Observing the Weather with a Meteorologist

Do you like to hear thunder?
Do you like to watch lightning from a safe place?
Barbara McNaught did when she was your age.
"I was kind of scared by thunderstorms," says Barbara,
"but I liked to watch the lightning. It reminded me of fireworks."

Now Barbara is a meteorologist. She is a weatherwoman!
Her job is to study and forecast the weather.
Barbara works at the National Weather Service.
That's one of the biggest weather watchers in the world.

Meteorologists are at work at the National Weather Service all day and all night. Even when you're asleep, they are keeping an eye on the weather. That way, if a big rainstorm or a snowstorm or a heat wave is coming your way, a weather report can tell you and your family about it ahead of time.

How does a meteorologist "keep an eye on the weather"? By looking out the window? Well, that's one way! Just as you are learning to do, Barbara uses her eyes and ears and nose and sense of touch to tell what the weather is doing.

She also uses special instruments. One of these instruments is called a thermometer. It measures the temperature to tell us how hot or cold it is.

Barbara talks to other meteorologists at the National Weather Service. They tell her about the weather patterns they have been watching.

All these different kinds of information help Barbara know what the weather is like. They also help her make weather forecasts to tell people what kind of weather is on the way—afternoon showers, or a foggy morning, or maybe even a tornado!

Are the weather forecasts that Barbara makes always right? If she forecasts rain, will it rain for sure? Well, not always. The weather can be very tricky. Sometimes it can fool even meteorologists.

Barbara liked to watch storms when she was your age. Now she is an expert in what we call "severe weather," weather such as hurricanes and tornadoes. In classes called "Skywarn," she teaches people how to get ready for storms and how to stay safe in bad weather.

She also teaches them how to spot signs of severe weather. These people then become volunteer "spotters" for the National Weather Service. A spotter who sees a tornado coming will call Barbara up right away.

You can practice being a spotter by watching the weather. It's true that meteorologists use special instruments to do this, but Barbara says, "As good as those instruments are, nothing beats the human eye."

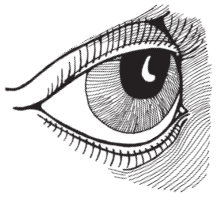
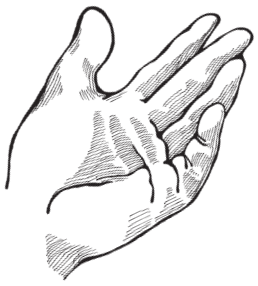
So keep your eye on the weather. Maybe one day you'll be a meteorologist, just like Barbara McNaught.

Record Sheet 2-A

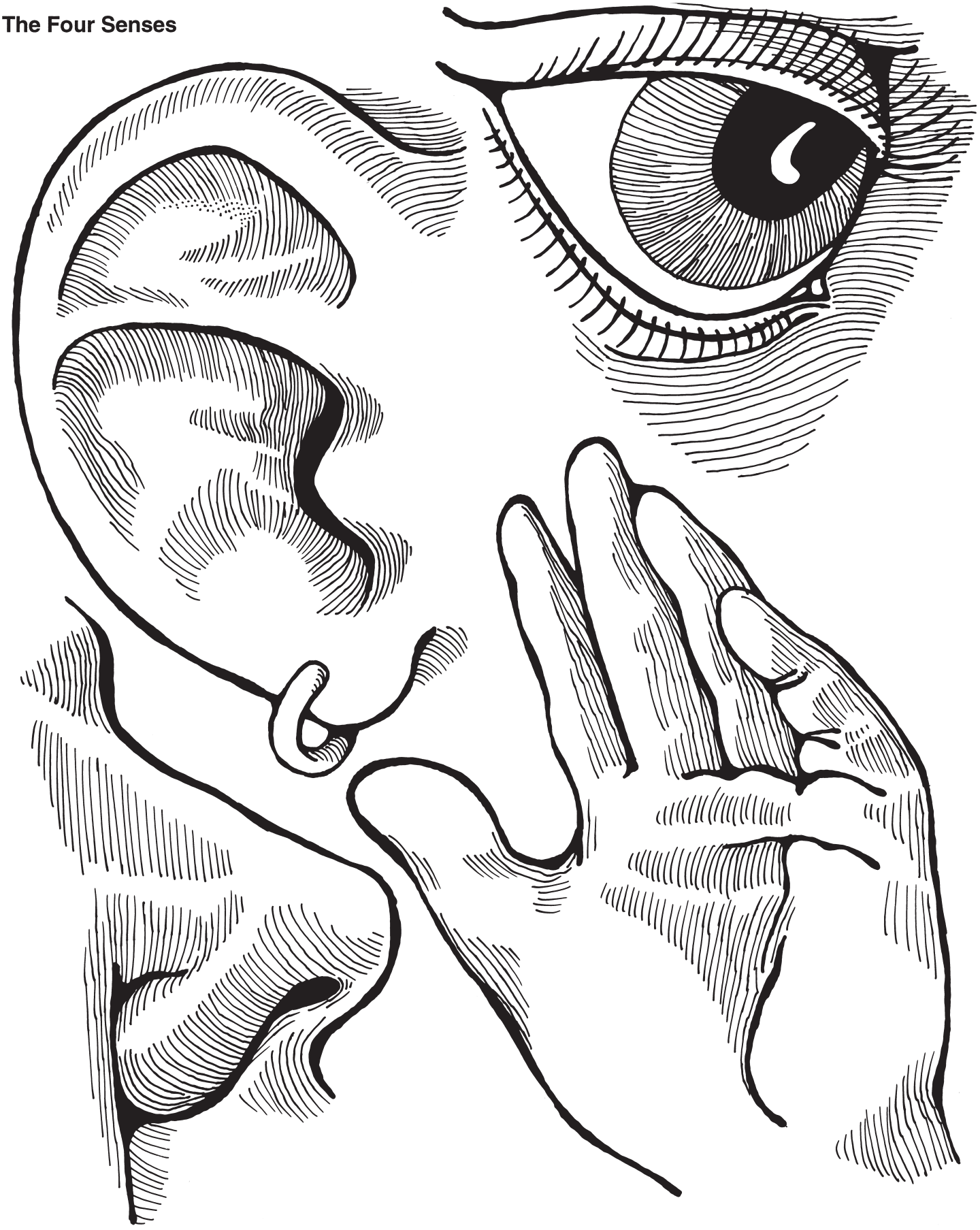
Name _____ Date _____

Directions: Record your observations of the weather.

Weather Observations

The Four Senses



Record Sheet 4-A

Name _____

Date _____

Wind Data Graph

Wind Scale

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2 Strong Wind							
1 Some Wind							
0 No Wind							

Days of the Week

1. Which day had the most wind?

_____

2. Which day had the least wind?

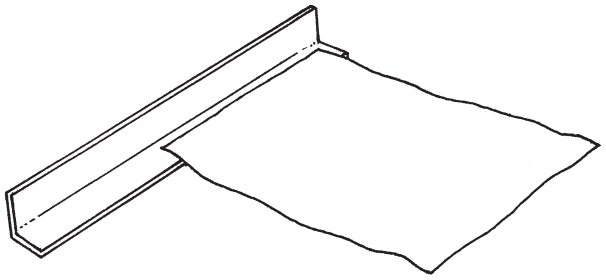
_____

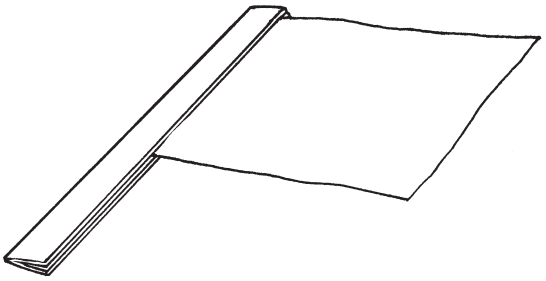
3. Which day would have been good for kite flying?

_____

Making a Wind Flag

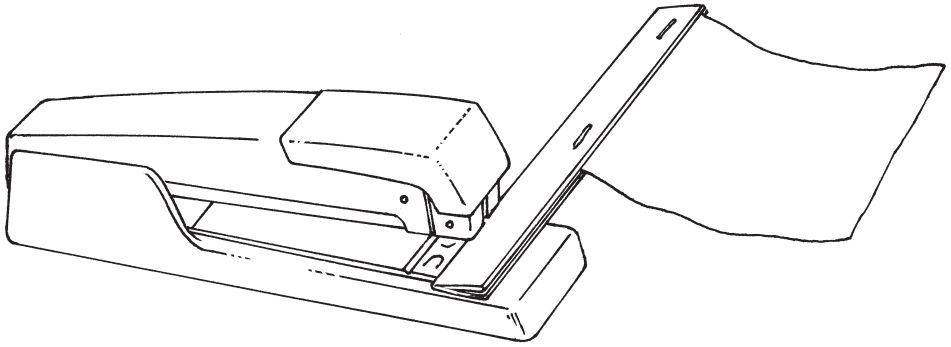
1 Insert the fabric near the top of the tagboard pole.





