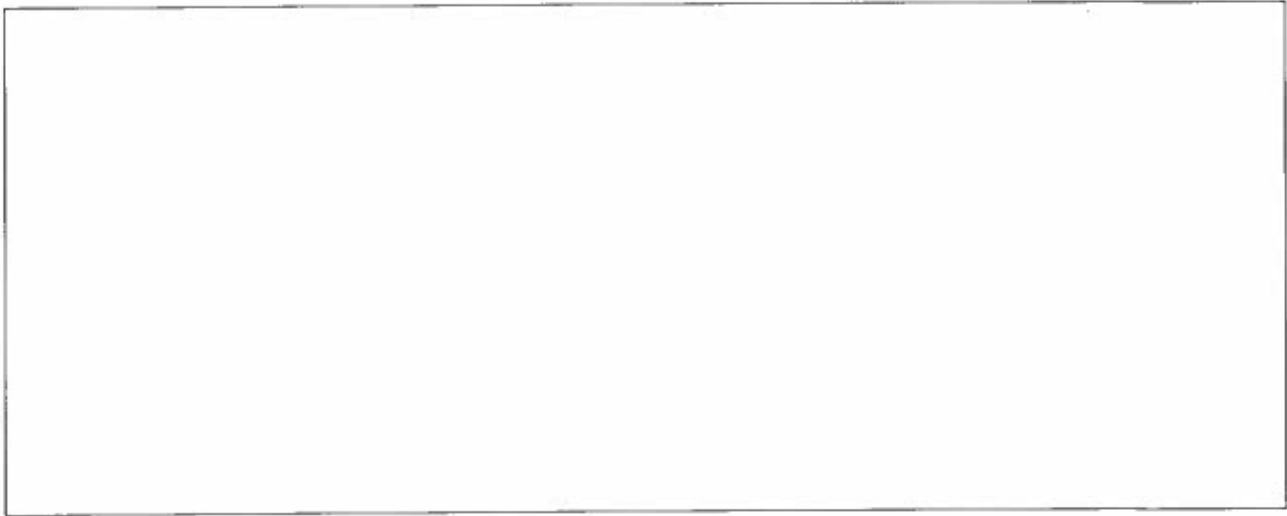




Draw a picture of the weather in Saskatoon today. What are people doing outside? What are they wearing?



What weather do you prefer? Explain why.

Communicate (page 172/173)

Describe a time when you had to change your plans because of the weather?

Why do you think people often check the forecast?

What are some ways you can collect information about the weather?

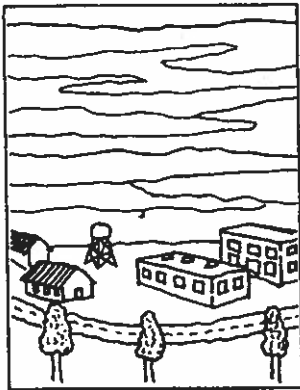
What are the advantages and disadvantages of Saskatchewan weather?

# Cloudy Days

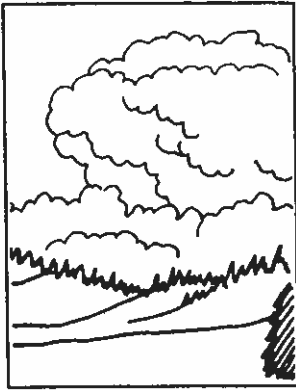
Name \_\_\_\_\_

Use one of the names to tell what each cloud is.  
Write the name below the cloud. Explain why underneath.

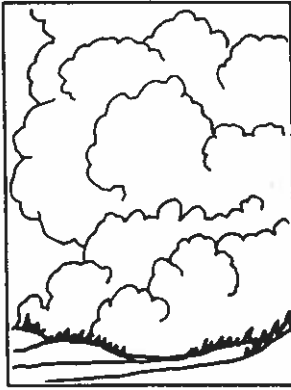
cumulus      cirrus      stratus



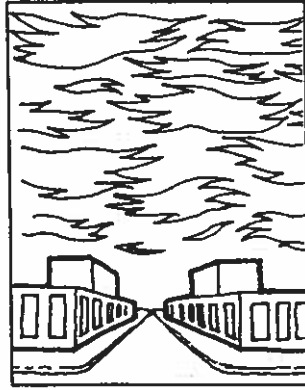
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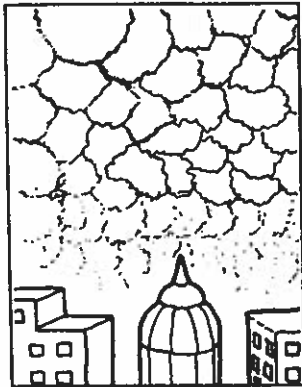
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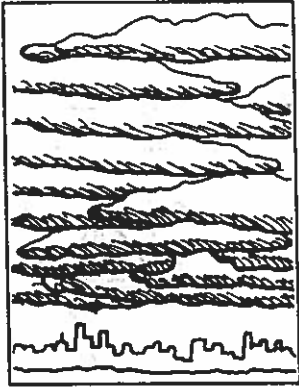
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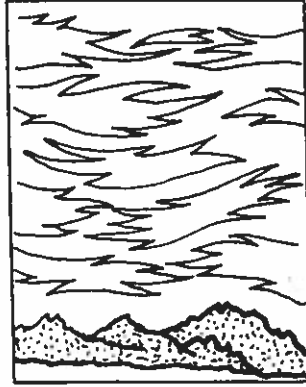
\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_

## Label the Clouds

Label the clouds using the terms below.



**alto-cumulus** - Middle-level, medium-sized puffy clouds.

**alto-stratus** - Middle-level, layered clouds.

**cirro-cumulus** - High-altitude, small, wispy, patchy, puffy clouds.

**cirro-stratus** - High-altitude, thin, wispy clouds in layers.

**cirrus** - High-altitude, thin, wispy clouds.

**cumulo-nimbus** - Large, dense, towering clouds that cause thunderstorms.

**cumulus** - Low, puffy clouds.

**fog** - Ground-hugging clouds.

**nimbo-stratus** - Low, dark, rain cloud.

**stratus** - Low, layered, horizontal, wispy clouds with a flat base.

**strato-cumulus** - Low clouds, broad and flat on the bottom, puffy on top (higher than cumulus and lower than altocumulus).

