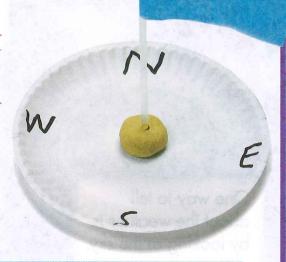
- 1. Label the plate N, E, S, and W. Add clay.
- **2.** Tape the tissue to the straw. Put the straw in the clay.
- 3. Observe outside.
 What direction is the wind coming from?







4. Compare with others. **Observe** again if different. Write.



Weather

You wake up in the morning. How do you know what to wear? Check the weather! Weather is what the air outside is like.

Look outside. **Draw** a picture of today's weather.

One way to tell about the weather is by looking at the sky.

Sometimes you can guess the weather by looking outside. You can also look in a newspaper or on a Web site. These sources tell if the weather will be wet or dry. They tell the air temperature too.

Temperature is how hot or cold something is. The sun changes the air temperature.

Tell how the sun affects weather.

Look at this weather information from a Web site.

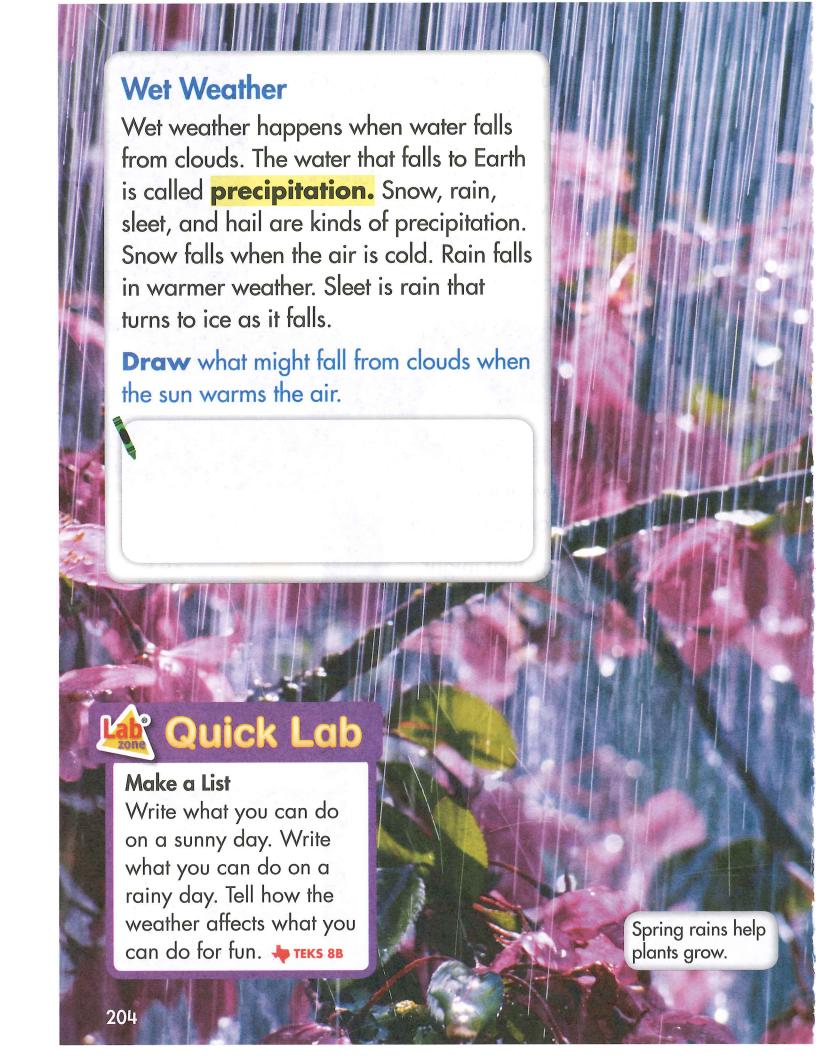
Circle the day that might be rainy. **Draw** an X on the day that will be hottest.