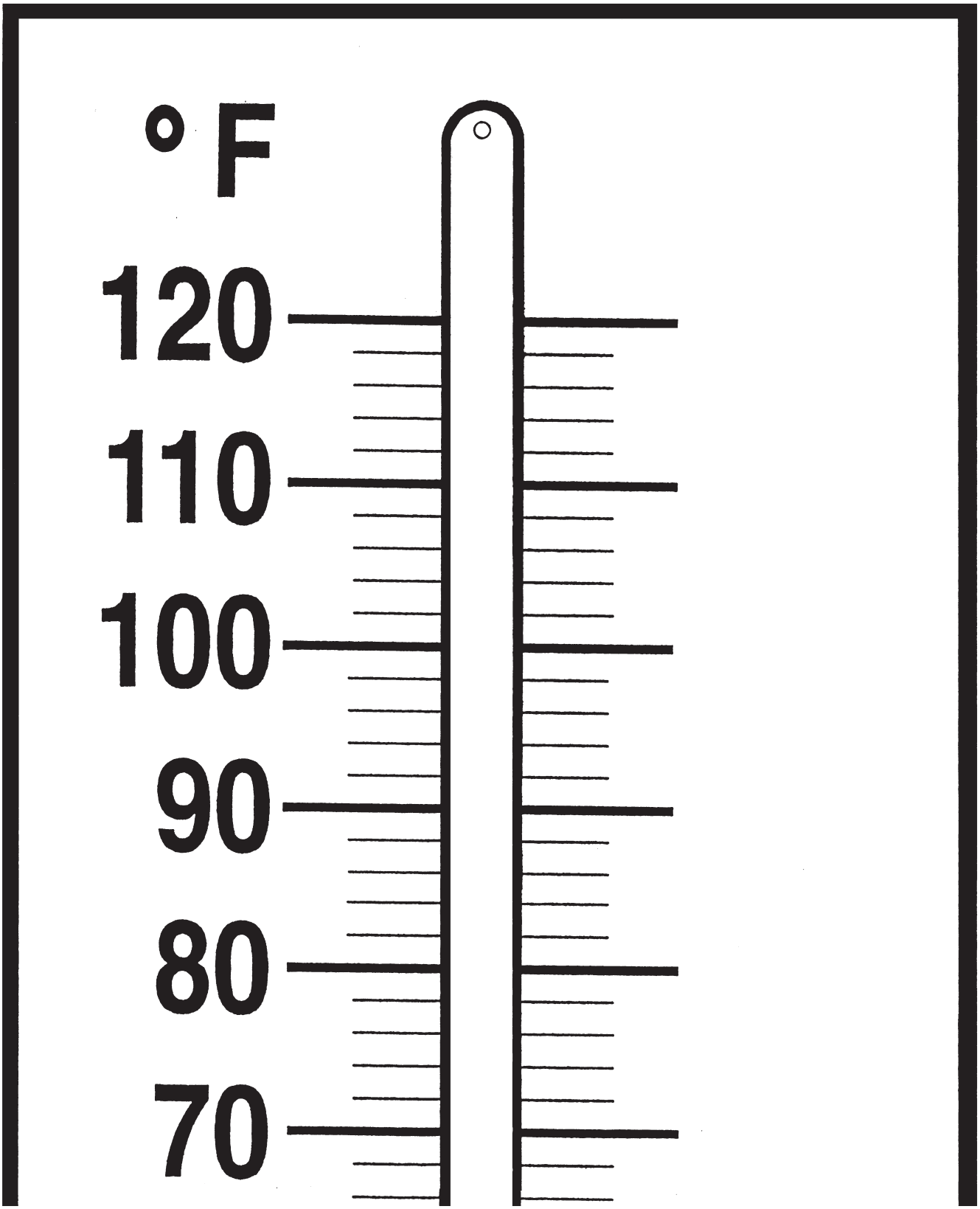
2 Fold the tagboard over the fabric.