### Other types of clouds:

**Mammatus clouds** are dark clouds shaped like sagging pouches. These clouds often appear after a tornado.

**Orographic clouds** are clouds that are formed as moist air rises over mountains or other major geographic features. The air floats up the side of the mountain and cools quickly, condensing and turning into a cloud.

A **pileus cloud** is a smooth cloud that is found over or on the top of a major geographic feature, like a mountain.

A **contrail** (short for **CONDensation TRAIL**) is a cloud-like vapor trail that forms behind some aircraft when flying in cold, clear, humid air. The contrail forms from the water vapor contained in the jet's engine exhaust.

# Watching Weather

Name \_\_\_\_\_

Write the starting date on the calendar.  
Pick the cards that show what it is like outside.  
Paste the cards in the boxes.

Month _____ Day _____ Year _____					
	Monday	Tuesday	Wednesday	Thursday	Friday
Temperature					
Wind					
Clouds					
Precipitation					



## Weather Reporting

Grade 4 students involved in a nation-wide project recorded the weather conditions each day for a week. Use the table to answer the questions below.

WEATHER DATA: SEPTEMBER 24-30					
Day	High Temperature	Low Temperature	Wind Speed (knots)	Precipitation	Conditions
Sunday	19°C	5°C	0-5	0	Sunny
Monday	20°C	7°C	0-5	0	Sunny
Tuesday	22°C	6°C	5-10	0	Cloudy
Wednesday	21°C	3°C	10-15	0	Partly Cloudy
Thursday	17°C	2°C	25-30	3 centimetres	Rainy
Friday	11°C	-1°C	20-25	.75 centimetre	Rainy
Saturday	11°C	0°C	10-15	0	Partly Cloudy

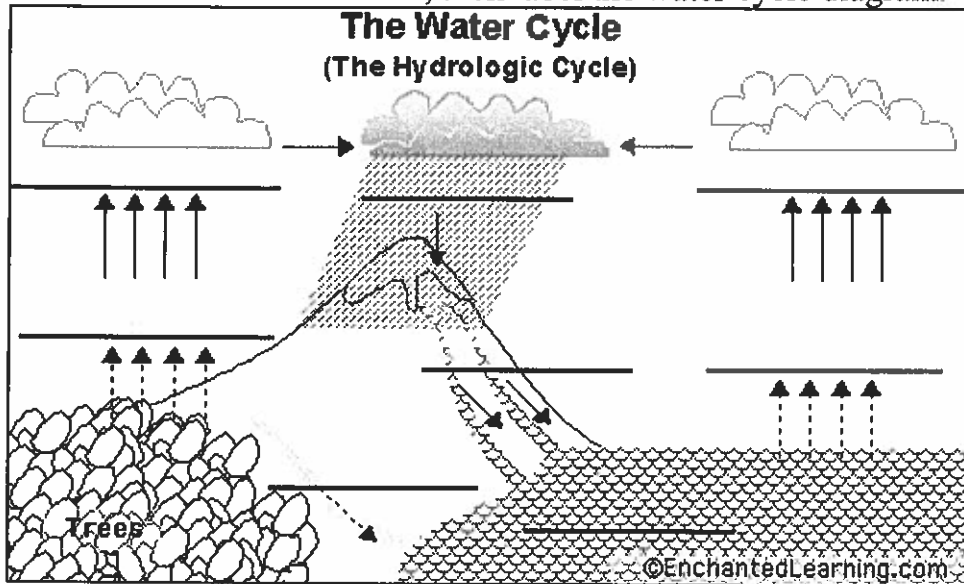
- 1 What were the high and low temperatures on Sunday?  
\_\_\_\_\_
- 2 Which day was warmest? \_\_\_\_\_
- 3 On which days did the temperature go as low as the freezing point of 0°C?  
\_\_\_\_\_
- 4 What were the weather conditions on Wednesday?  
\_\_\_\_\_
- 5 In all, how much rain fell during the week? \_\_\_\_\_
- 6 Write one or two sentences describing how the weather changed from Sunday to Saturday.  
\_\_\_\_\_  
\_\_\_\_\_

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# Label Water Cycle Diagram

Name \_\_\_\_\_

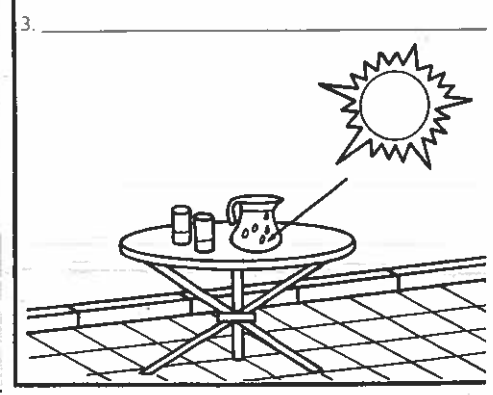
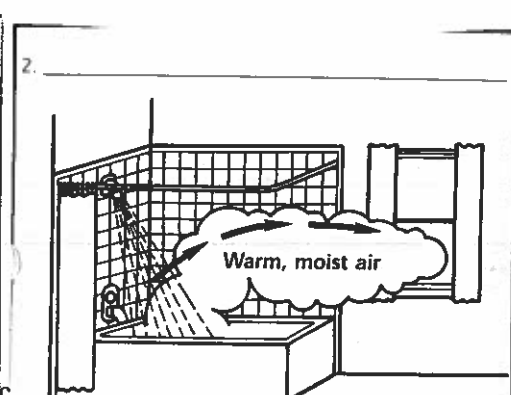
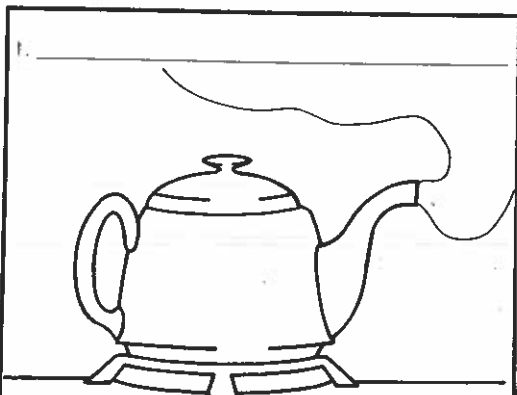
Read the definitions below, then label the water cycle diagram.