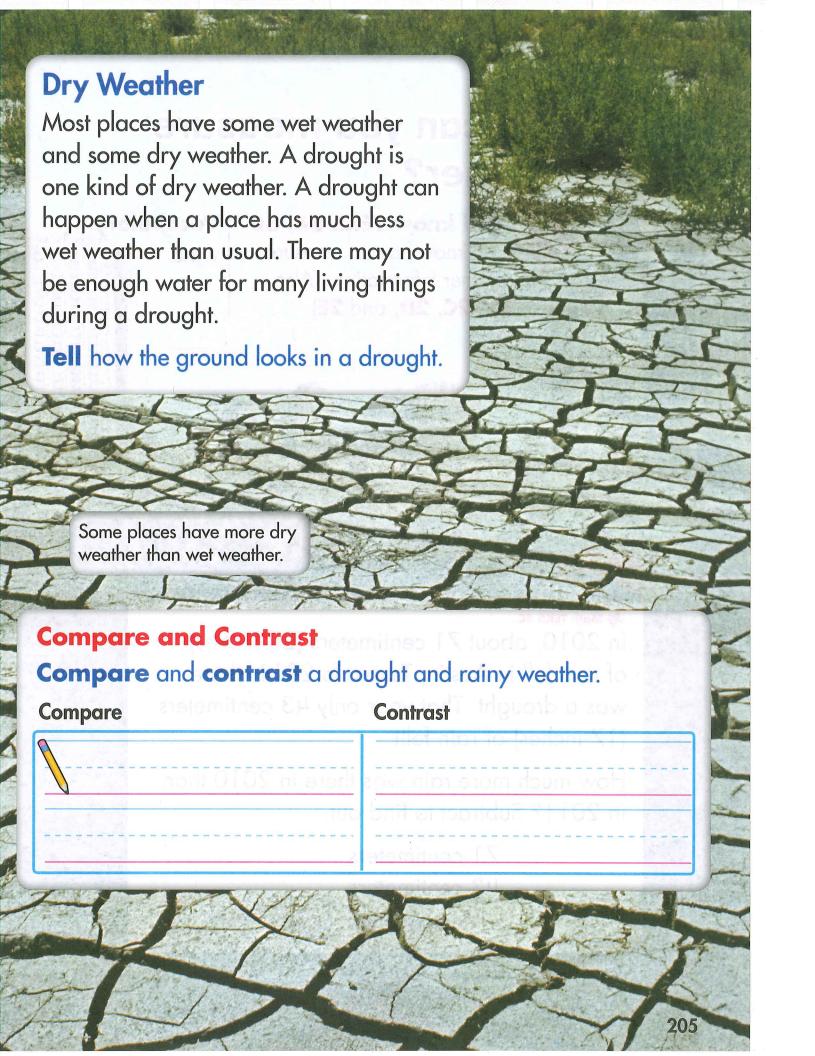
Weather Forecast















TEKS 8A, 1A, 2B, 2C, 2D

How much rain falls?

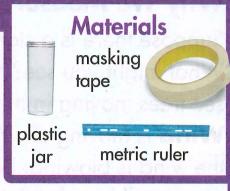
Make a rain gauge.

- 1. Make 12 lines 1 cm apart on a piece of tape.
- **2.** Number the lines.
- ☐ 3. Fasten the tape to the jar.
- **4.** Make a plan to **observe** your rain gauge.

Explain Your Results

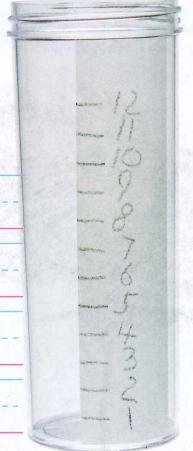
5. Communicate How could you use your rain gauge to find how much rain falls?

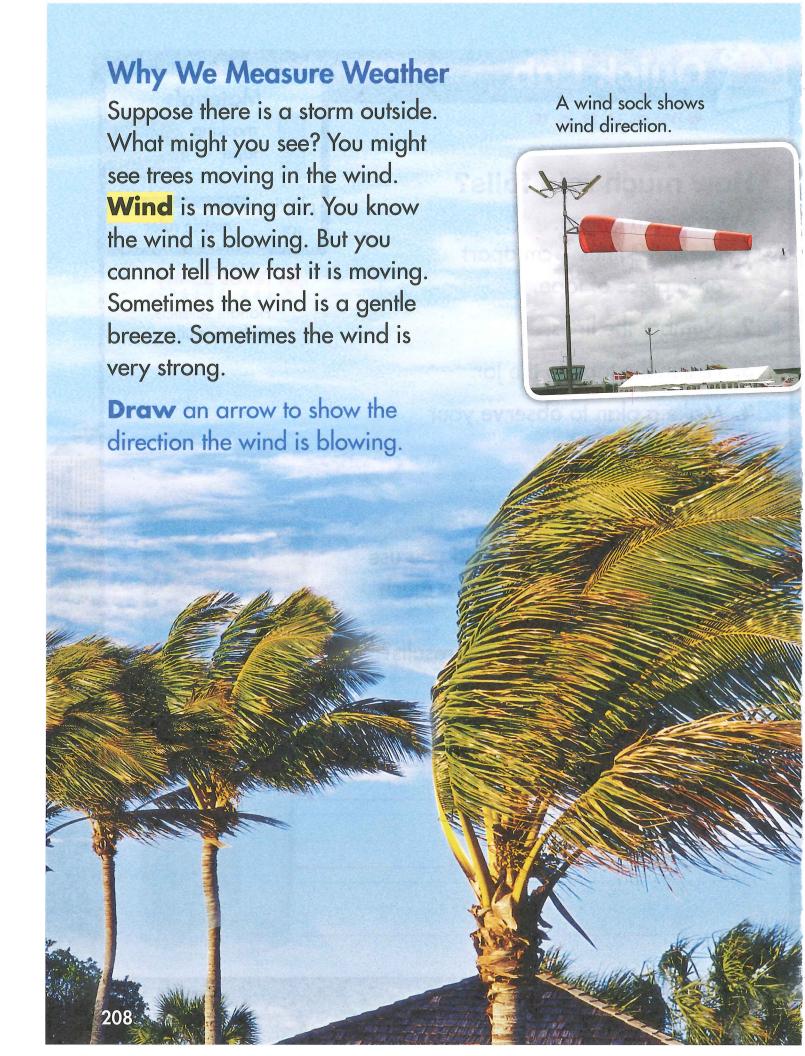
Where will you record the results?





tools carefully.

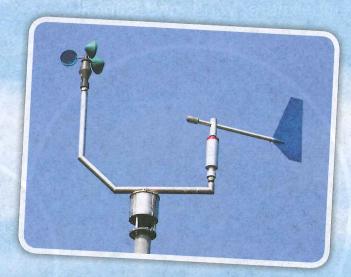






The flag is blowing in the wind.