3 Staple the tagboard in three places.

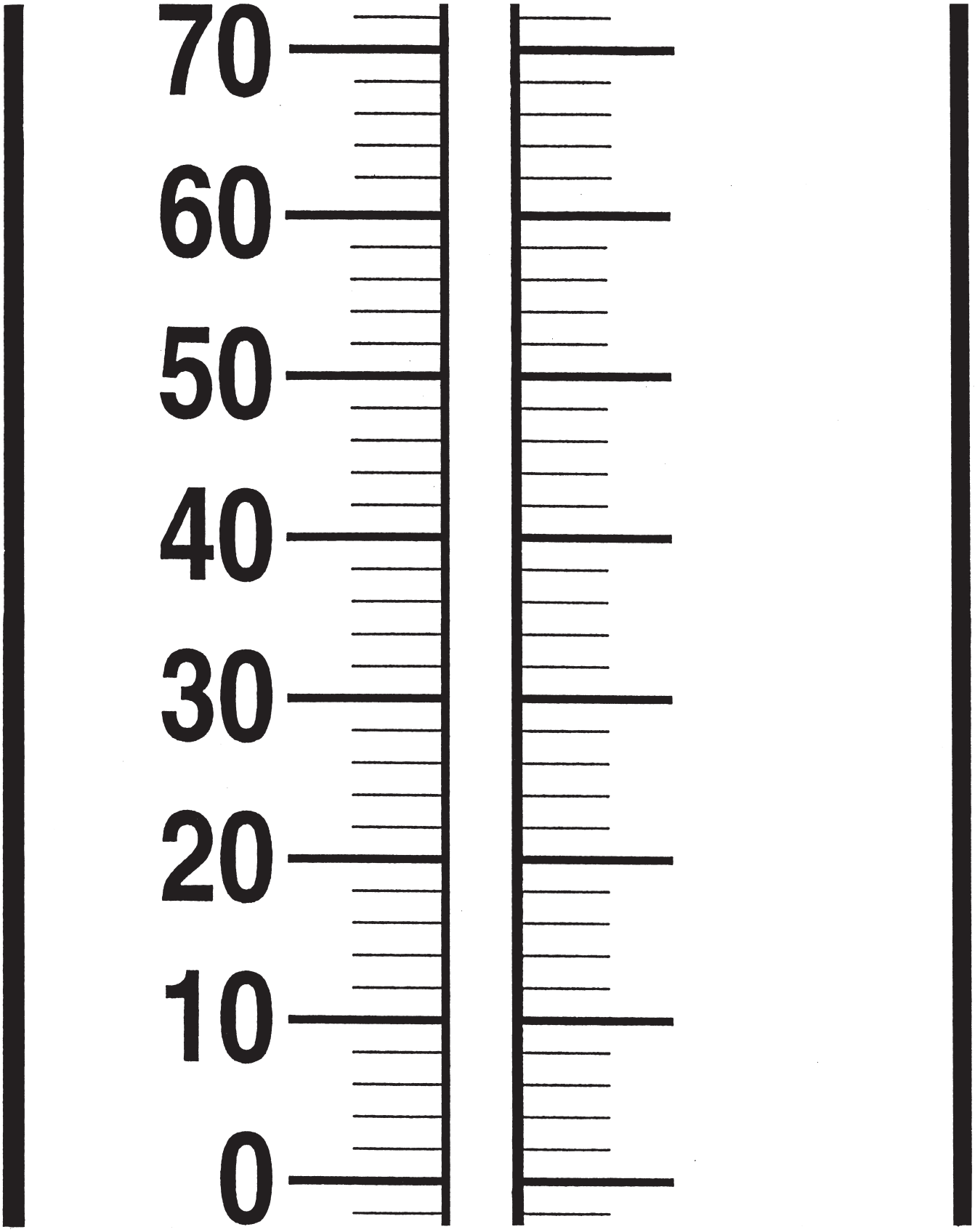


4 Decorate your flag and write your name on it.

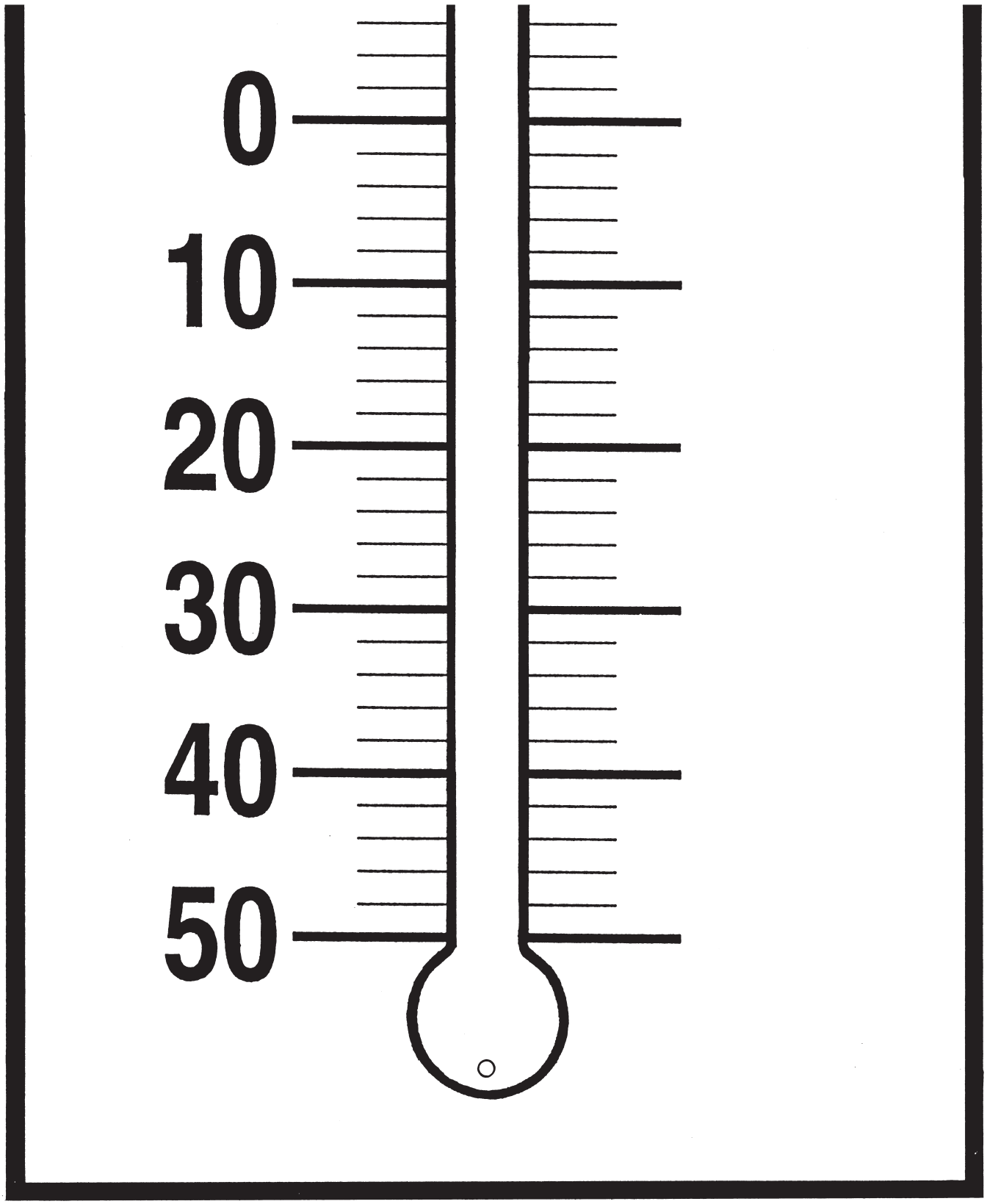
Large Model Fahrenheit Thermometer (top section)



Large Model Fahrenheit Thermometer (middle section)

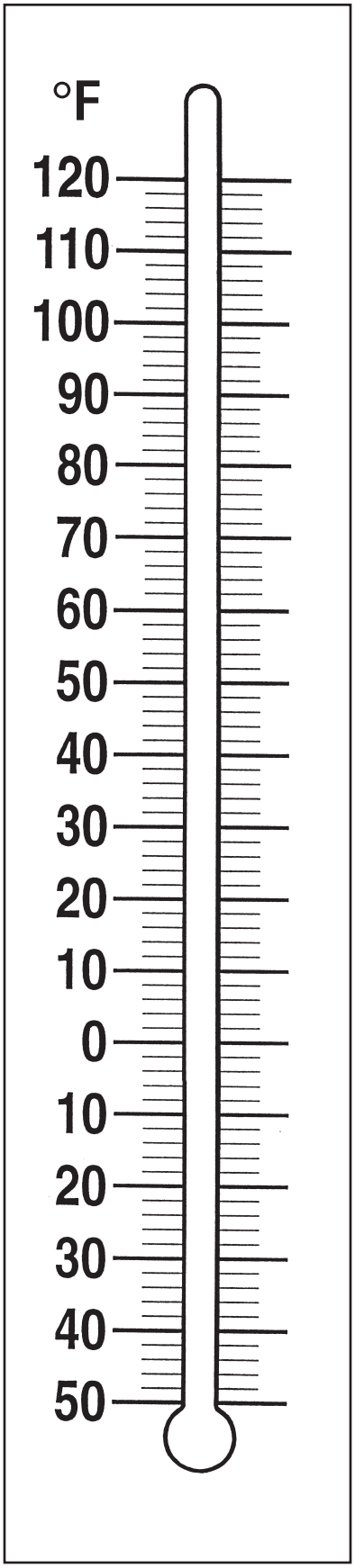


Large Model Fahrenheit Thermometer (bottom section)



Name _____

Date _____



Reading the Temperature

What is the temperature? _____

Do you think this temperature is hot or cold?

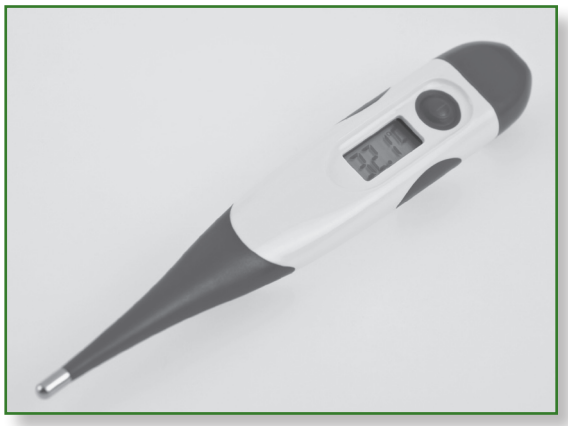
_____

_____

_____

Thermometers in Our World

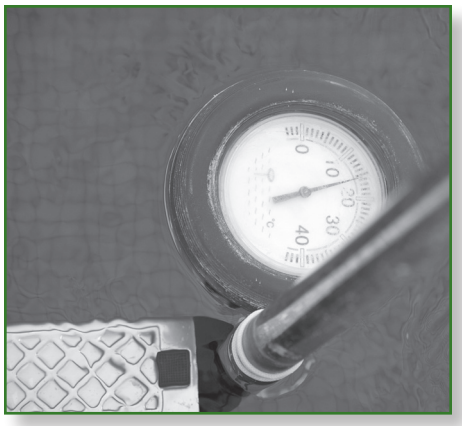
Aquarium Thermometer



Fever Thermometer

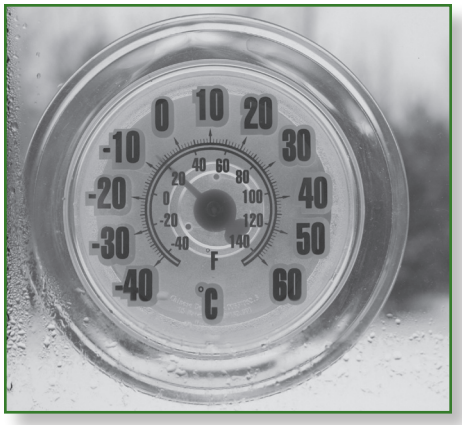
Engine Temperature Gauge

Bank Thermometer



Swimming Pool Thermometer

Meat Thermometer

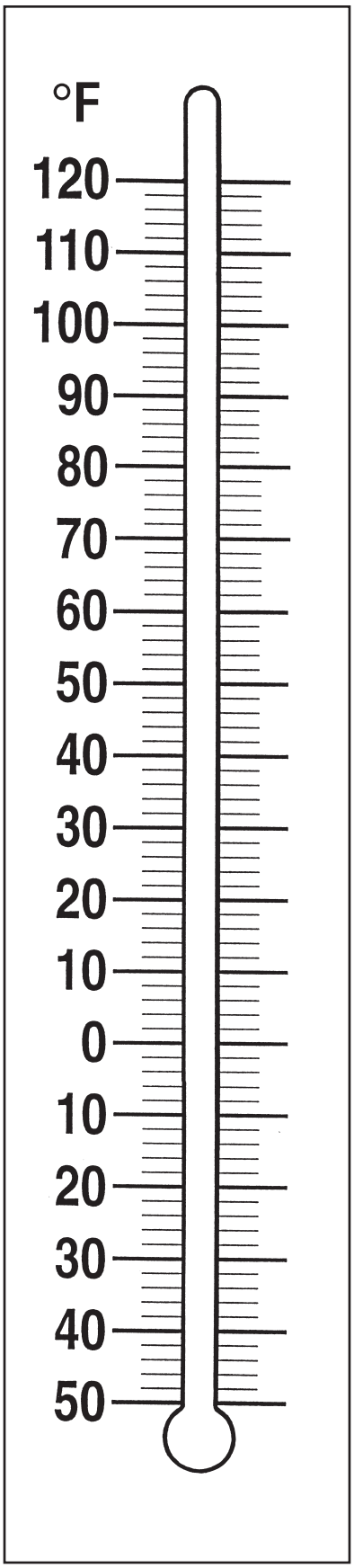


Window Thermometer

Thermostat Thermometer

Name _____

Date _____



What Is the Temperature?

What is the temperature? _____

Do you think this temperature is hot or cold?

