## شكراً لتحميلك هذا الملف من موقع المناهج الإماراتية

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## حل الوحدة الرابعة الطقس Weather منهج انسباير



## التواصل الاجتماعي بحسب الصف الثالث

## روابط مواد الصف الثالث على تلغرام

| التربية الاسلامية | اللغة العربية | اللغة الانجليزية | الرياضيات |
|---|---|---|---|

## المزيد من الملفات بحسب الصف الثالث والمادة علوم في الفصل الثاني

| | |
|---|---|
| 1 | أسئلة الامتحان النهائي - انسباير |
| 2 | أسئلة الامتحان النهائي - بريدج |
| 3 | حل أسئلة الامتحان النهائي |
| 4 | أسئلة الامتحان النهائي |
| 5 | مراجعة عامة لصور الكتاب |

UNITED ARAB EMIRATES
MINISTRY OF EDUCATION

Grade 3 · Unit 4

Student Edition

# Inspire Science

UAE Edition
Grade 3
2021-2022

Mc Graw Hill

LESSON 1

# Weather Patterns

طقس

# What the air is like outside

sunny

windy

stormy

What's the **weather** like today?

partly cloudy

cloudy

rainy

snowy

Mostly sunny

Partly cloudy

Notebook

# Lesson- Weather pattern

**Lesson – Weather pattern**

**Identify the weather in Abudhabi**

**January 2023**

| | | |
|---|---|---|
| Mon 23 |  | |
| Tue 24 | | |
| Wed 25 |  | |
| Thu 26 | | |
| Fri 27 |  | |
| Sat 28 |  | |
| Sun 29 | | |

## Word box

Sunny

Rainy

Cloudy

Mostly sunny

Partly cloudy

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# Atmosphere

أجواء

It is a blanket of gases and dust that surrounds the earth.

Textbook

Page No: 5

When George woke up, there were dark clouds in the sky. On his way to school, it rained. When he walked home from school with his friends, the Sun was shining. There were white clouds in the sky. George and his friends had different ideas about the clouds.

This is what they said:

George: *I think the dark clouds are the only ones that contain water. When they get very dark, the water falls as rain.*

Kamila: *I think dark and white clouds contain water. Only the dark clouds release the water as rain.*

Jenna: *I don't think any clouds can hold water if the Sun is shining. White clouds do not contain water.*

Which friend do you agree with most? _____

Explain why you agree.

_____

_____

Textbook

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**GO ONLINE**

Check out *Moving Clouds* to see the phenomenon in action.

## Talk About It

Look at the picture and watch the video *Moving Clouds*. What kind of weather is the picture showing? What kind of weather will this place have next? Draw a picture to show your prediction.

Cloudy

Rainy

Textbook

Page No: 10

# Weather

**Weather** is what the air is like outside at a certain time and place. Even though you cannot see air, you can see it move things, such as leaves on trees. Weather changes from day to day. It can also change from hour to hour.

The air that surrounds Earth is part of the atmosphere. The **atmosphere** is a blanket of gases and tiny bits of dust that surround Earth. The atmosphere has several layers. Weather occurs in the layer closest to Earth.

## Temperature

When people describe weather, they describe the condition of the sky. Some terms used are *sunny*, *cloudy*, *rainy*, and *stormy*. They also describe air and its **temperature**. Temperature is a measure of how hot or cold something is. A thermometer is a tool that measures temperature. The diagram on the next page shows how to read a thermometer. A higher temperature means it is getting warmer. When the temperature goes down, it gets colder.

| | | |
|---|---|---|
| Mon 23 | | Partly cloudy |
| Tue 24 | | Mostly sunny |
| Wed 25 |  | Partly cloudy |
| Thu 26 | | Rainy |
| Fri 27 | | Partly cloudy |
| Sat 28 | | Partly cloudy |
| Sun 29 | | Sunny |

The blanket of Earth made of gases and dust is called ---------

A Weather

B Atmosphere

# Temperature

It is a measure of how hot or cold something is.