Scientists use anemometers to measure wind speed.



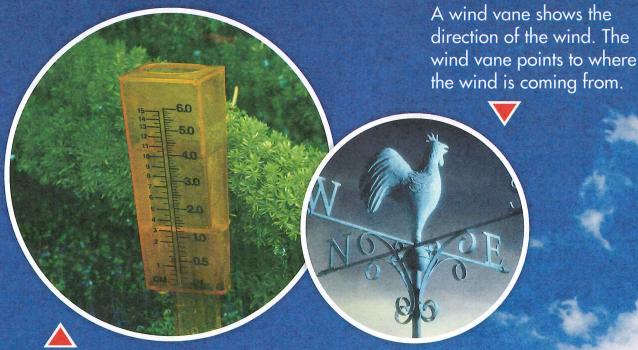
Scientists measure weather for many different reasons. Sometimes they measure weather to warn people about storms. During storms, winds can be powerful. An anemometer is a tool that measures the speed of wind. It helps scientists know when winds are dangerous.

Tell what kind of weather the large picture on pages 208–209 shows.

Read the paragraph again. **Underline** the sentence that tells the main idea.

Tools for Measuring Weather

Tools help scientists study weather. Scientists use tools to measure temperature, wind, and rainfall.



A rain gauge measures how much rain has fallen. Raindrops fall into the gauge. Numbers tell the amount of rain in inches and centimeters.

A thermometer measures temperature. This thermometer shows the temperature in degrees Celsius and Fahrenheit.

What temperature is shown on the thermometer?



Predict Weather

Scientists gather weather information over many years. They study the data and look for patterns. They learn what the weather of a place might be like at different times. They use this information to predict weather.

The graph shows rainfall for Dallas/ Fort Worth, Texas. It tells how much rain fell in May over three years.

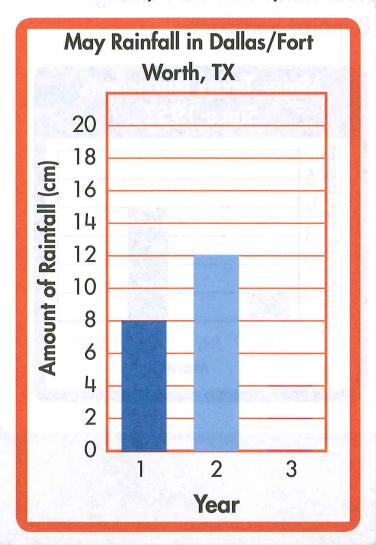




Chart the Cloud Coverage

Chart how cloudy it is every day for a week. Look at the weather forecasts in a newspaper or on television or the Internet. Record your observations and the predictions. Then compare what you see with the predictions.

TEKS 8A, 3E

Draw a bar on the graph to show that it rained 6 centimeters in Year 3.

Tell which year had the most rainfall. How much fell?



How does weather change?



I will know TEKS 8B

I will know that weather pattern follows a pattern. (Also 8A, 2C, and 3B)

Vocabulary

They use this information

Connect to

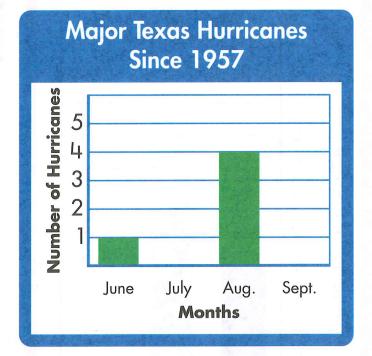
Math

Math TEKS 10A, 10D

A hurricane is a tropical storm with very strong winds. Since 1957, 8 major hurricanes

have hit Texas.

Draw a bar on the graph to show 3 hurricanes in September. Circle the month with the most major hurricanes.





TEKS 8A, 1A, 2C, 2D, 2E, 3B, 4A

Are morning and afternoon temperatures different?

1. You will measure morning and afternoon temperatures. Predict whether mornings will be cooler or warmer than afternoons. Write your prediction.