**Accumulation** - the process in which water pools in large bodies (like oceans, seas and lakes).  
**Condensation** - the process in which water vapor (a gas) in the air turns into liquid water. Condensing water forms clouds in the sky. Water drops that form on the outside of a glass of icy water are condensed water. (This term appears twice in the diagram.)  
**Evaporation** - the process in which liquid water becomes water vapor (a gas). Water vaporizes from the surfaces of oceans and lakes, from the surface of the land, and from melts in snow fields.  
**Precipitation** - the process in which water (in the form of rain, snow, sleet, or hail) falls from clouds in the sky.  
**Subsurface Runoff** - rain, snow melt, or other water that flows in underground streams, drains, or sewers.  
**Surface Runoff** - rain, snow melt, or other water that flows in surface streams, rivers, or canals.  
**Transpiration** - the process in which some water within plants evaporates into the atmosphere. Water is first absorbed by the plant's roots, then later exits by evaporating through pores in the plant.

WEATHER

## CAUSES OF EVAPORATION AND CONDENSATION



Name \_\_\_\_\_ Date \_\_\_\_\_

For the student:

1. What are some examples of the solid, liquid, and gaseous states of water?

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2. How does water enter the atmosphere?

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3. What are clouds?

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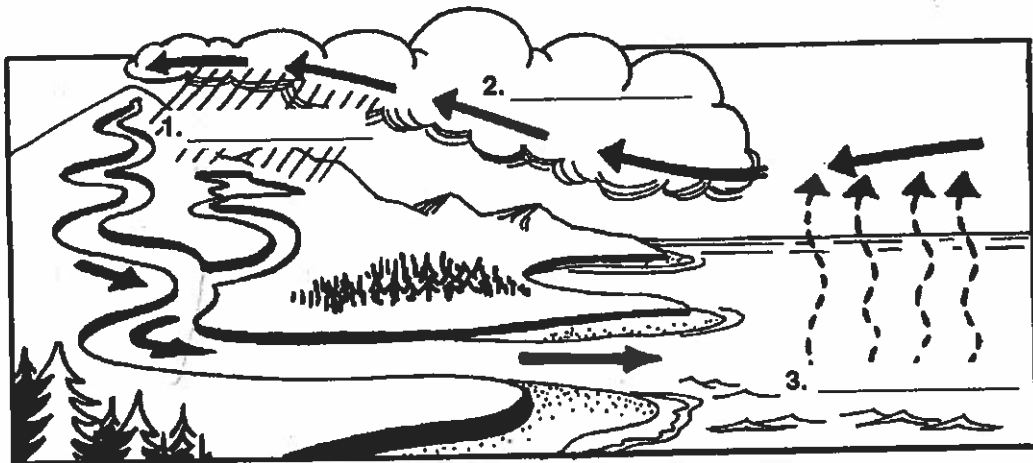
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4. What is precipitation?

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5. Using these terms, label the processes involved in the water cycle diagrammed below.  
precipitation                      evaporation                      condensation



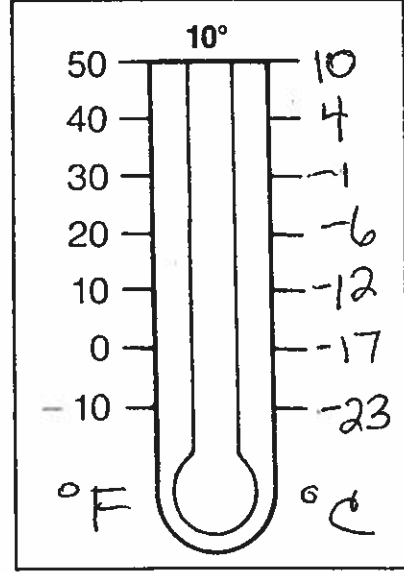
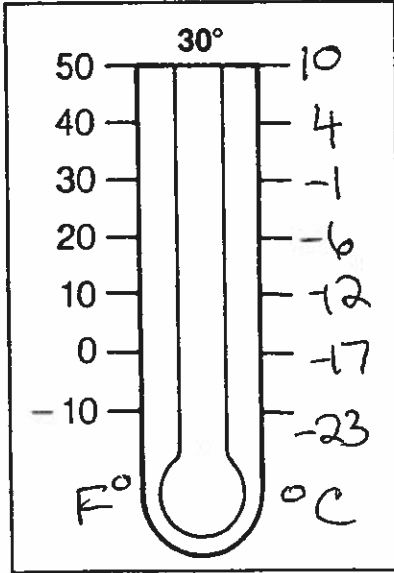
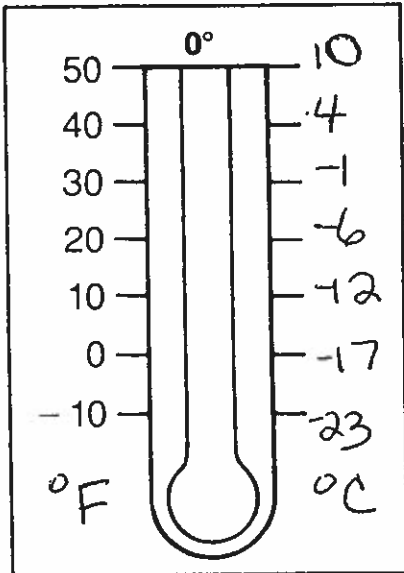
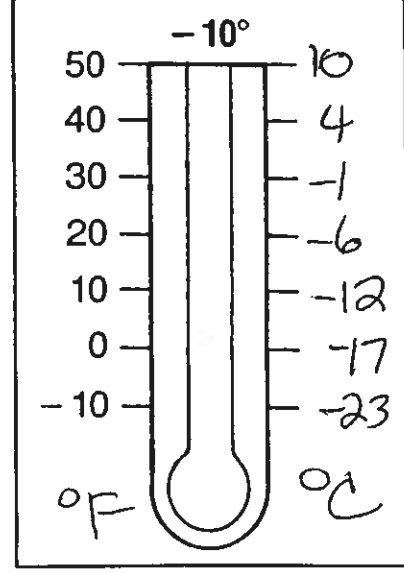
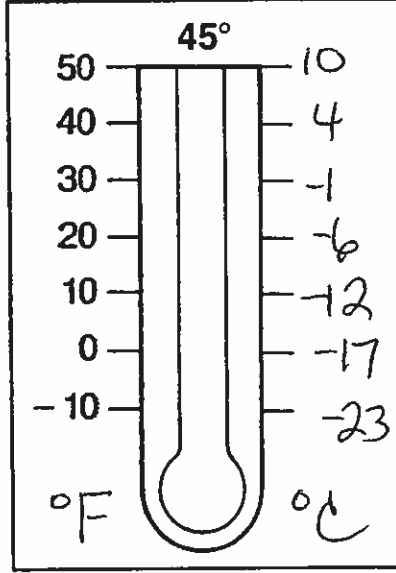
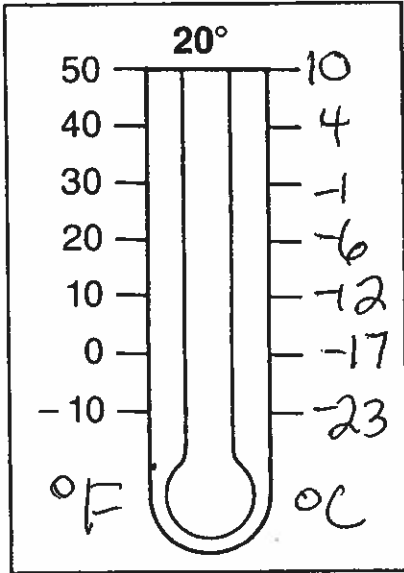


