

Weather Instruments

CONTENTS

Think About . . .



What Causes Earth's Weather?	2
How Do We Measure Air Temperature?	3
How Do We Measure Air Pressure?	4
How Do We Measure Wind?	5
What Causes Clouds and Precipitation?	6
How Do We Measure Humidity?	7
How Do We Measure Precipitation?	8
Other Weather Instruments	9



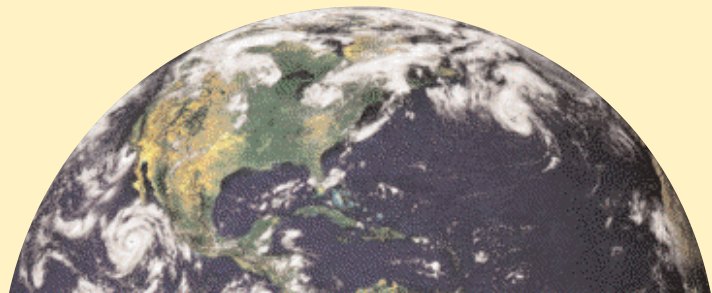
People in Science

Gabriel Fahrenheit	10
Anders Celsius	10
Sir Francis Beaufort	11
Airport Meteorologists	12

Did You Know?

How Thermometers Work	14
About Wind Chill	15

Glossary	16
---------------------------	----



Glossary

air mass body of air that has about the same temperature and humidity throughout

air pressure force of the atmosphere pushing down on Earth

anemometer instrument used to measure the speed of the wind

atmosphere layer of air surrounding Earth

barometer instrument used to measure air pressure

Beaufort scale scale that relates wind speed to its effects on land and sea

Celsius type of temperature scale

cirrus cloud thin, feathery cloud made of ice crystals

cloud mass of tiny water droplets or ice particles in the air

cold front leading edge of a moving mass of cold air

condensation the process of a gas changing to a liquid

cumulus cloud puffy cloud

evaporation the process of a liquid changing to a gas

Fahrenheit type of temperature scale

front boundary between air masses with different temperatures

humidity the amount of water vapor in the air

hygrometer instrument used to measure humidity

meteorologist scientist who studies the weather

precipitation any form of water that falls from clouds to Earth

rain gauge instrument used to measure the amount of precipitation

stationary front place where a cold air mass and warm air mass meet, but neither moves

stratus cloud low, layered cloud

temperature measure of the amount of heat energy in a substance

thermometer instrument used to measure temperature

troposphere bottom layer of Earth's atmosphere where weather occurs

warm front the leading edge of a moving mass of warm air

water cycle constant movement of water from Earth to the atmosphere, and back to Earth

water vapor water in the form of a gas

weather state of the atmosphere at a certain place and time

weather map map that shows weather conditions over a large area

wind moving air

wind chill how cold the air feels because of the wind

wind vane instrument used to tell the direction from which the wind is blowing

© Delta Education LLC. All rights reserved.