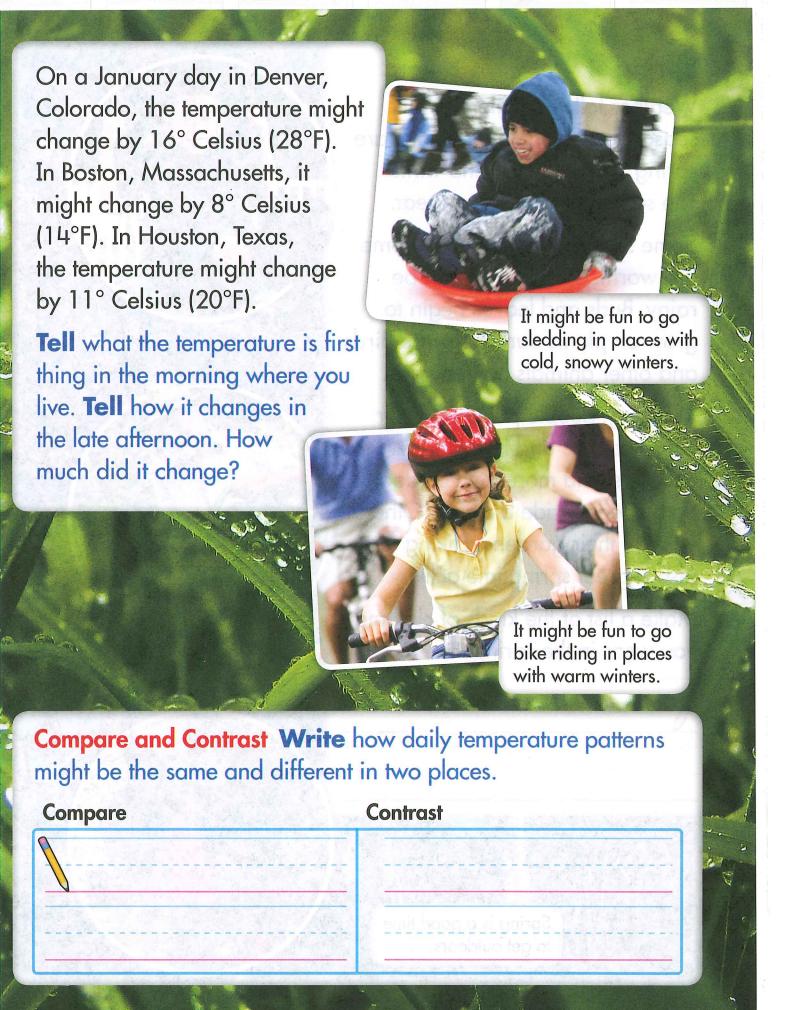
2. Measure and record the outdoor temperature every morning and afternoon for a week. Always measure the temperature at the same time.

Morning and Afternoon Temperatures								
	Monday	Tuesday	Wednesday	Thursday	Friday			
Morning Temperature								
Afternoon Temperature								

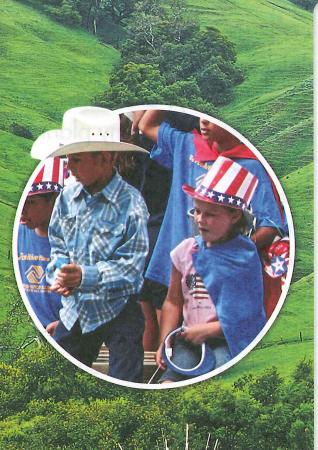
Explain Your Results

3. Communicate Was your prediction correct? Does your data show a pattern for morning and afternoon temperatures?











On the Fourth of July, people enjoy parades and fireworks.

Summer

Summer comes after spring.

Some summer days are hot. The nights are often warm. Trees and other plants have lots of green leaves. Flowers bloom and many fruits and vegetables grow.

Some people go to the park in the summer. You can see people wearing shorts, T-shirts, and sandals. You might see children playing baseball. Families have barbecues. Many people enjoy picnics and swimming in the summer.

Compare and Contrast Tell how temperature and precipitation in spring and summer are different where you live.







Severe Storms

Texas can have some very severe weather. Summer and fall are hurricane season. That's when hurricanes are most likely to occur. A huge hurricane hit Galveston, Texas, in September 1900. Winds gusted at more than 190 kilometers per hour (118 miles per hour). A storm wave flooded the city. Much of Galveston was destroyed. Almost 110 years later, another hurricane flooded much of Galveston again.

Galveston is on the Texas coast of the Gulf of Mexico. Why might Galveston's location put it in the path of hurricanes?

In 2008, a hurricane once again flooded

Galveston.

Galveston after the

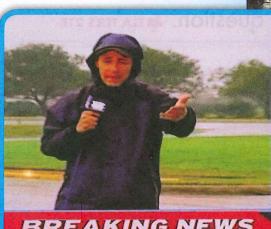
hurricane in 1900.

Science Read Together

Meteorologists

Meteorologists study the weather. They use weather tools such as thermometers and anemometers. They use satellite photos too. They study the information and make predictions about the weather. They can predict sunny days or stormy weather. They can track storms and warn people about them. They

provide weather reports for television, radio, newspapers, and the Internet.



BREAKING NEWS

HURRICANE Category 2 Winds: 100 mph ocation: 37 mile Houston LIVE

Why is a meteorologist's job important?



What is the water cycle?



I will know TEKS 8C

I will know how the water cycle works. (Also 2B, 2E)

Vocabulary water cycle

Connect to Reading

It rained so hard last night! Today there are still puddles everywhere. What do you think will happen to the puddles? Write a sentence to answer the question. •• ELA TEKS 21B

ny is a meleorologist's job important?





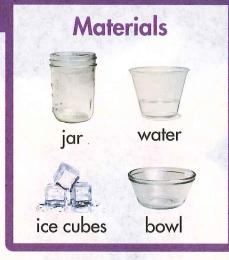
TEKS 8C, 1A, 2B, 2E

What happens during the water cycle?

- 1. Fill the jar halfway with water.
 Cover it with the bowl.
- 2. Place the jar near a window.
 Wait 5 minutes. Observe the jar, and record your observations.
- 23. Put ice cubes in the bowl. Wait 5 minutes. Observe the jar and bowl, and record your observations.