# Hot and Cold

Name \_\_\_\_\_

Look at the temperature above each thermometer.

Use a red crayon to mark the temperature on each thermometer.



Which is the coldest temperature? \_\_\_\_\_

Which is the hottest temperature? \_\_\_\_\_

Is the red line higher or lower when the temperature is hotter?

Is the red line higher or lower when the temperature is colder?

# #14c Worksheet PRECIPITATION AND TEMPERATURE

Examine the graph carefully then answer the following questions.

1. Which capital city only received 50 centimetres of rain? \_\_\_\_\_
2. Which capital city has the highest temperature? \_\_\_\_\_
3. Which capital city had the lowest range in temperature? \_\_\_\_\_
4. Which capital city receives the most rainfall? \_\_\_\_\_
5. Which city has the same range in temperature and annual rainfall? \_\_\_\_\_
6. Which two cities receive more than 125 centimetres of rainfall each year?  
\_\_\_\_\_
7. How many cities receive more than 75 centimetres of rainfall each year? \_\_\_\_\_  
List their names. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
8. Which cities receive less than 125 centimetres of rain each year?  
\_\_\_\_\_




## Community Climate

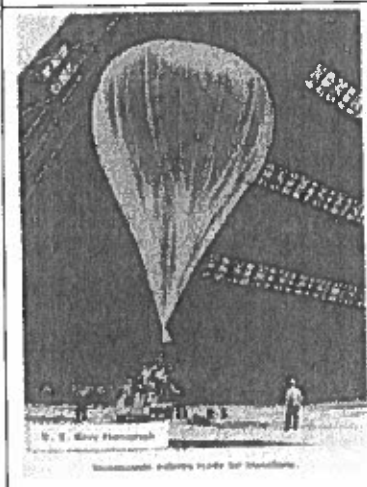
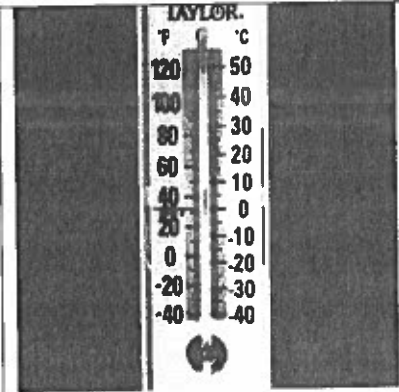
Find out the following things about your local community:

1. What is the average temperature in your community during the summer? \_\_\_\_\_
2. What is the average temperature in your community during the winter? \_\_\_\_\_
3. What is the average temperature in your community during the spring? \_\_\_\_\_
4. What is the average temperature in your community during autumn? \_\_\_\_\_
5. How many centimetres does your community receive in rainfall in a year? \_\_\_\_\_
6. How many centimetres does your community receive in snowfall in a year? \_\_\_\_\_
7. What is the highest temperature that your community has ever experienced during a summer? \_\_\_\_\_
8. What is the coldest temperature that your community has ever experienced during winter? \_\_\_\_\_

# Weather Tools

Name: \_\_\_\_\_

Images of Weather Tools	Name of equipment:	Uses:
		