# Thermometer

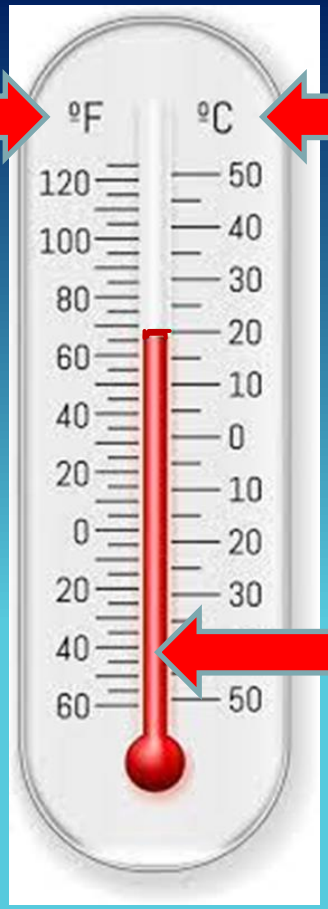
Tool used to measure temperature

# Unit of Temperature

Fahrenheit

Degree Celsius

°C




Liquid

# The unit of Temperature

A Thermometer

B Degree Celsius

Textbook

Page No: 8

# INQUIRY ACTIVITY

Data Analysis

## Predict Weather

You looked at a picture of changing weather. Investigate to discover how weather can be predicted. Explain how this happens.

**Make a Prediction** What kind of weather will the area to the east of your location have tomorrow?

Rainy

### Materials

current weather map

weekly weather report of your area

weekly weather report of location east of you

Textbook

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**Weekly Forecast**

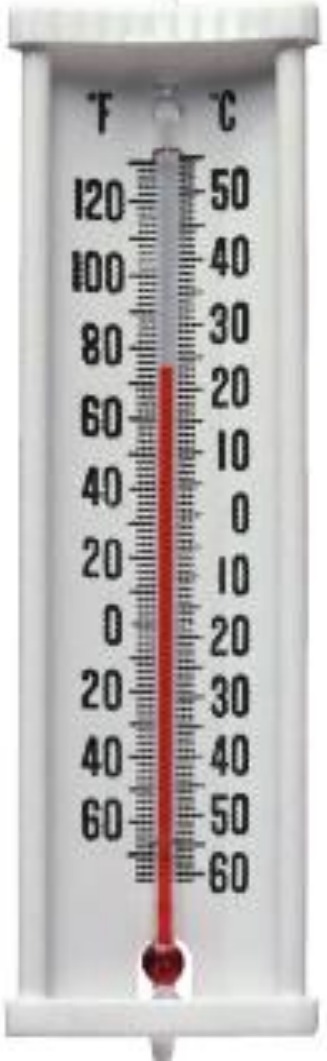
| Area | Day:___ | Day:___ | Day:___ | Day:___ | Day:___ |
|---|---|---|---|---|---|
| My Area: | Wed 23° C | Thu 20° C | Fri 21° C | Sat  21° C | Sun  22° C |
| Area to the East: | Wed 21° C | Thu 19° C | Fri 19° C | Sat  20° C | Sun  22° C |

Textbook

Page No: 11

1. **MATH Connection** The height of the red bar, inside the thermometer, shows the temperature of the surrounding air. Look at the diagram. What is the temperature in degrees Celsius?

24°C



Textbook

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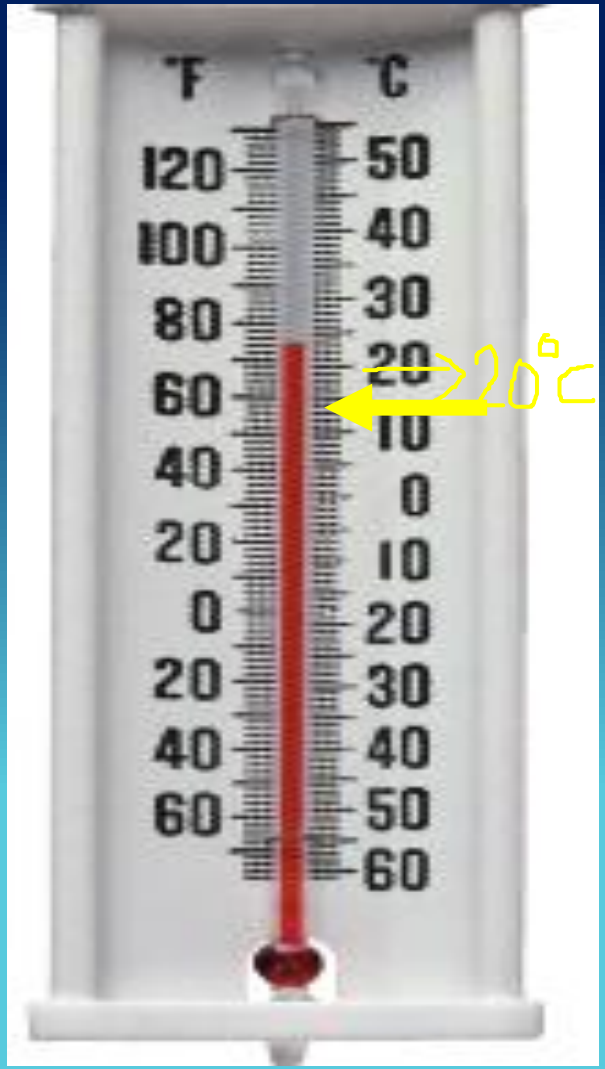
2. Place an arrow on the thermometer pointing to the temperature it is in your area today. Label the arrow. 20°C