Explain Your Results

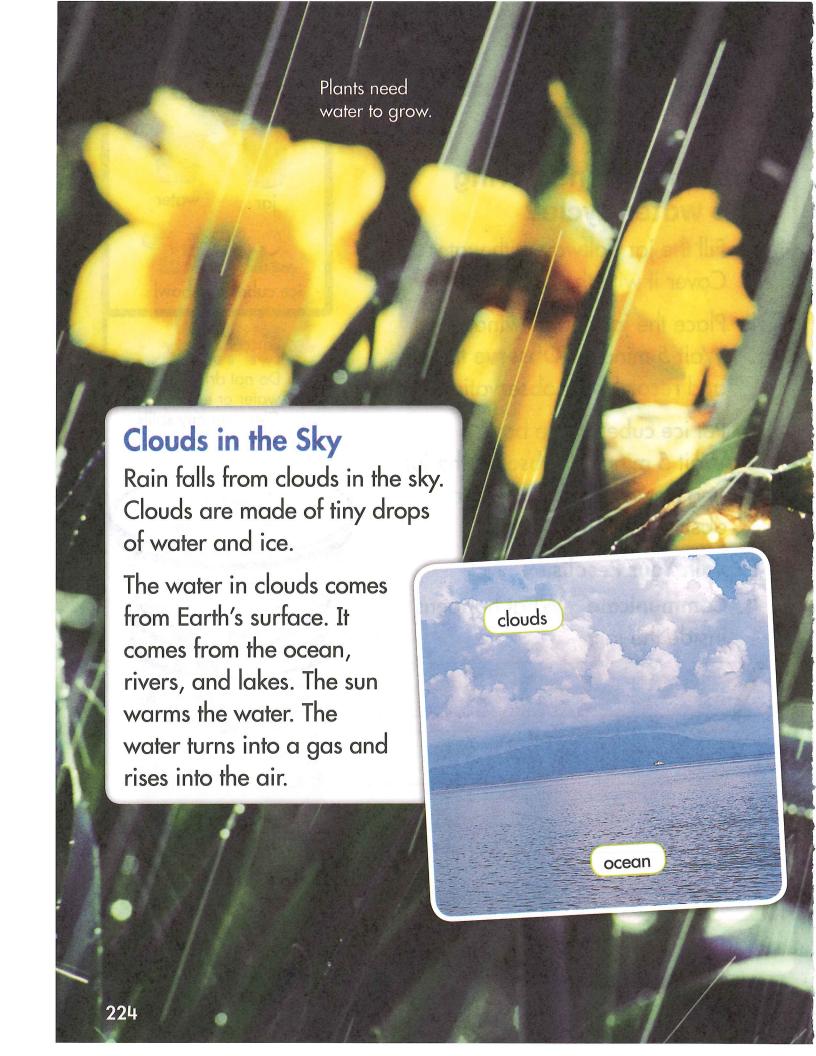
4. Communicate What happens inside the jar?





Do not drink the water or eat the ice. Clean up any spills.







The Water Cycle

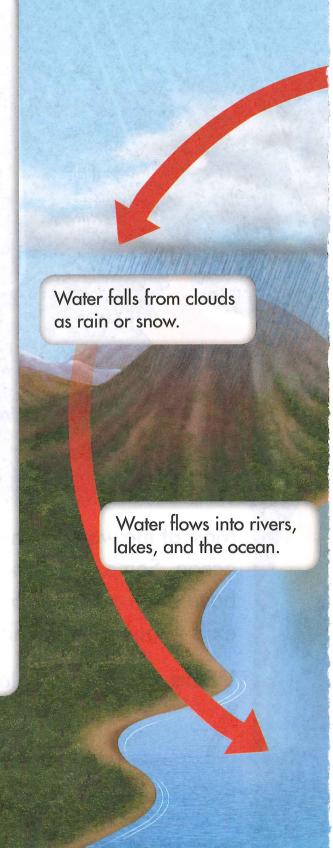
The way water moves from Earth to the clouds and back to Earth again is called the **water cycle.**

The sun warms the water on Earth. Some of the water evaporates, or changes into a gas. The gas is called water vapor. Water vapor rises into the air.

Water vapor in the air condenses when it gets cold. Condense means to change from a gas into a liquid. Water vapor changes into tiny drops of water. These drops form clouds.

Water falls from clouds. It flows into rivers, lakes, and the ocean. The sun warms the water, and the water cycle begins again.

Tell why the sun is important to the water cycle.



Water vapor condenses and forms clouds.

Water changes into water vapor. The water vapor rises into the air.



Measure Evaporation

Use a paper cup and water. Plan an activity that shows evaporation. TEKS 8C, 2B



What are the moon and the stars?



I will know TEKS 8D

I will know how to observe and describe the moon and the stars. (Also 2A, 2B, 2D, and 2E)

Vocabulary

star constellation crater phase



connect to

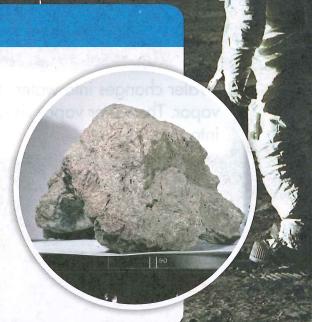
Social Studies



Social Studies TEKS 1B

Astronauts first went to the moon in 1969. They collected rocks and dust. Some moon rocks are stored at the Johnson Space Center in Houston, Texas.

Discuss why the Johnson Space Center would have moon rocks.





TEKS 2B, 2D, 2E, 8D

How does the shape of the moon appear to change?

- 1. Use a Moon Calendar.
- **2.** Observe the moon every night.
- 3. Record data by drawing pictures on the calendar.
- **4. Ask Questions** Write a question about your data.