 <p>THE SARTONIAN ANEMOMETER</p>		
 <p>BAROMETER</p>		



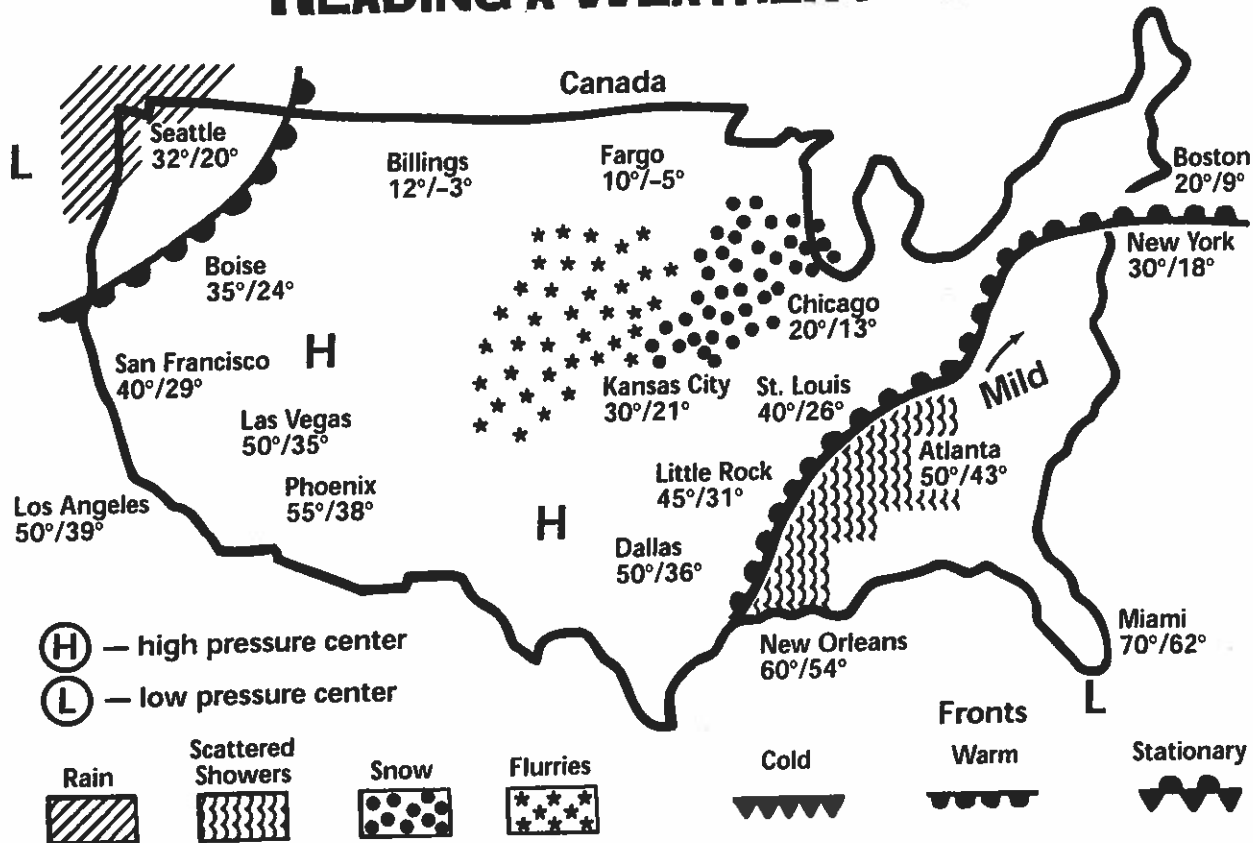
**Draw a hygrometer:**

Name \_\_\_\_\_

Date \_\_\_\_\_

**WEATHER**

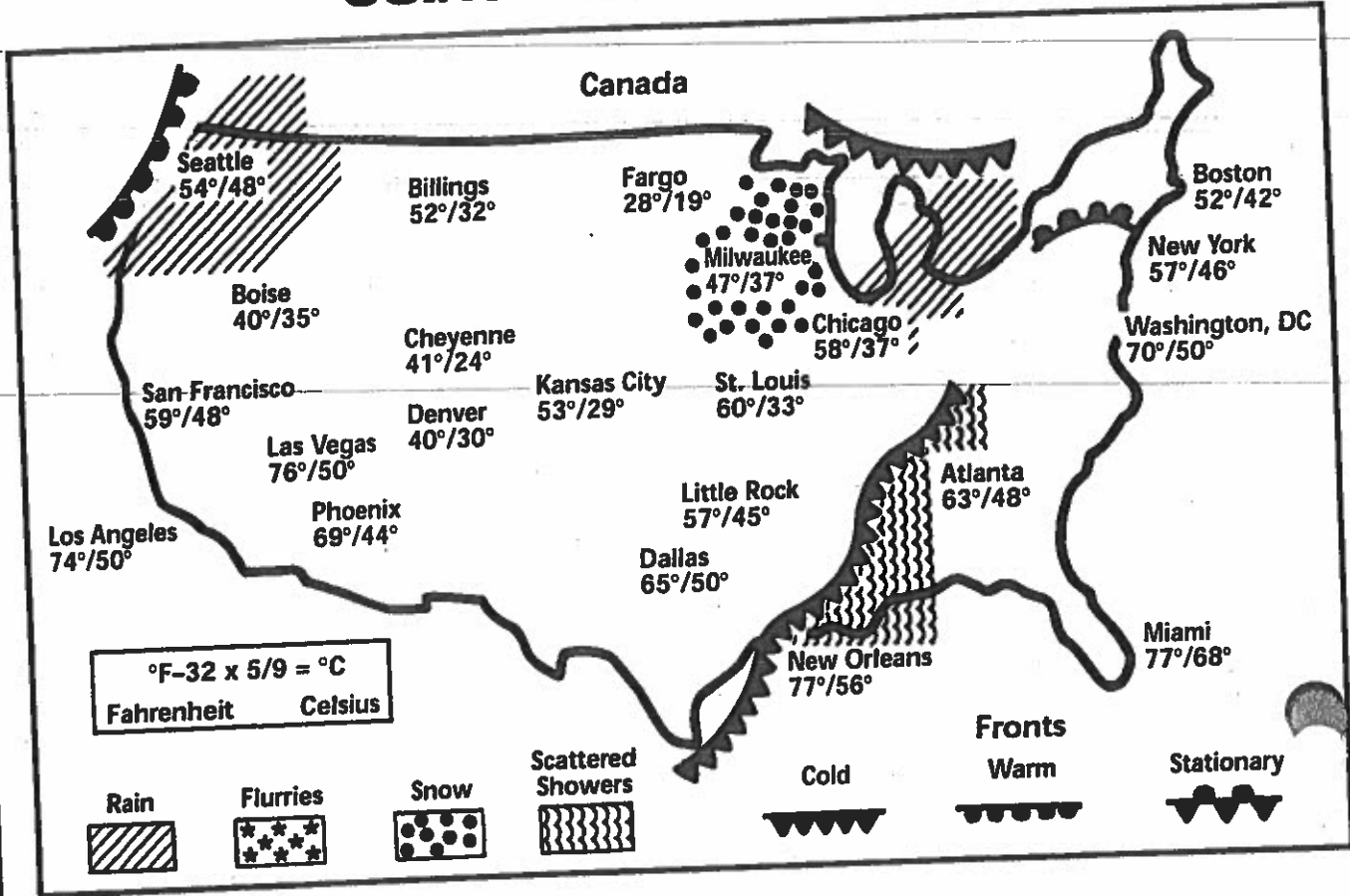
**READING A WEATHER MAP**



1. In what cities is it snowing? \_\_\_\_\_
2. What cities are near high pressure centers? \_\_\_\_\_
3. What type of weather is forecast for the southeastern area of the United States? \_\_\_\_\_
4. What kind of weather would you forecast for the midwest? \_\_\_\_\_
5. What type of weather is moving with the warm fronts? \_\_\_\_\_
6. Which city recorded the highest temperature? \_\_\_\_\_
7. Where is the lowest temperature found? \_\_\_\_\_
8. Where might the snow north of Kansas City have been two days ago? \_\_\_\_\_
9. Draw 2 symbols used on the weather map that indicate precipitation.
10. Draw the symbol used on the weather maps to indicate a cold front.