_____

_____

_____

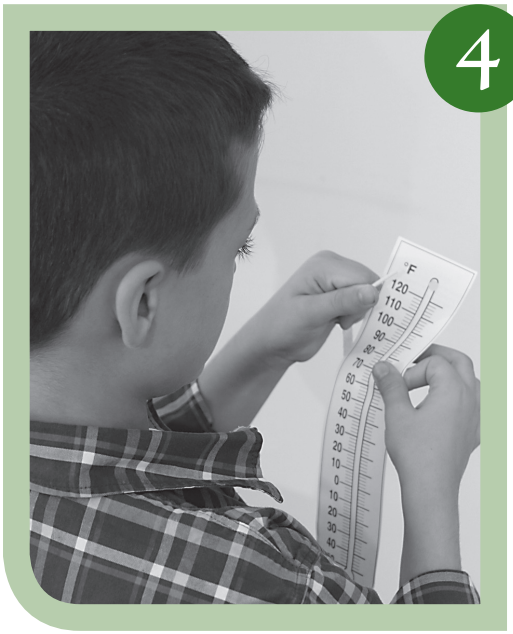
Making a Model Thermometer

1 Fold the shoelace in half. Mark this spot with the red crayon.

2 Color half of the shoelace red. Color both the front and back of this half of the shoelace.

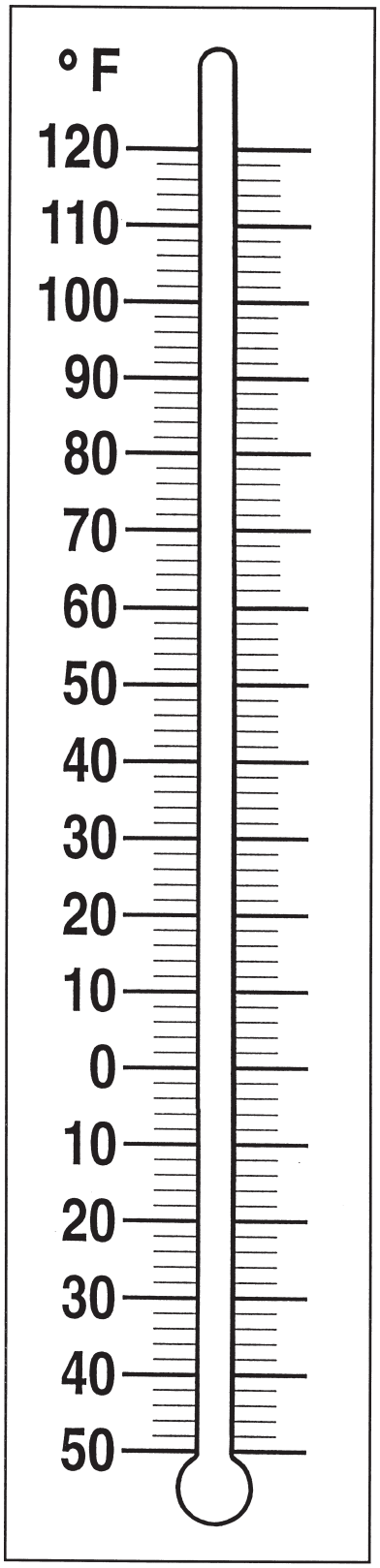
3 Put the shoelace through the holes at the top and bottom of the thermometer. Be sure that the red part is at the bottom and the white part is at the top.

4 Tie knots in the ends of the shoelace so it will not slip out of the holes.



Name _____

Date _____



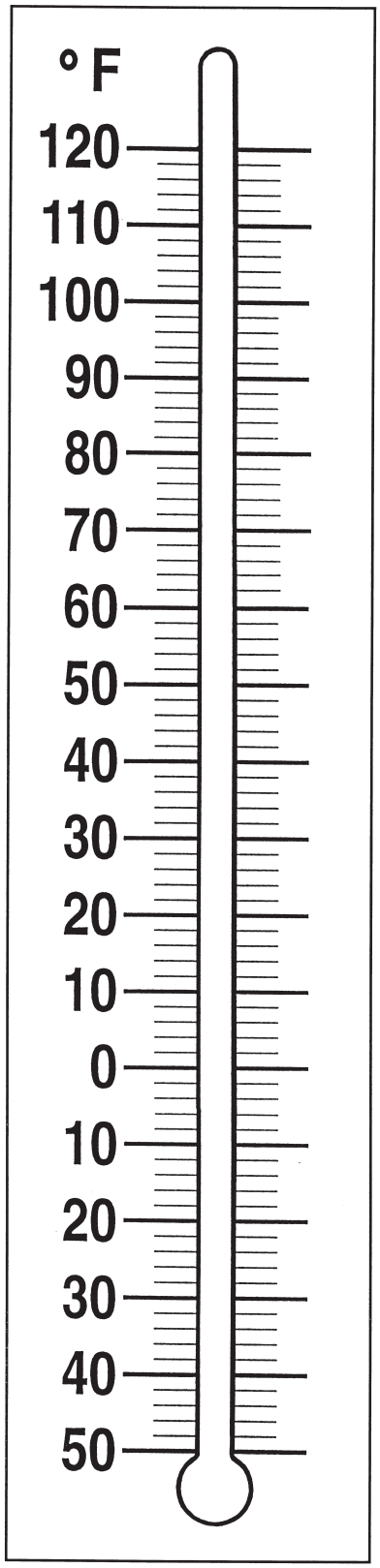
Recording the Temperature Inside

The temperature inside is _____.

Color this temperature on the thermometer.

Name _____

Date _____



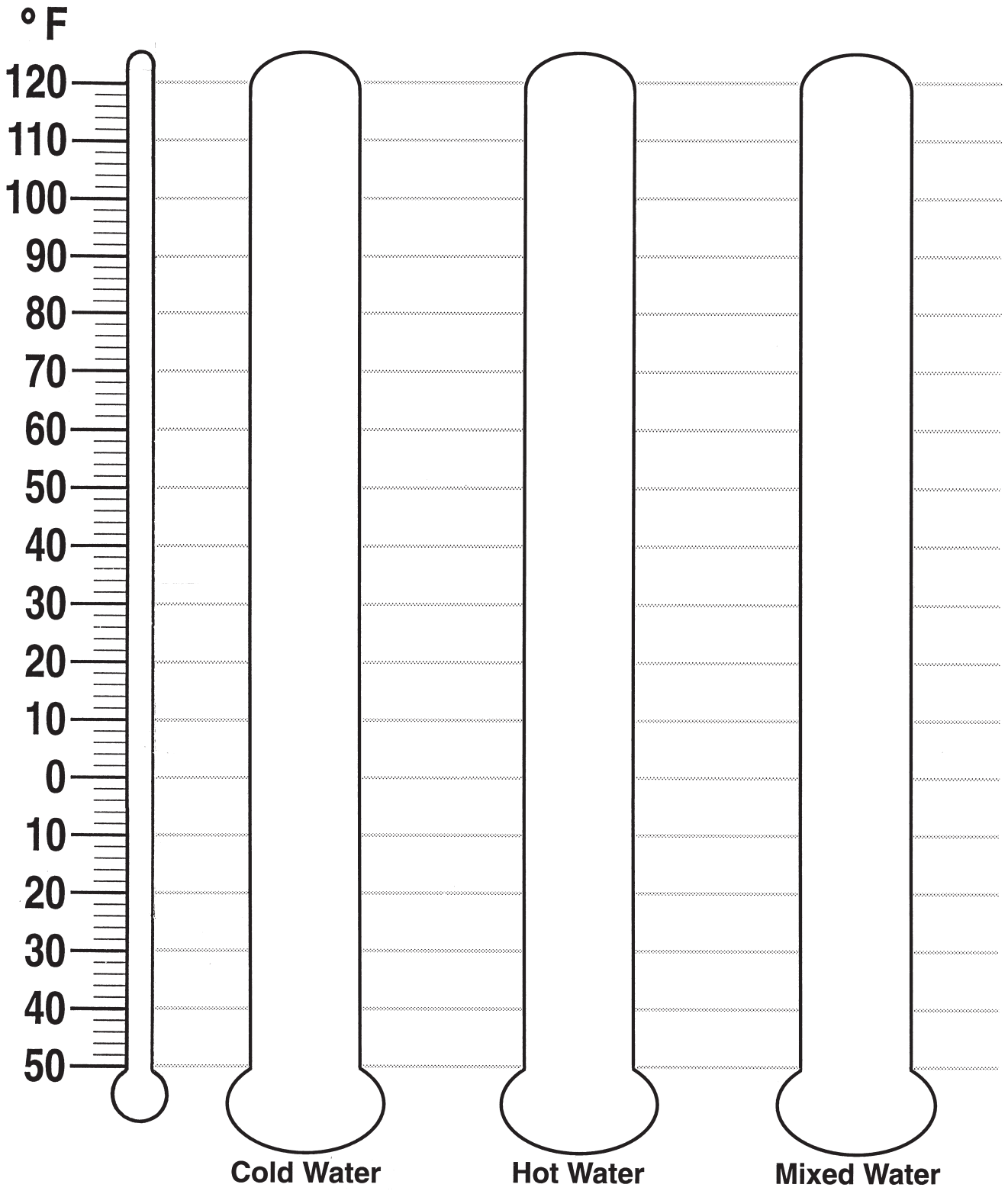
Recording the Temperature Outside

The temperature outside is _____ _____.