Materials



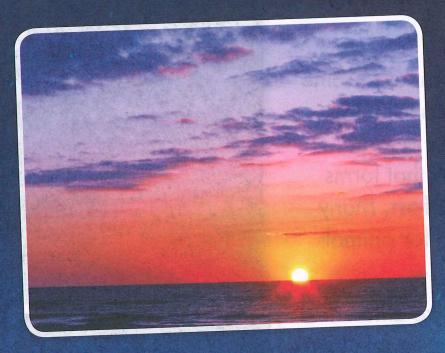
Explain Your Results

5. Communicate Describe how the moon appears to change.

The Night Sky

Your part of Earth faces away from the sun at night. You can see stars in the sky. A **star** is a ball of burning gases that gives off light and heat. The stars are different colors. A star's color depends on its temperature.

Stars shine in the night sky.



Did you know that the sun is a star?

Stars are different sizes. Most stars look small because they are so far away.

The moon is much smaller than a star. But the moon is closer to Earth. So the moon looks bigger in the night sky. You can see stars and the moon in the night sky.



Constellations

Long ago, people saw shapes in some groups of stars. They connected the stars with imaginary lines to form pictures. A group of stars that forms a picture is a **constellation**. Many constellations are named for animals or people.

Constellations can look like different things to different people. People long ago thought the constellation called Leo looked like a lion. What does it look like to you?





This constellation looks like a lion. It is called Leo.

This constellation looks like a hunter holding a club. It is called Orion.

The Moon

The moon looks like the biggest and brightest object in the night sky. The moon does not make its own light. It reflects light from the sun.

The moon is round like Earth. The moon is much smaller than Earth. The moon is made of rock. It has mountains and deep craters. A **crater** is a hole in the ground shaped like a bowl.

Describe the moon. **Draw** an X on a crater.

A crater forms when a large rock from space hits the moon.

Moon at Night

The moon moves in a path around Earth. It takes about four weeks for the moon to go once around Earth. The moon seems to change shape as it moves.

Sometimes the moon looks round. This is called a full moon. Sometimes you see smaller parts of the moon. Sometimes you cannot see the moon at all.



Sometimes you can see the moon during the day. However, it is harder to notice when the sun is out.

Look at the pictures of the moon.

Draw an X on the full moon.



Phases of the Moon

Why does the shape of the moon seem to change? Remember that the moon reflects light from the sun. You only see the part of the moon that has light shining on it. The shape of the lighted part of the moon is called a phase.

Write why the moon seems to change shape.



Observe the Big Dipper

People name groups of stars. One group is called the Big Dipper.
Go out at night with an adult. Find and observe the Big Dipper.
Tell why it is called the Big Dipper.



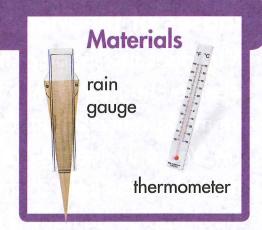
It takes about a month to see all of the phases of the moon.

TEKS 8A, 2B, 2C, 2D, 2E

What is your weather like?

Follow a Procedure

- 1. Put the weather tools outside.
- **2.** Check the tools at the same time each day for 5 days.
- 3. Observe the sky. Are there many clouds? What do they look like?



Inquiry Skill

Data you collect can be recorded in a chart.



Day of the Week	Rain (cm)	Clouds	Temperature (°C)
Monday			nixoW visit
Tuesday			
Wednesday		Modine Madi	
Thursday		Sebuje va, 17 s	to brittle from
Friday			
nalyze and Conclud		rainy.	
nalyze and Conclud		ainy.	
nalyze and Conclude Classify the days of		ainy.	nedral value de la companya de la co
nalyze and Conclude Classify the days of Rainy	is rainy or not i	stand the man	skies?
nalyze and Conclude Classify the days of Rainy Not Rainy	is rainy or not i	stand the man	skies?
nalyze and Conclude Classify the days of Rainy Not Rainy	ern between rai	n and cloudy	



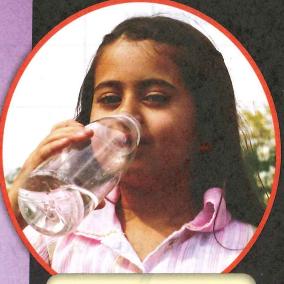
Water on the Moon

Is there water on Earth's moon?
NASA scientists sent a satellite to the moon to find out. They guided it to crash into a crater. Rock and other material shot up from the moon's surface. The scientists found signs of water in the material.

This is an important discovery.

It helps us understand the moon better. It may help future moon explorers too. People need water. But water is hard to carry into space. Finding water on the moon could solve the problem!

Write why water on the moon is an important discovery.



You need water.
People working on the moon need water too.



Vocabulary Smart Cards

constellation crater pattern phase precipitation star temperature water cycle wind

Play a Game!

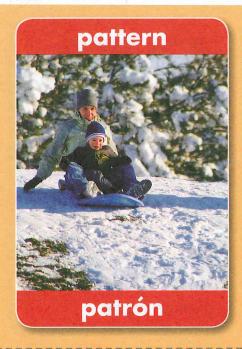
Cut out the cards.

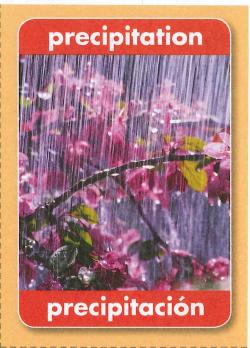
Work with a group.