# WEATHER

## USING A WEATHER MAP



- Near what cities are the two warm fronts located? \_\_\_\_\_
- What type of weather is associated with these warm fronts? \_\_\_\_\_
- Draw the symbol used on the weather map to indicate a warm front. \_\_\_\_\_
- Draw the symbol used on the weather map to indicate rain. \_\_\_\_\_
- What kind of precipitation did the New Orleans area have? \_\_\_\_\_
- If you lived in Chicago, what type of weather might you expect in the next day or two? \_\_\_\_\_  
 \_\_\_\_\_
- What type of weather is moving with the cold front east of St. Louis and Little Rock? \_\_\_\_\_  
 \_\_\_\_\_
- Which city had the coldest temperature? What was it? \_\_\_\_\_
- Which two cities had the same high temperature? What was it? \_\_\_\_\_  
 \_\_\_\_\_
- What type of weather is Los Angeles having? \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

For the student:

1. What is air pressure?

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2. What are two factors that affect air pressure?

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3. Why would air pressure be greater at sea level than it would be on the top of a mountain?

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4. Would air pressure be greater at the South Pole or at the equator? Why?

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5. How does the force of air pressure move air particles?

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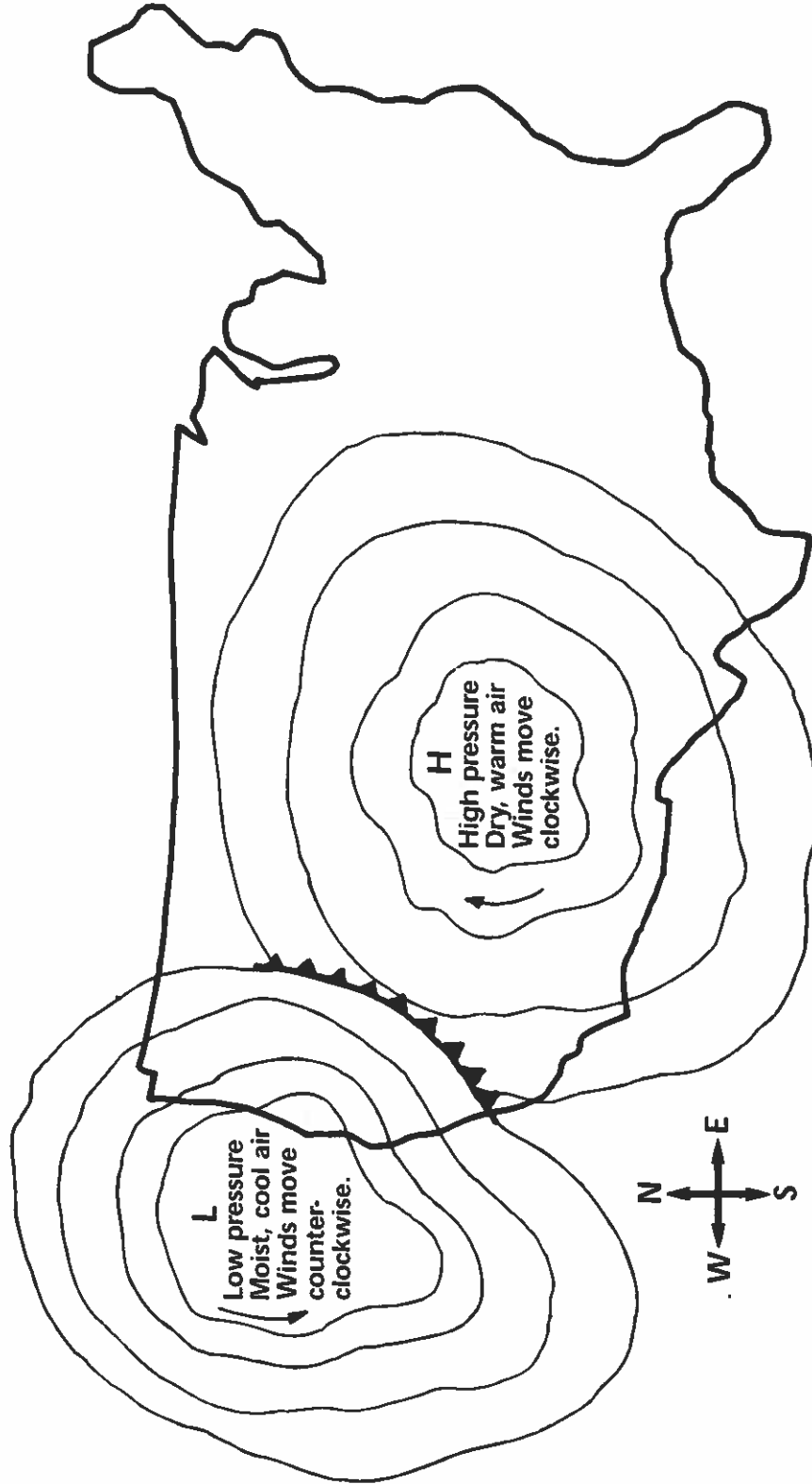
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**WEATHER**

**TRACKING A WEATHER SYSTEM**

1. These weather systems will move from \_\_\_\_\_ to \_\_\_\_\_.
2. In a low pressure cell, winds move \_\_\_\_\_.
3. When these two weather systems meet, a \_\_\_\_\_ front will form.
4. In a high pressure cell, winds move \_\_\_\_\_.
5. Which of the two weather systems is the stronger? \_\_\_\_\_
6. How do you know? \_\_\_\_\_
7. Name three kinds of fronts. \_\_\_\_\_





Name: \_\_\_\_\_

## Create Your Own Weather Saying

Now that you know about weather sayings, you can create your own.

1. What type of weather would you like to create a saying for? Is there a type of weather that you know a lot about or have a lot of experience with?

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2. What have you observed usually happens before or after this type of weather?

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3. Weather sayings are usually short and easy to remember. They often have rhyming words. Write out what you would like to say. Can you change it so that it is only a few lines long? Try to add words that rhyme at the end of each phrase or sentence.