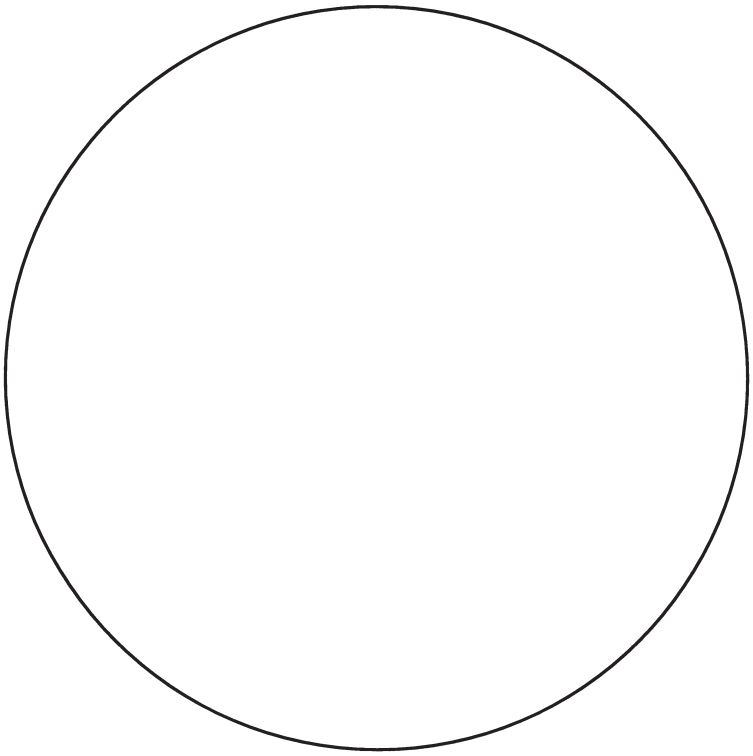
Color this temperature on the thermometer.

Name _____ Date _____

Graphing Water Temperature

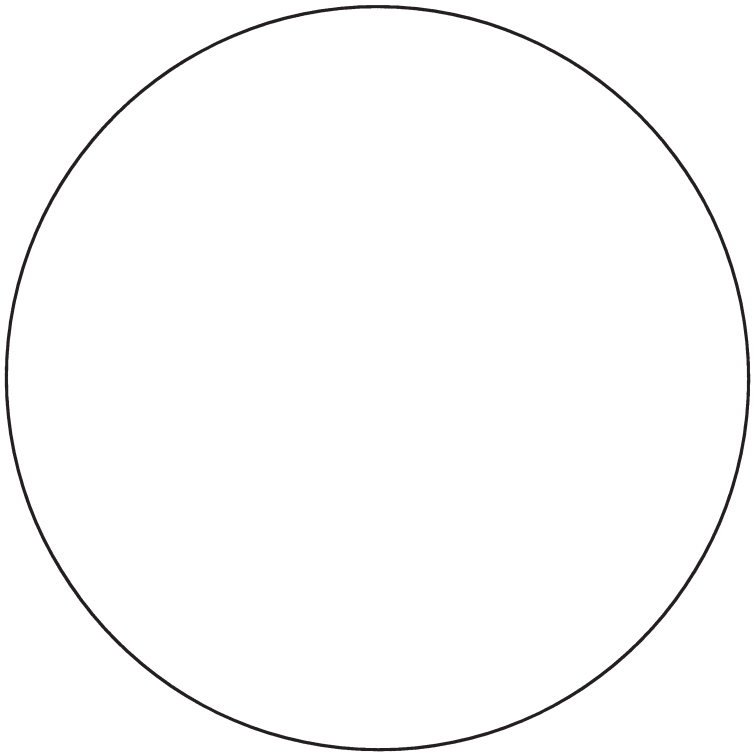


Cold Water Place Mat



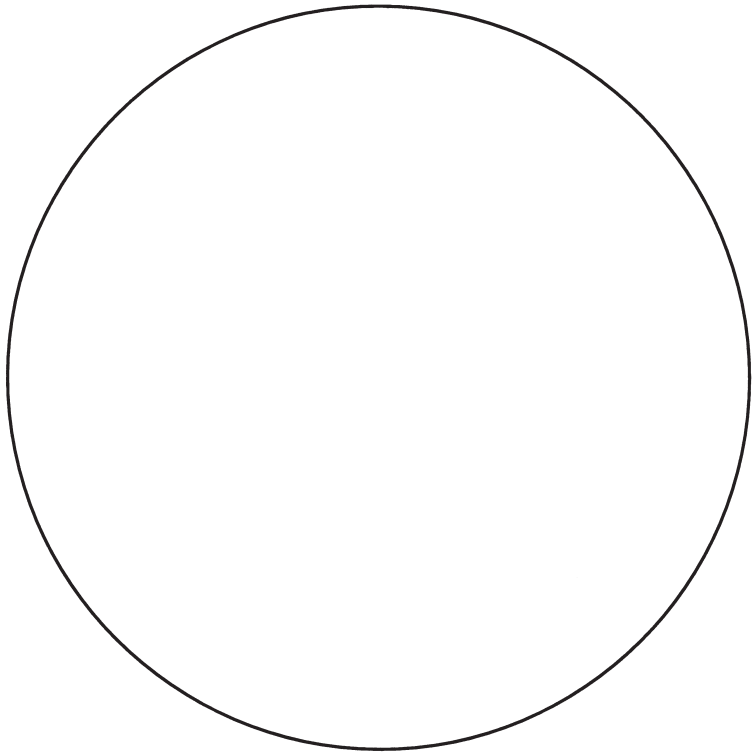
_____ °F

Hot Water Place Mat



_____ °F

Mixed Water Place Mat



_____ °F

Name _____ Date _____

Temperature and Color

The color of my thermometer bag is

_____

_____.

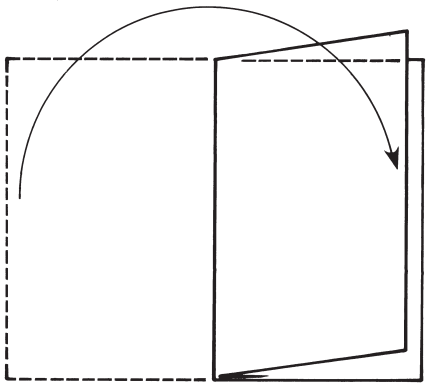
The temperature is

_____

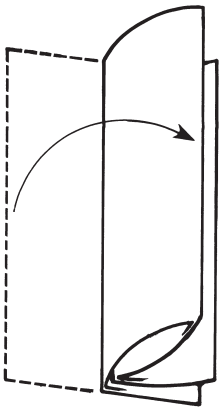
_____.

Making a Thermometer Bag

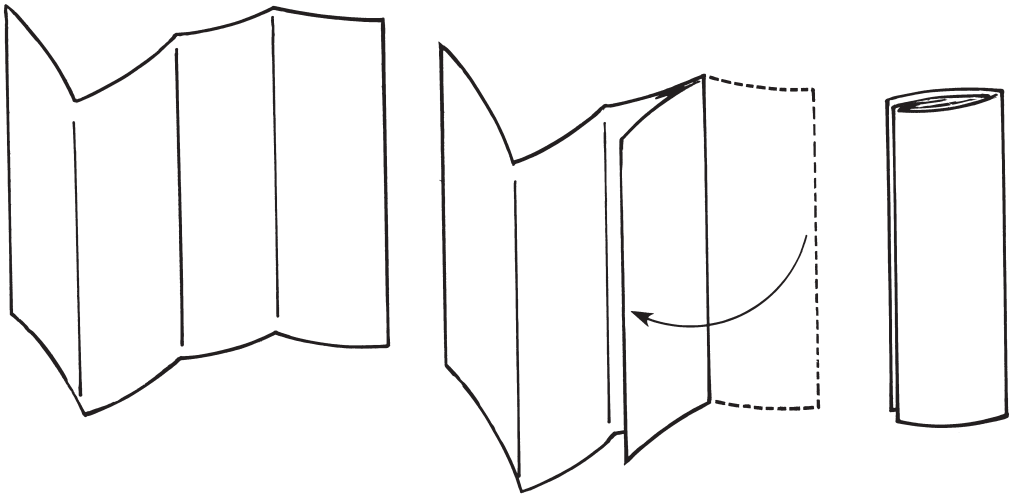
1 Fold the paper in half.



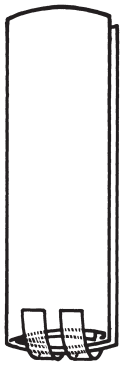
2 Fold the paper in half again.



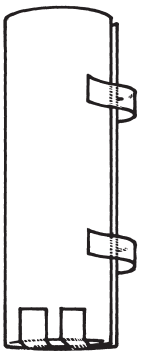
3 Unfold the paper. Now fold it from right to left at each fold so that it makes a "bag."