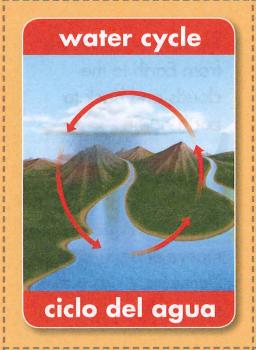
Pick a card.

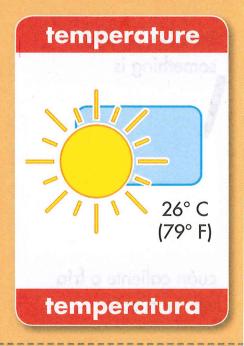
Tape a card to the back of each group member.

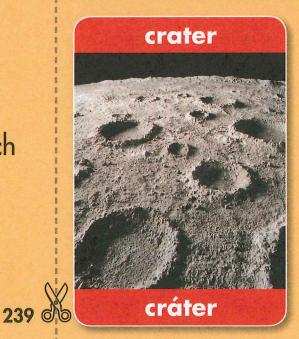
Have everyone guess his or her word.

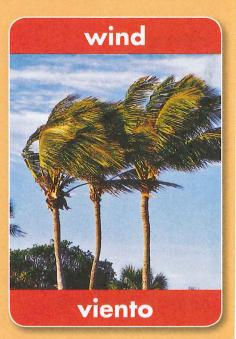




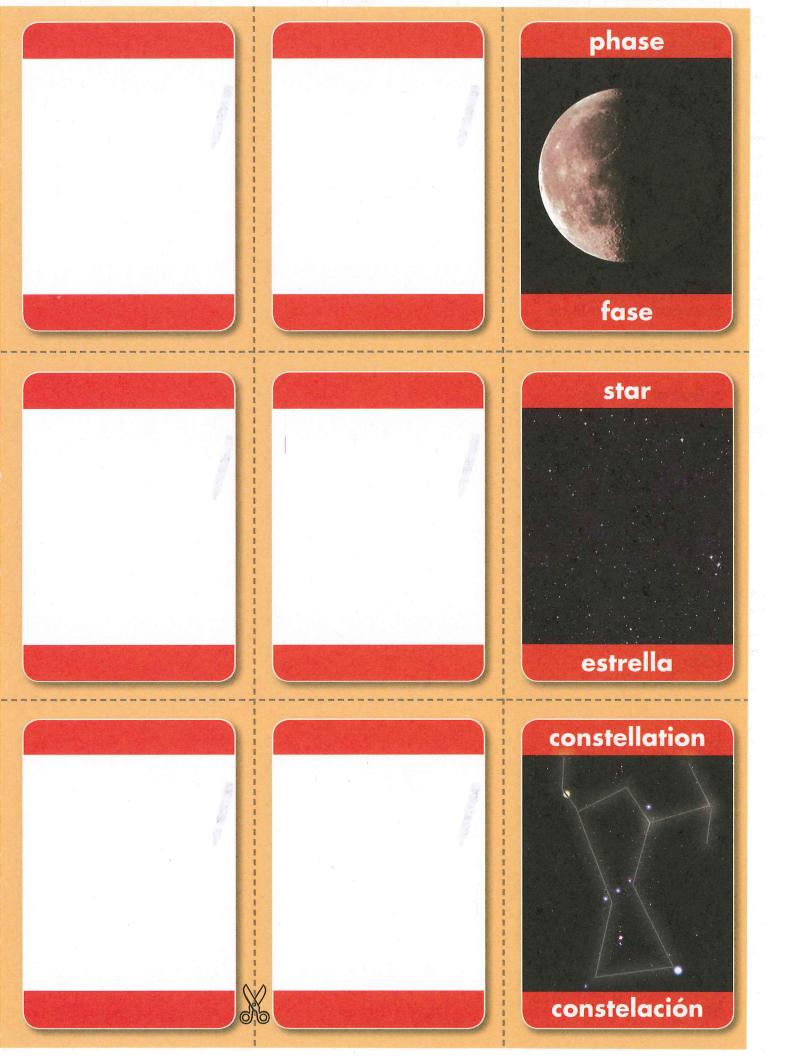


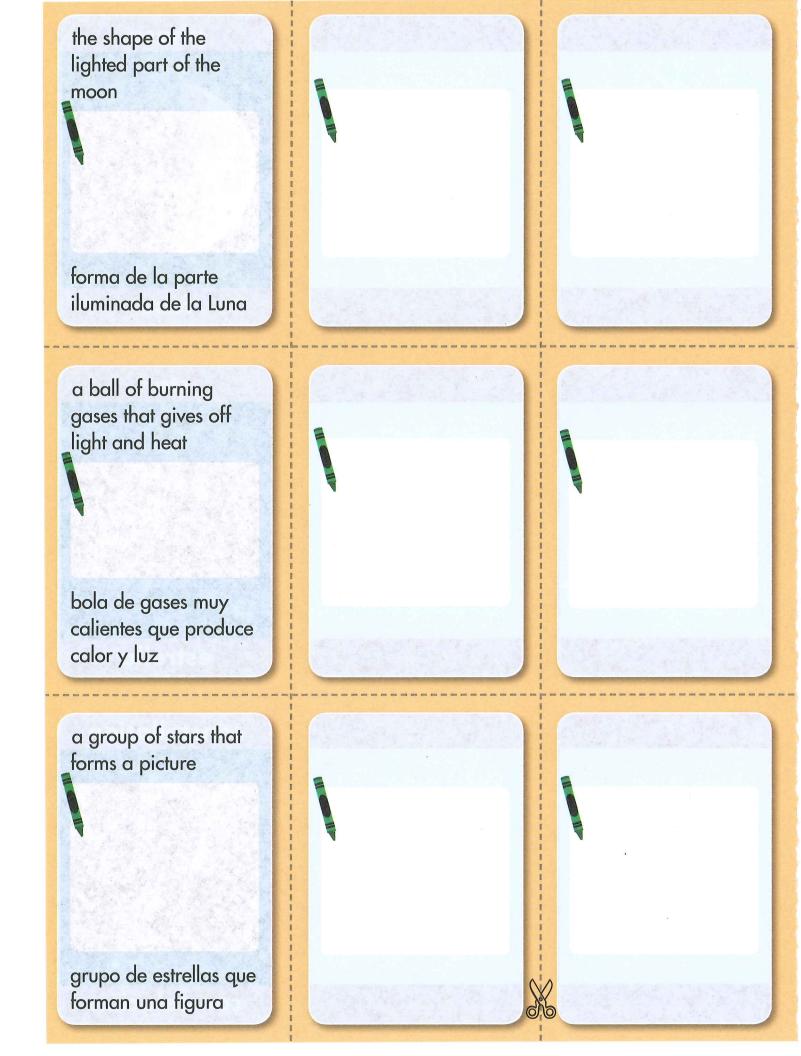






the water that falls to the way something Earth repeats itself el agua que cae a la la manera en que Tierra algo se repite how hot or cold the way water moves something is from Earth to the clouds and back to Earth again manera en que se mueve el agua de la cuán caliente o fría Tierra hacia las nubes y de nuevo a la Tierra está una cosa a hole in the ground moving air shaped like a bowl hueco con forma de tazón que se aire que se mueve encuentra en la tierra



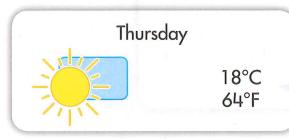


Texas Chapter 5

TEKS Practice

Lesson 1 TEKS 8A sint of goissim at took word vitosbi . C

1. Analyze Look at the weather information below from a Web site. Circle the day showing the highest temperature.





Lesson 2 TEKS 8A, 3B

2. Classify Draw an X on the tool that measures temperature.







Lesson 3 + TEKS 8B

3. Analyze What weather patterns do you notice where you live? How do these patterns affect what you wear?

Lesson 4 + TEKS 8C

4. Think about the water cycle. What happens to water vapor in the air when it gets cold? Circle the letter.

A It evaporates.

C It condenses.

B It melts.

D It boils.

TEKS Proctice





6. What part of the water cycle is shown in the photo?

Circle the letter.

- A precipitation
- **B** evaporation
- **C** condensation



Lesson 5 + TEKS 8D

7. Vocabulary Complete the sentence.

A group of stars that forms a picture is called a



244

TEKS Practice



Chapter 5

Lesson 1 How can you describe weather?



TEKS: 8A

Lesson 4 What is the water cycle?



TEKS: 8C