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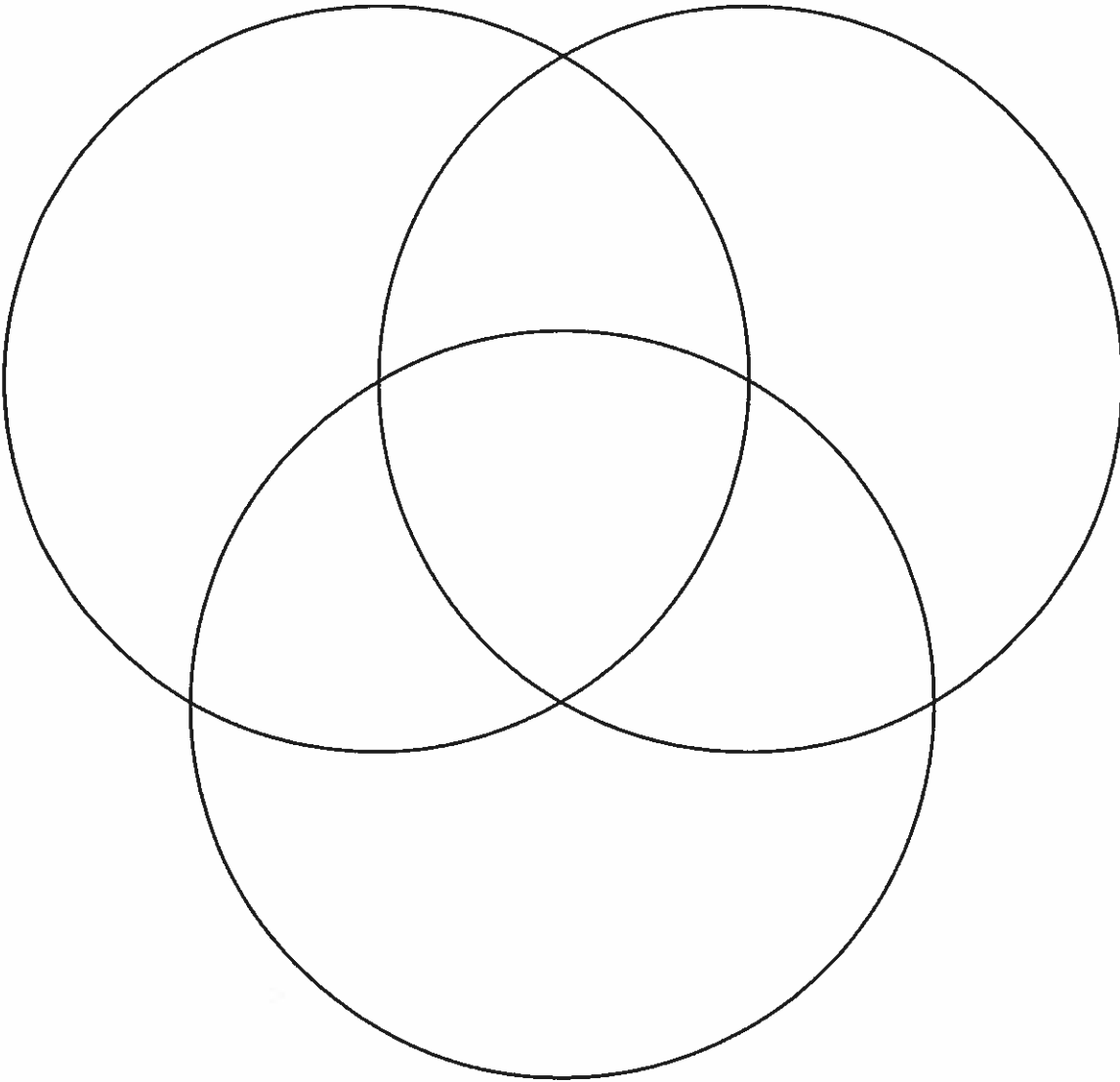
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Name: \_\_\_\_\_

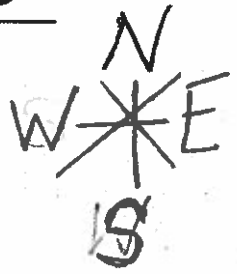
## Collecting Information About the Weather

Use the Venn diagram to compare and contrast knowledge and information from a meteorologist, an Elder, and a storm chaser.