Textbook

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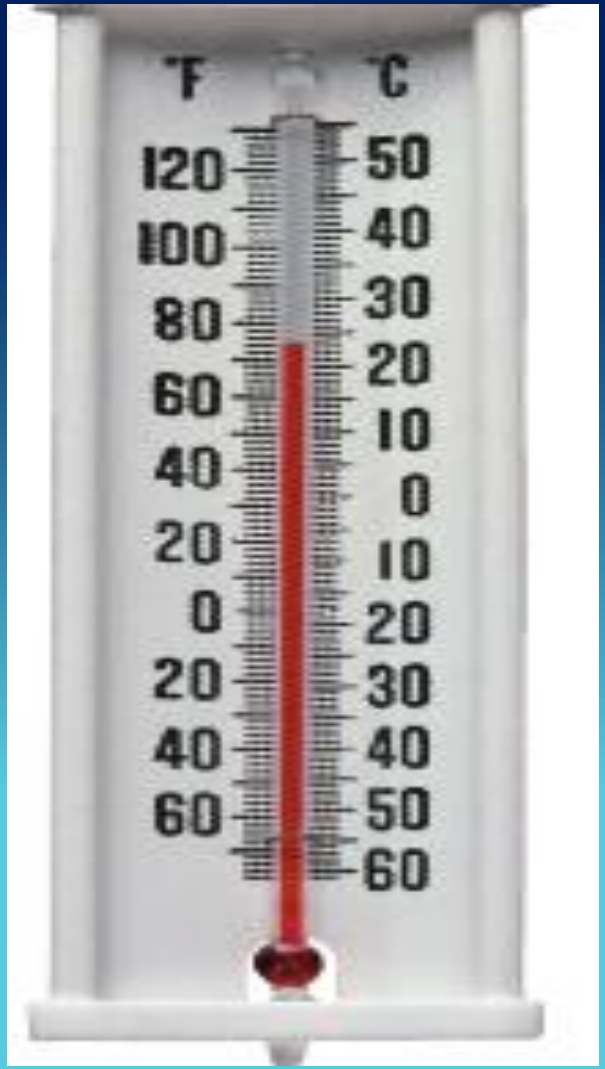
3. What kind of activities can you do in this temperature? What should you wear when you go outside?

Cycling

Woollen Jacket

4. Water usually freezes at 0°C. What is the temperature at which water freezes in Fahrenheit?



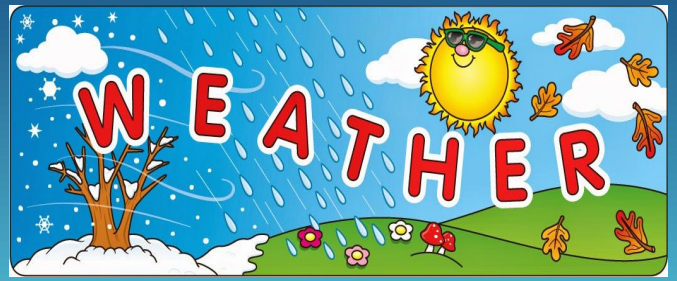
Textbook

Page No: 11

5. READING Connection What makes up Earth's atmosphere?

Atmosphere is made of gases and dust.