Lesson 2 How can you measure weather?



TEKS: 8A, 3B

Lesson 3 How does weather change?



Teks: 88

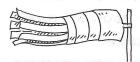
Lesson 5 What are the moon and the stars?



TEKS: 8D

Read each question and circle the best answer.

1 The picture shows a weather tool.



What can you learn from this tool?

- A The speed of the wind
- B The direction of the wind
- C The temperature of the wind
- D How much water vapor is in the wind

2 The picture shows a puddle.



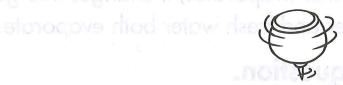
What will make this puddle evaporate?

- F Water from clouds
- **G** Water vapor in the air
- H Heat from the sun
- J Cold air



* TEKS Practice: Cumulative Review

3 Jada is grouping objects by the way they move. She observes the object in the picture.



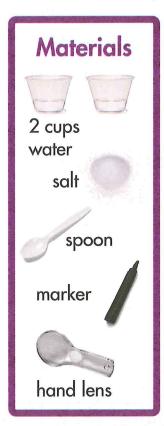
How should she record this object on her chart?

- Slides
- Rolls
- Spins C
- Bounces
- 4 Oscar fills a cup with water at room temperature. Then he puts the cup of water in the freezer. What change will Oscar see in the water the next day?
 - There is more water in the cup.
 - The water has melted.
 - The water has become a solid. H
 - The water has turned into new matter.

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

TEKS 8C, 1A, 2A, 2B, 2D, 3B

Does the salt in salt water evaporate?



When water evaporates, it changes into gas. Salt water and fresh water both evaporate.

Ask a question.

Does salt in water evaporate?

Make a prediction.

1. Will the salt in salt water evaporate?

Jan	Texa	IS	S	af	e	V
	Texa L A B	R	U	L	E S	
•	LAB	R	U	L	E S	

Do not taste the water. Clean up spills. Wash your hands.

Inquiry Skill

You collect data when you record what you observe.

Design your Investigation.
2. List your steps.
a thu bhait in a mhaire an an an an an a

D		Town and	•
DO A	your	Invest	igation.

✓ 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.