# Is the Wind Blowing?

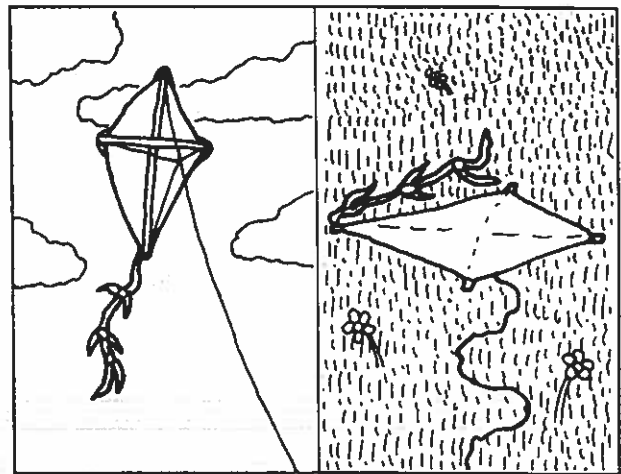
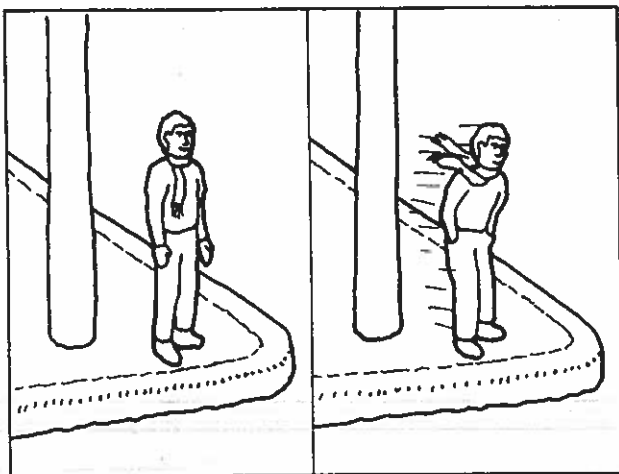
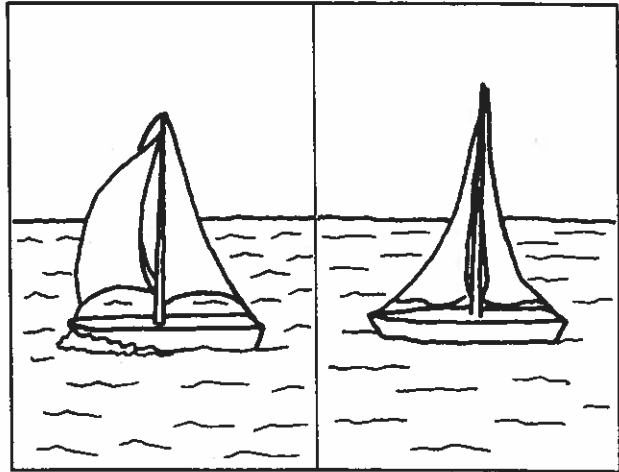
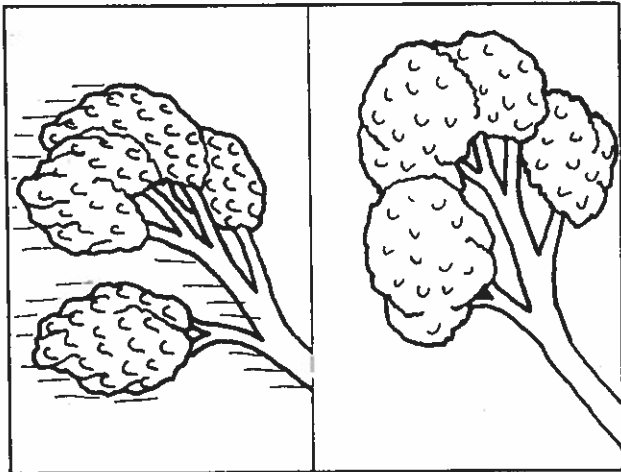
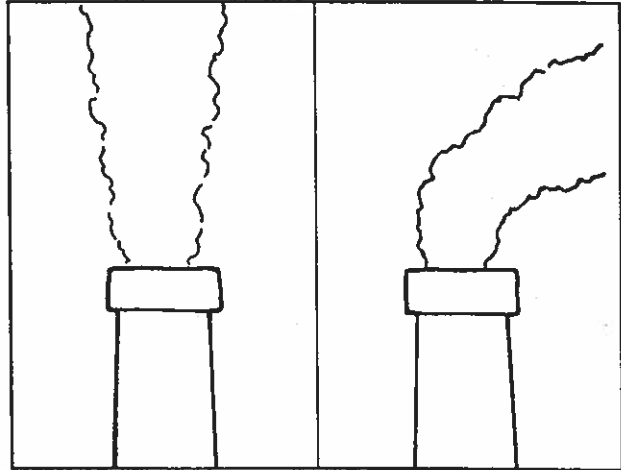
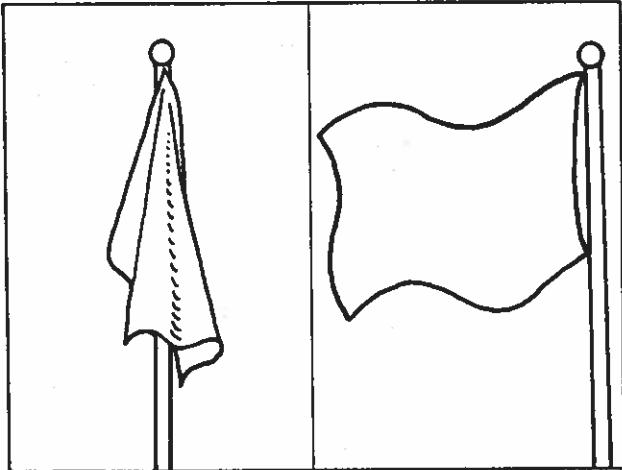
Name \_\_\_\_\_



Look at each pair of pictures on this page.

Circle the picture that shows the wind blowing.

Color the pictures. *explain what compass direction*



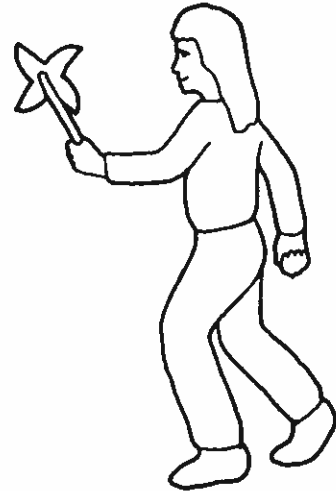
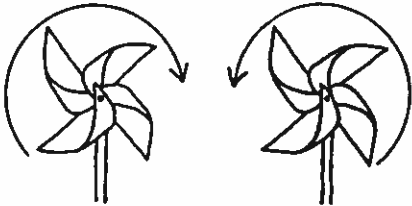
# Wind Wheels

Name \_\_\_\_\_

- Hold the wind wheel in front of you.  
Does it move? Circle the answer.

YES NO

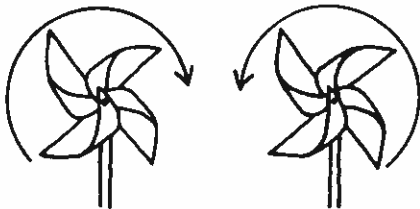
If it moved, which way did it spin?



- Blow on the wind wheel.  
Does it move? Circle the answer.

YES NO

If it moved, which way did it spin?



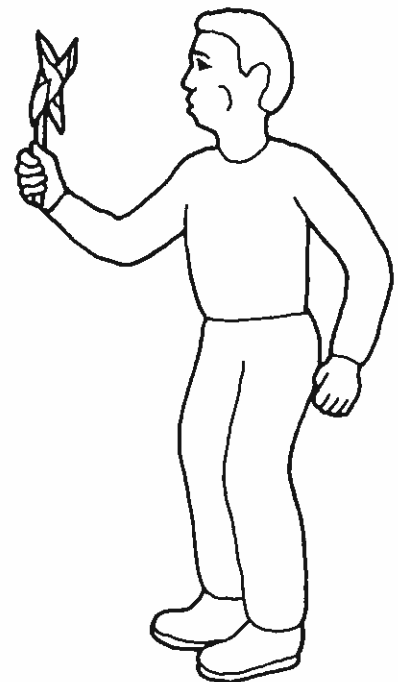
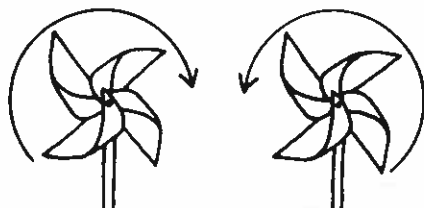
- Have your teacher take you outside.  
Do you feel any wind? Circle the answer.

YES NO

- Hold up the wind wheel.  
Does it move? Circle the answer.

YES NO

If it moved, which way did it spin?



- What do you think makes the wind wheel move? \_\_\_\_\_

# Wind Wheels

Name \_\_\_\_\_

Cut along the dotted lines.  
Listen for directions on how to make a wind wheel.