We can talk about weather by using




1.Air Temperature

2. Air Pressure

3.Precipitation

4.Wind

Vocabulary

Weather Tool

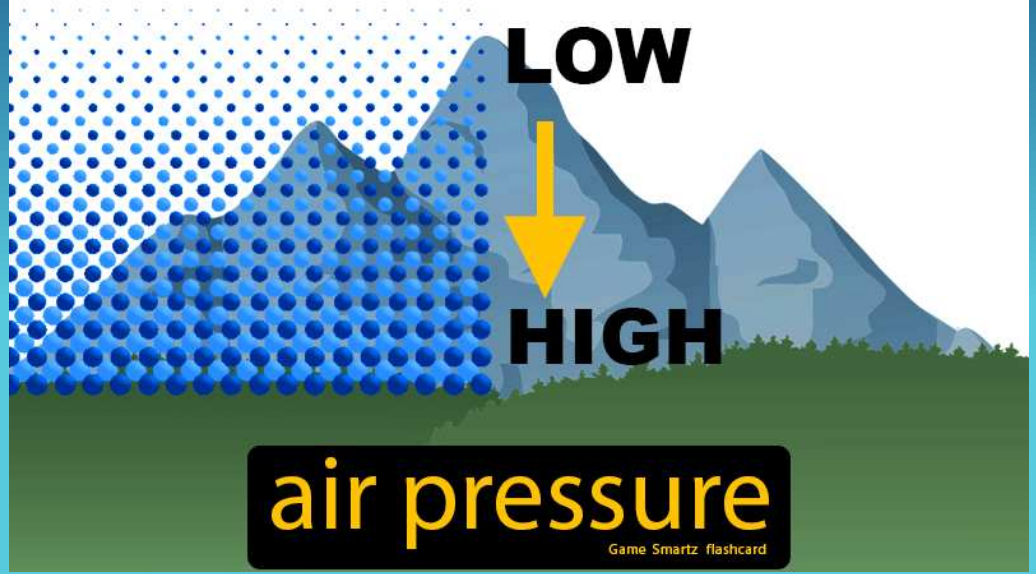
# 1.Air Temperature

## Thermometer

Vocabulary

# 2. Air Pressure

the weight of the air pressing down on a surface




Weather Tool

## Barometer

Vocabulary

Weather Tool

# 3.Precipitation

water that falls to Earth in any form - rain, snow, sleet, or hail

## Rain gauge

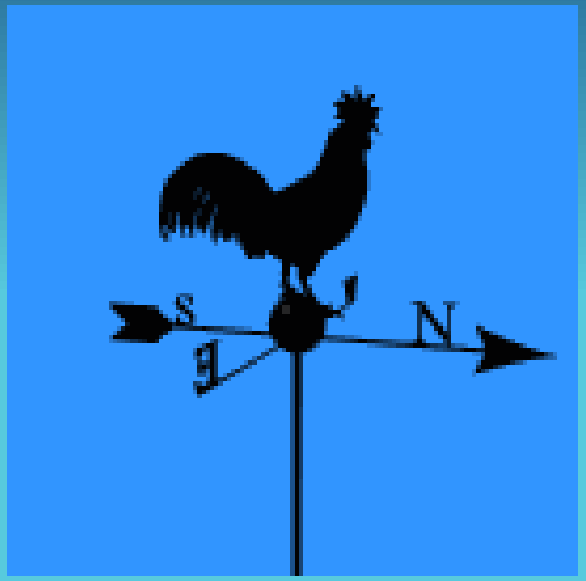
Vocabulary

# 4.Wind

Weather Tool

## Windvane

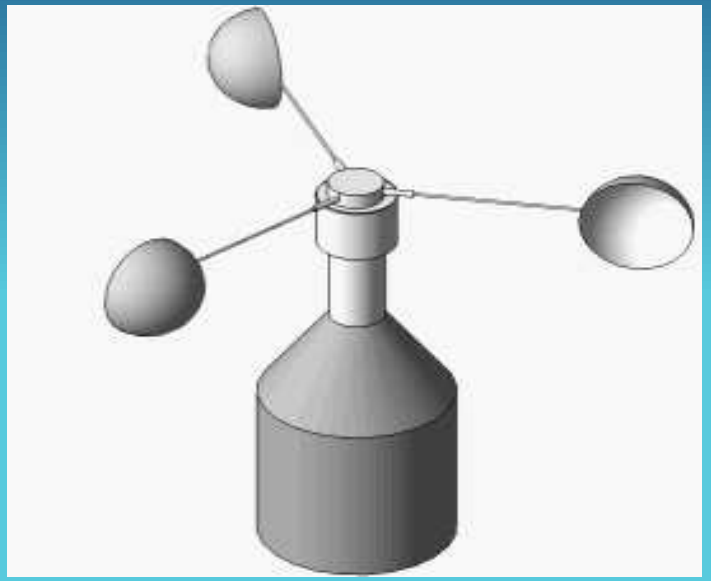
Direction of wind




Weather Tool

## Anemometer

Speed of wind



Textbook

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# Describing and Measuring Weather

Air temperature is one measurement of weather. Precipitation, wind, and air pressure also describe weather. When one of these factors changes, so does the weather.