4 Put two pieces of tape on one end of the bag.

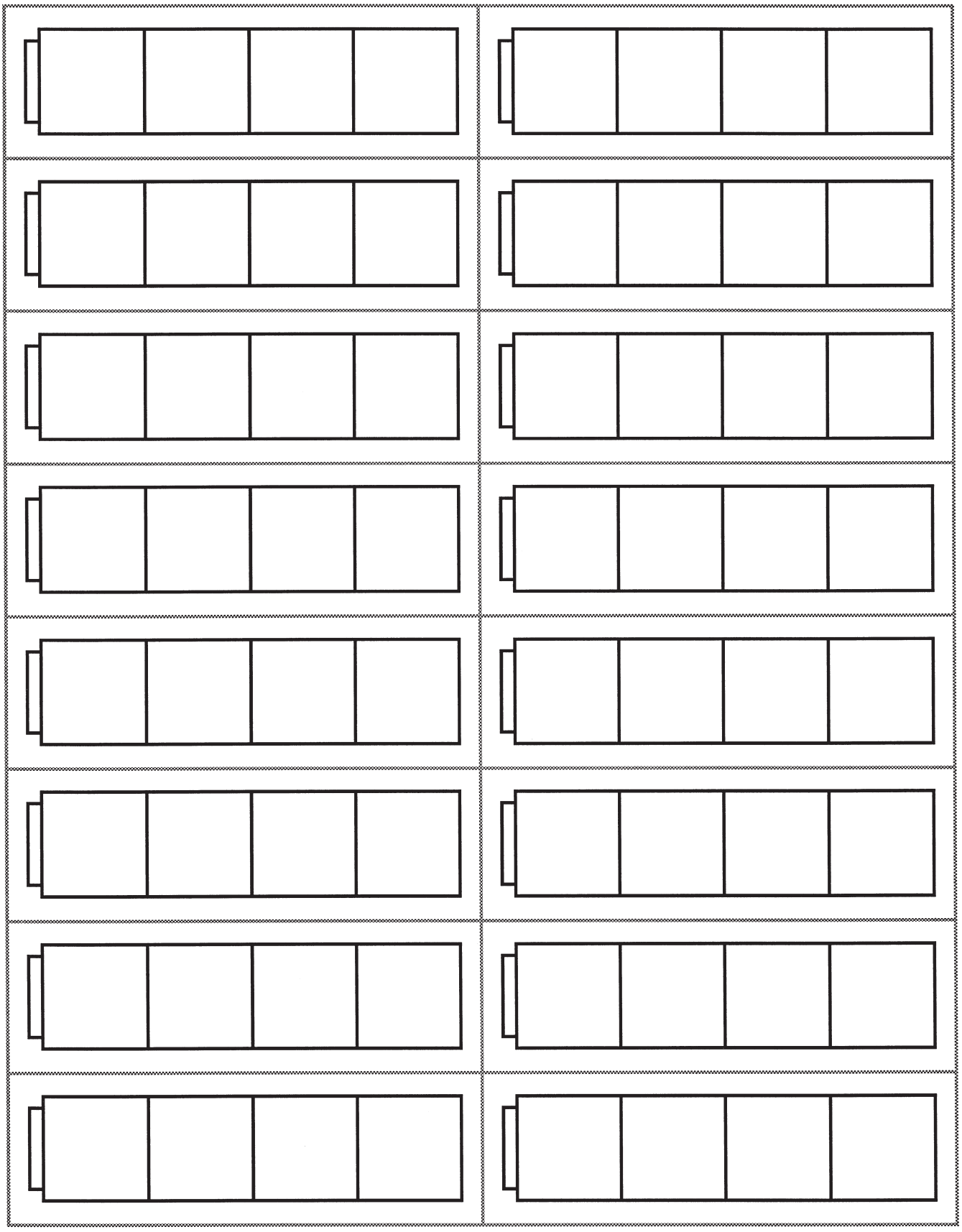


5 Put two pieces of tape on the side of the bag.



6 Write your name on the bag.

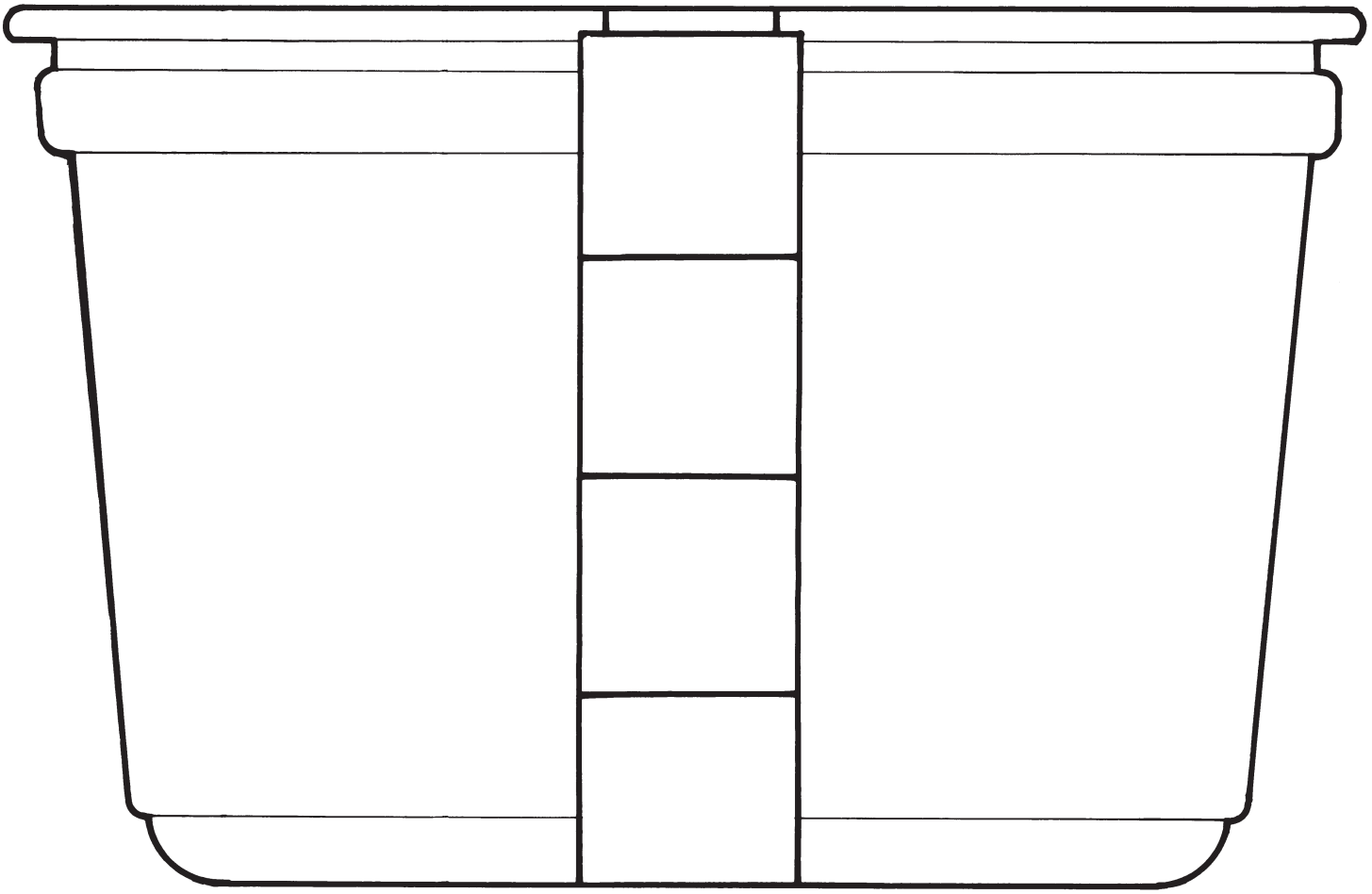
Rain Gauge Scales



Name _____ Date _____

Using a Rain Gauge

Directions: Color the picture to show how much rain you collected.



Making a Rain Gauge

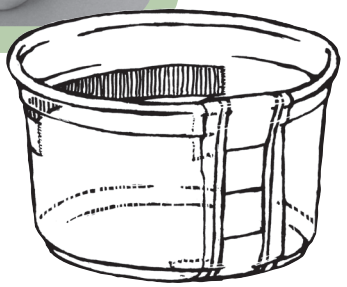
1 Lay the piece of tape on the table, with the sticky side up.

2 Have your partner place the scale on the tape with the cubes facing down.

3 Have your partner hold the cup. Put the scale on the side of the cup. Be sure the bottom cube is at the very bottom of the cup.

4 Write your name on the masking tape. Put the tape on the back of the cup.

5 Now you have a rain gauge.



Reading Selection

Inventing Umbrellas

When Katie Harding was only five years old, she became an inventor. An inventor figures out how to make something new, something that no one else has ever made before. Katie figured out how to make a special kind of umbrella. She called her invention a "Mud Puddle Spotter."

What is a "Mud Puddle Spotter"?
Why did Katie invent it?

On rainy mornings when she walked to kindergarten, Katie carried a regular umbrella. But sometimes she did not see puddles as she walked along. When she accidentally stepped in the puddles, she got quite wet. Her umbrella could not help Katie with that problem. Or could it? Katie had an idea.

"What about putting a light on my umbrella," she thought. "A light would help me see the puddles on dark rainy mornings."