**Precipitation** Precipitation is water that falls to the ground from clouds. Liquid rain is the most common type of precipitation. Precipitation falls as liquid rain when the air temperature is warmer than 0°C (32°F). A rain gauge is used to measure precipitation.

Sleet, snow, and hail are frozen precipitation. Sleet forms when rain falls through a layer of freezing-cold air. Snow is made of ice crystals. Hail forms when rain freezes and is tossed about in a tall cloud.

A rain gauge measures how much rain has fallen.

**Air Pressure** Air pressure is the force of air pressing down on Earth's surface. Weather reports often describe air pressure. Scientists use a tool called a barometer to measure air pressure.

**Wind** Wind is moving air. It is caused by differences in air pressure. Scientists measure how fast the wind is blowing with an anemometer. Because winds in the United States usually blow from west to east, the weather will usually move from west to east as well.

The arrow of a weather vane points into the wind.

**Book work**

**Page No:12**

Describing and Measuring Weather

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What is the relationship between wind and air pressure?

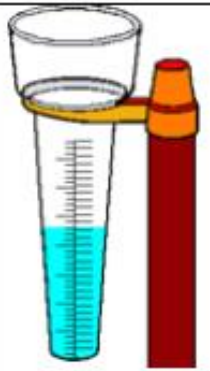
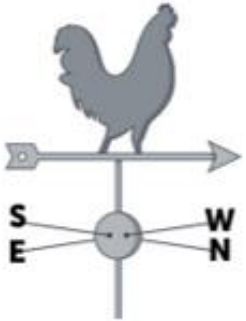
12 EXPLAIN Module: Weather Impacts

What is the relationship between wind and air pressure?

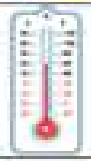
**Wind moves from high pressure area to low pressure area.**

12 EXPLAIN Module: Weather Impacts

# Weather Tools

| Air temperature | Air pressure | Precipitation | Wind direction | Wind speed |
|---|---|---|---|---|
| Thermometer | Barometer | Rain gauge | Wind vane (Weathervane) | Anemometer |
| | |  |  | |

Identify and write the name of the weather tools.

| No | Picture | Name of the weather tool |
|---|---|---|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 |  | |
| 5 | | |

| Help box |
|---|
| Thermometer |
| Anemometer |
| Rain gauge |
| Wind vane |
| Barometer |

Textbook

Page No: 13

# Predicting Weather

Knowing the weather helps people stay safe. Airplane pilots study the weather to find out if it is safe to take off and land in another area. Predictions of hurricanes can give people time to find shelter.

Scientists use many tools to predict the weather. For example, a weather balloon is a tool that is launched into the air. It carries devices that collect data about the atmosphere. A satellite is a tool that scientists put into space. It travels around Earth and collects data over very large areas. A satellite can spot storms over the ocean. Scientists then use other information about the atmosphere to predict where the storm will move next.

Weather balloons are used to gather data about weather.

Scientists use the data they collect and past information about an area to predict what the weather will be like in that area. They may look at what the weather is mostly like during a particular month or even a year.

Vocabulary

# Scientists use tools to predict weather

## Weather balloons

## Weather satellites

Textbook

Page No: 13

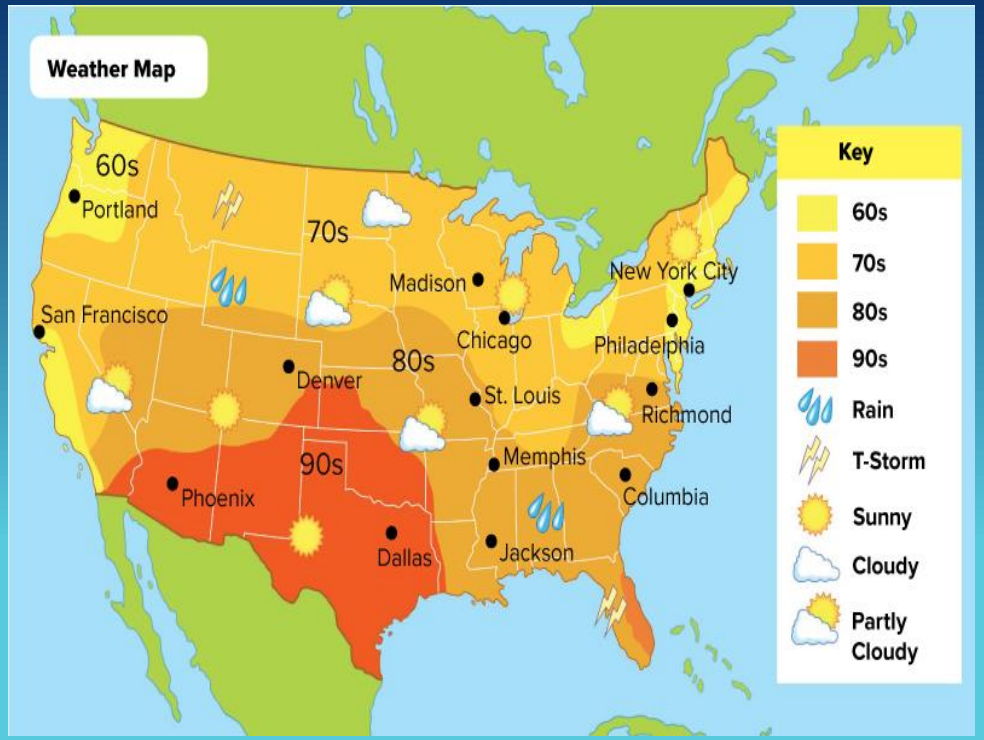
## Talk About It

What are some ways knowing weather predictions can help people plan their lives better?

It helps people
*what to wear,
*to stay safe and find shelter during severe weather.

# Weather Map

It shows the <u>temperature and precipitation</u> in an area.



Textbook

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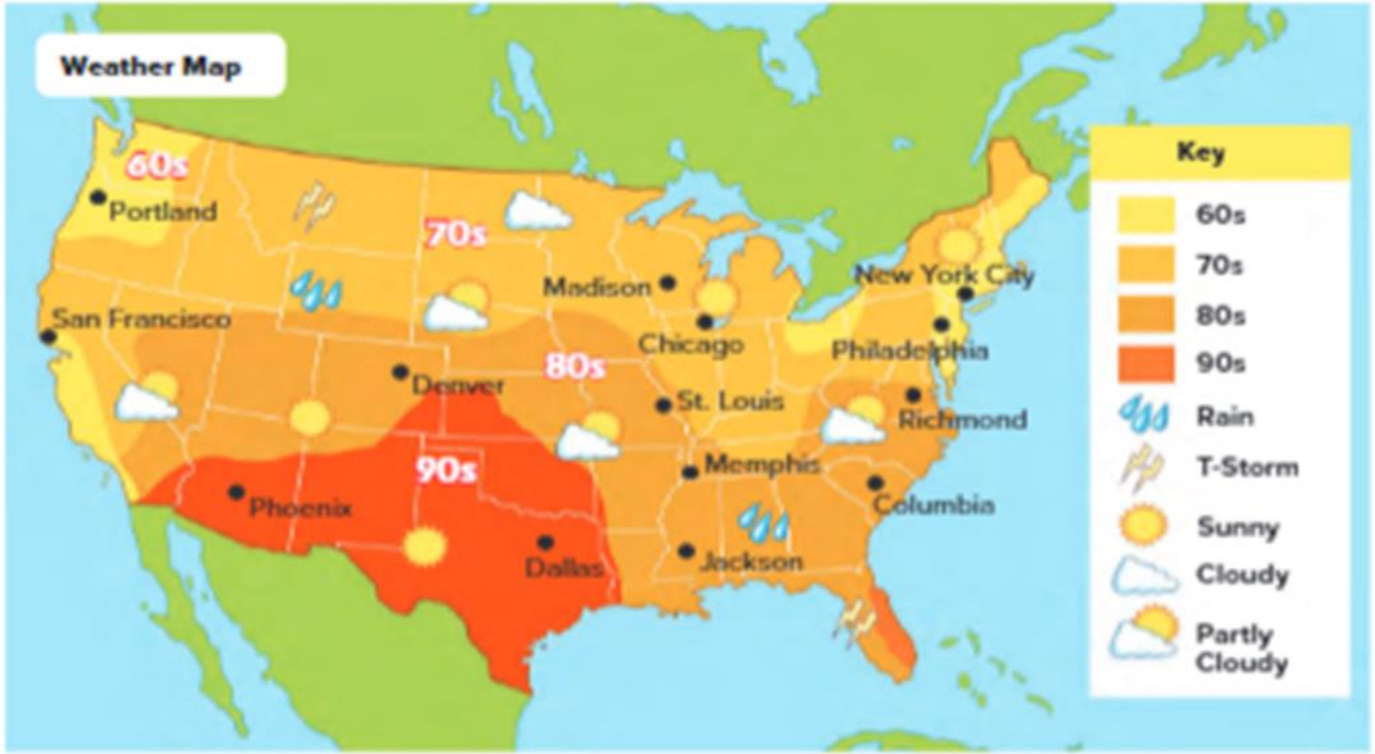
# Weather Map