With her mother's help, Katie attached a flashlight to her umbrella. Her idea worked! Her invention helped her spot puddles as she walked to school. Katie even won a prize for her "Mud Puddle Spotter" in a contest for young inventors.

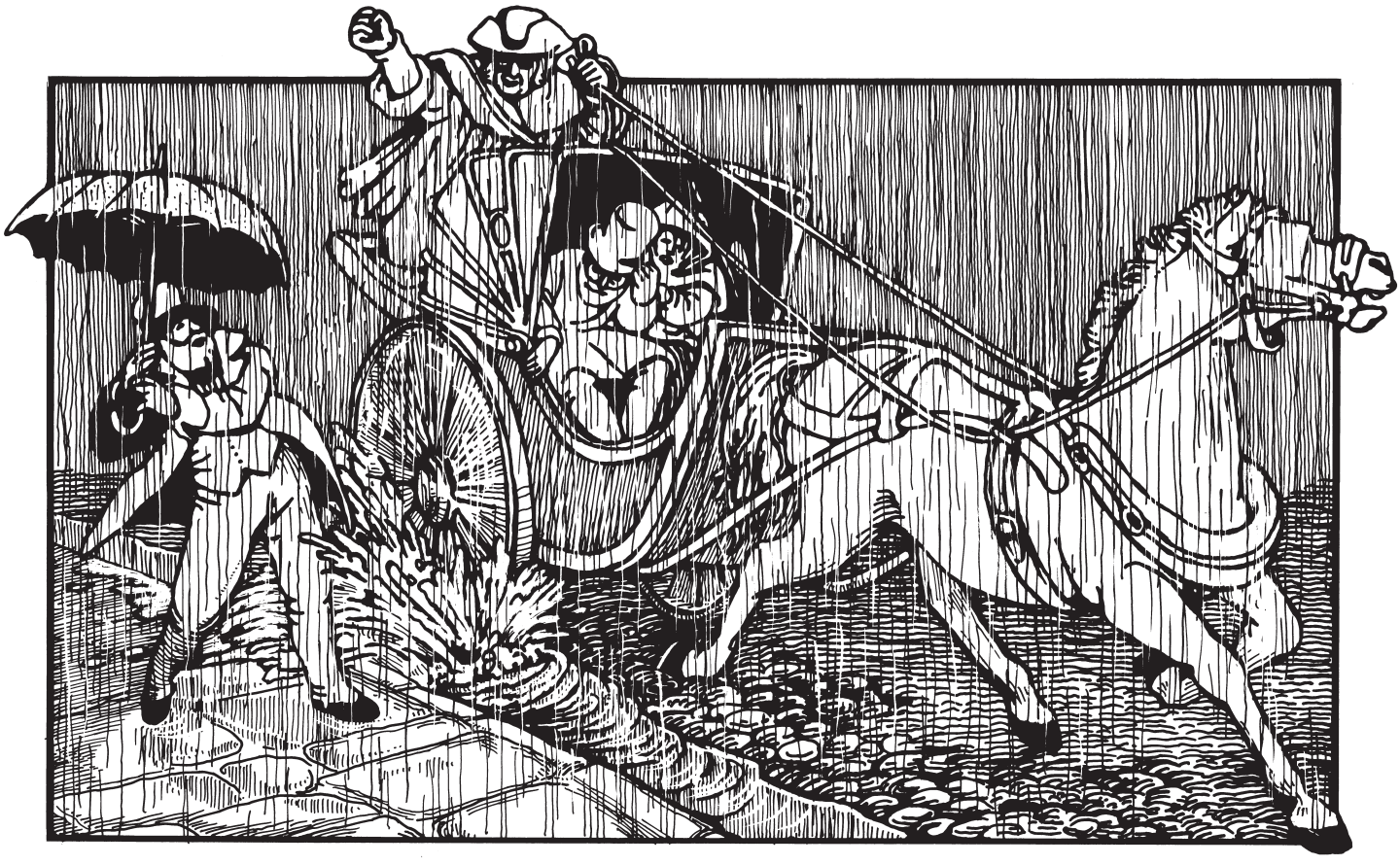
The very first umbrella was invented a long, long time ago. It was probably made in China about three thousand years before Katie made her "Mud Puddle Spotter." We do not know the name of the person who invented the first umbrella. But since then, many other people have been interested in making umbrellas. One of these people was Sir Jonas Hanway.

Sir Jonas lived in England about 250 years ago. He was a businessman, and he often traveled to other countries. When he went traveling, he saw people using umbrellas. In England, most people did not have umbrellas. They were expensive, and no factories made them. He knew umbrellas were useful, and he wanted people in his own country to be able to buy them.

Every day, Sir Jonas took a walk around London. He always carried an umbrella. The drivers of horse-drawn coaches were unhappy with Sir Jonas. They wanted people to use coaches on rainy days, not umbrellas. Some of them even drove through puddles and splashed him. But that did not stop him from taking his daily walks, umbrella in hand.

Sir Jonas also kept saying that all the people of London should be able to have umbrellas to protect them from the rain. And before he died, factories had been built to make umbrellas for the people in England. These umbrellas became very popular. They were named for Sir Jonas. They were called "Hanways."

People seem to keep finding new ways to make umbrellas. If you could invent a new kind of umbrella, what would it look like?

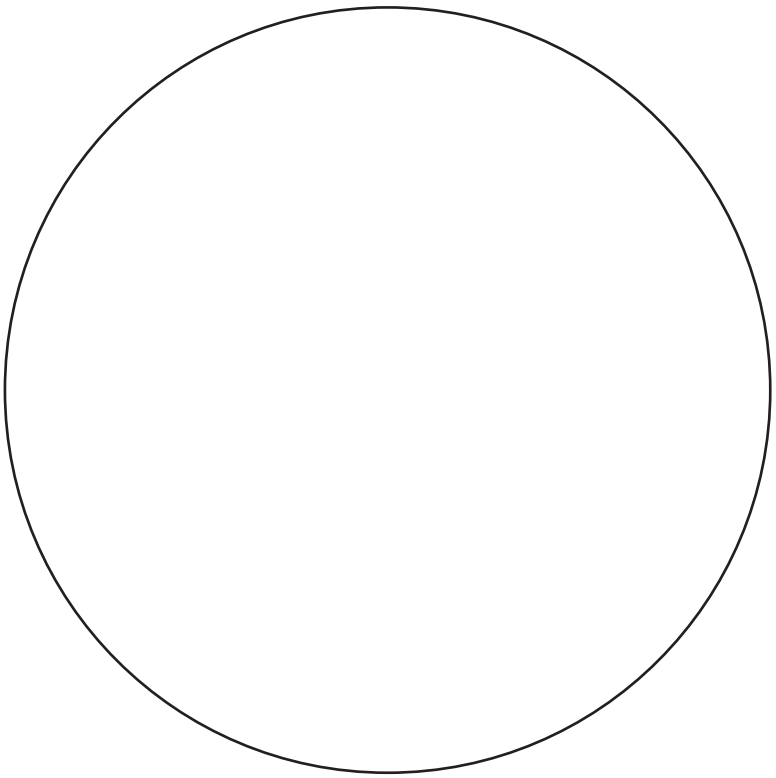


My Puddle Book

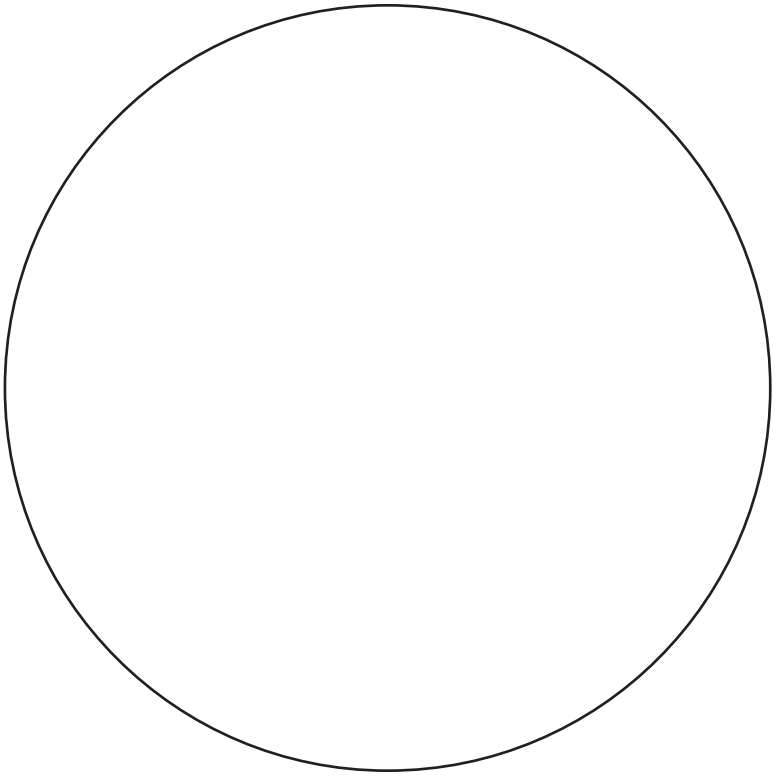
BY _____

Day: _____

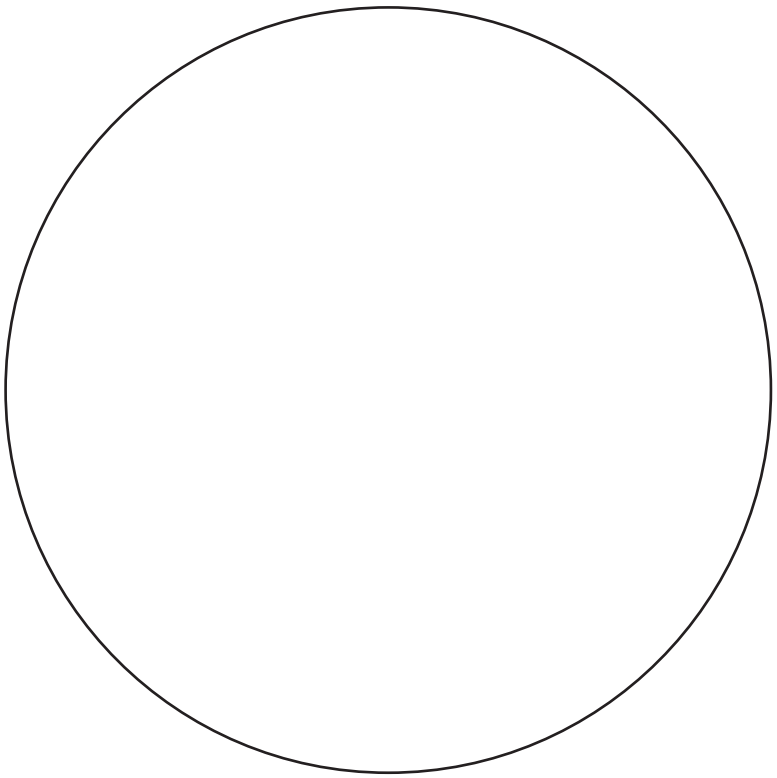
Day: _____



Day: _____



Day: _____



Where did the water go?

Reading Selection

A Coat to Keep You Dry

Have you ever watched a bird sitting on a tree branch in the warm summer rain? Did you hear the bird singing cheerfully as it fluffed up its feathers?

Would you be cheerful if you were out in the rain? Would you be singing happily and skipping along? Or would you be racing to get inside?

If you were wearing your raincoat, you might be just as cheerful as a bird. A bird's feathers keep it from getting "soaked to the skin." Your raincoat keeps you from getting soaked if you are out in the rain.

Raincoats are made in a special way to keep people dry. They are made with waterproof cloth. Rain cannot go through waterproof cloth.

The man who invented the first kind of waterproof cloth was named Charles Macintosh. He lived in Scotland about two hundred years ago.

This is how Mr. Macintosh made the cloth. He knew that water would not go through rubber. So, first he found a way to turn rubber into a liquid. Then he painted the liquid rubber on a piece of cloth. Another piece of cloth went on top. When the rubber dried, the cloth and the rubber were stuck together, like a peanut butter sandwich. Water could not get through this cloth. It was waterproof.

Mr. Macintosh soon began making raincoats with the new cloth. People were very happy because his coats kept them dry.

The waterproof raincoat that Charles Macintosh invented was named after him. It is called a "mackintosh."

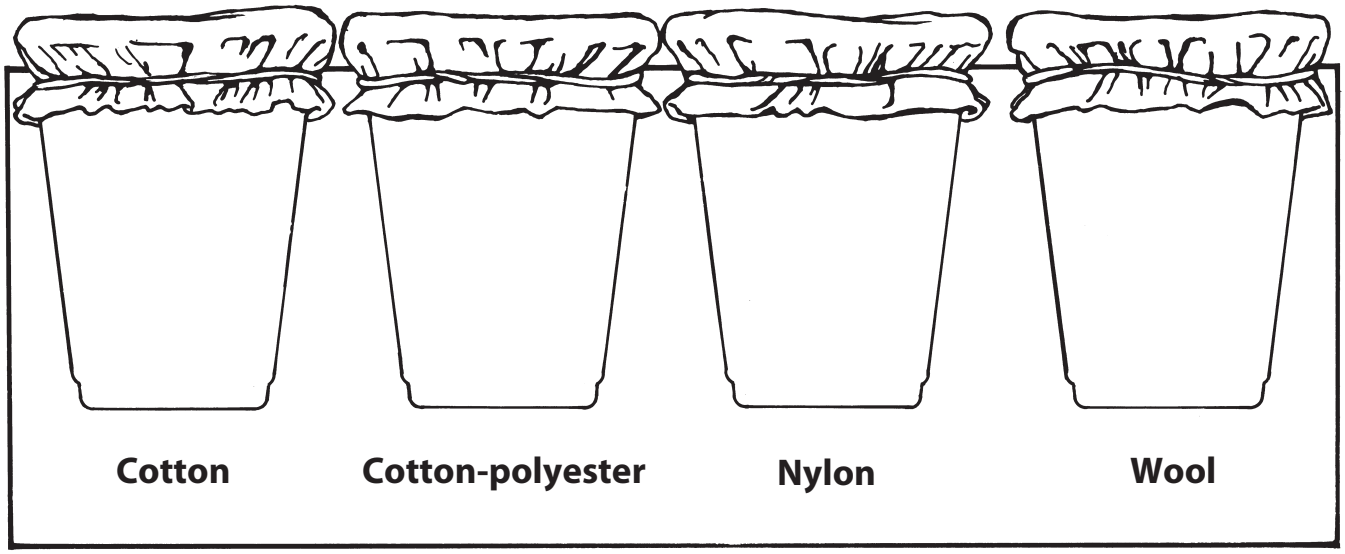
Name _____

Date _____

Rainy Day Fabrics

Color the fabric on each cup.

Color the cups to show how much water is in them.



Which fabric would you wear in the rain?

_____

_____

_____

Why?

_____

_____

_____

_____

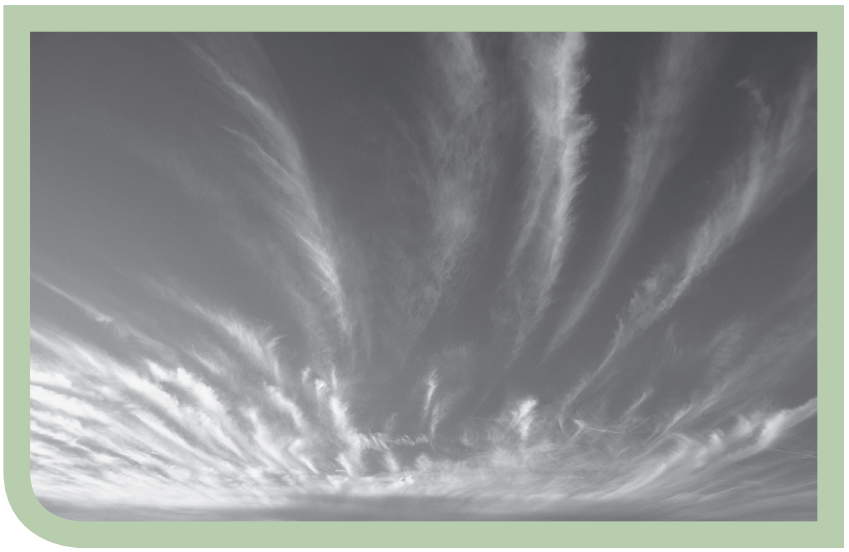
_____

_____

Cloud Classifications

Stratus

Cumulus



Cirrus

Name _____

Date _____

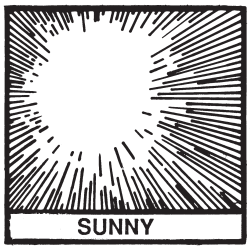
Recording the Forecast and the Weather

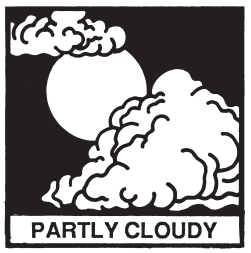
	Forecast	Today's Weather
Cloud cover		
Precipitation		
Wind		
Temperature	°F	°F

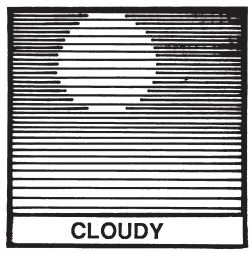
Name _____

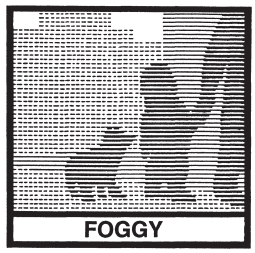
Date _____

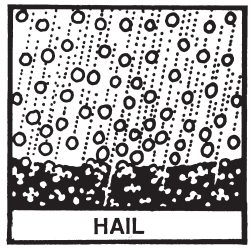
Student Weather Tally

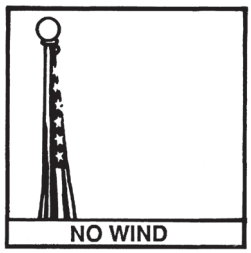












WEATHER

Super Meteorologist Award

_____

Name

You're the Best

_____

Date