A weather map lists the temperatures, precipitation, and other upcoming weather predictions over a large area. It may show the high temperatures for the day. It may show where it will be sunny.



Textbook

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**Read a Diagram** Look carefully at the key. The colors show areas where different high temperatures will occur. The symbols show the kind of weather different areas will have.

Look at the weather map. Name two cities that will have high temperatures in the 90s.

Phoenix and Dallas

Use the data. What will the weather be like in Chicago?

Sunny and warm

Textbook

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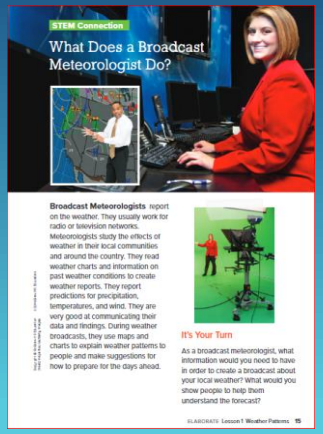
STEM Connection

What Does a Broadcast Meteorologist Do?

**Broadcast Meteorologists** report on the weather. They usually work for radio or television networks. Meteorologists study the effects of weather in their local communities and around the country. They read weather charts and information on past weather conditions to create weather reports. They report predictions for precipitation, temperatures, and wind. They are very good at communicating their data and findings. During weather broadcasts, they use maps and charts to explain weather patterns to people and make suggestions for how to prepare for the days ahead.

It's Your Turn

As a broadcast meteorologist, what information would you need to have in order to create a broadcast about your local weather? What would you show people to help them understand the forecast?

ELABORATE Lesson 1 Weather Patterns 15

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## It's Your Turn

As a broadcast meteorologist, what information would you need to have in order to create a broadcast about your local weather? What would you show people to help them understand the forecast?

Textbook

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## Communicate Information

3. Write your weather forecast.

GO ONLINE Explore *Patterns of Weather* to see how weather moves and changes.

Tomorrow will be --------.

The high temperature will be----.

The low temperature will be ----.

| Day | Conditions | | |
|---|---|---|---|
| | | Temperature | Weather |
| Tue 31 Jan | | 24 / 15 °C | Sunny. |
| Wed 1 Feb | | 26 / 18 °C | Mostly sunny. |
| Thu 2 Feb | | 26 / 18 °C | Sunny. |
| Fri 3 Feb | | 27 / 17 °C | Sunny. |
| Sat 4 Feb | | 26 / 17 °C | Afternoon clouds. |
| Sun 5 Feb | | 26 / 16 °C | Cloudy. |

odule: Weather Impacts

Textbook

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4. What patterns did you notice in the weather?

Low temperatures

Sunny days

Textbook

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LESSON 1

Review

EXPLAIN THE PHENOMENON

How is it sunny in one place and cloudy in another?

Summarize It

Explain how we can make predictions about weather in the United States.

REVISIT Revisit the Page Keeley Science Probe on page 5. Has your thinking changed? If so, explain how it has changed.

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another?

Summarize It

Explain how we can make predictions about weather in the United States.

Weather patterns helps us to know what weather will come next.

Page No:19

## Weekly Forecast for Dallas, Texas:

| Monday | Tuesday | Wednesday | Thursday | Friday |
|---|---|---|---|---|
| | | | | |

1. The weather map predicts that the high temperature in Dallas will be in the _____

   A. 60s  B. 70s

   C. 80s  D. 90s

2. What kind of weather conditions would you expect Dallas to have on Thursday?

Hot and partly cloudy