

Primary Science

Heat, Light, and Sound, 1-3

Contents

Temperature	1
Understanding Temperature	2
Heat Changes Things	3
Sources of Heat	4
The Fire Triangle	5
Safety Rules for Using Fire	6
Making a Fire Safety Poster	7
Fuel	8
Light Sources	9
How Light Travels	10
Light and Color	11
Making Rainbows	12
Light and Objects	13
Transparent, Translucent, and Opaque	14
Shadows	15
Making Shadows	16
How People See	17
How Sounds are Produced	18
Kinds of Sound	19
Using Sound	20
Musical Instruments	21
Making Music	22
How People Hear	23
How Sounds Travel	24
Animal Sounds	25
Recognizing Animal Sounds	26
Heat, Light, and Sound in Daily Use	27
Awards	28

Authors

Edward Ortleb
Richard Cadice
Nancy McRee

Artist

Don O'Connor

Managing Editor

Kathy M. Hilmes

Other books available in this series include:

Plants and Animals
Seasons and Living Things
Earth, Sun, and Stars

Copyright © 1988
Milliken Publishing Company
a Lorenz company
P.O. Box 802
Dayton, OH 45401-0802
www.LorenzEducationalPress.com

All rights reserved.

EMP3314

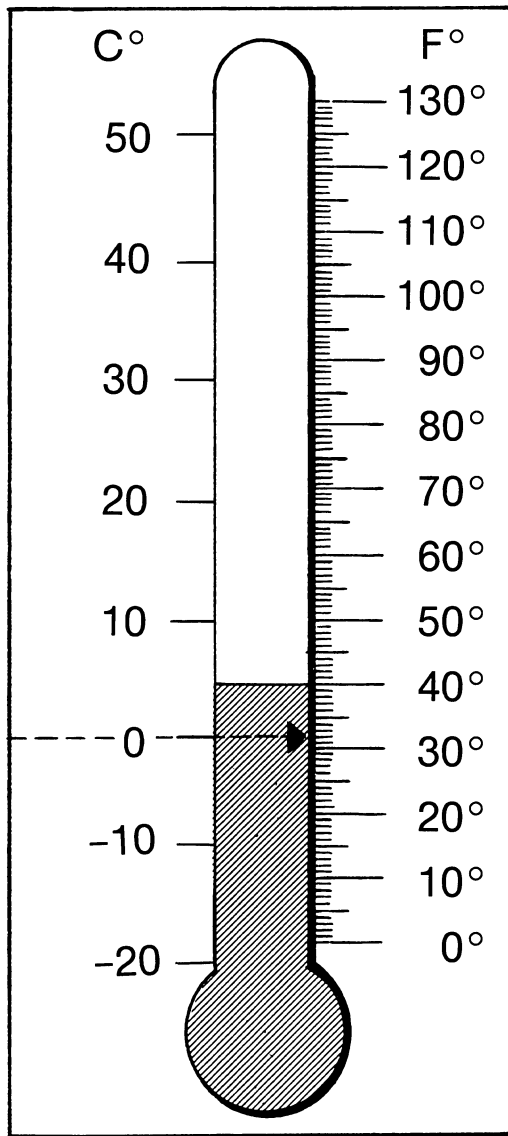
The purchase of this book entitles the individual teacher/purchaser to reproduce copies by duplicating master or any photocopy process for single classroom use. The reproduction of any part of this book for use by an entire school or school system or for any commercial use is strictly prohibited.

Temperature

Temperature tells how hot or cold something is.
Temperature is measured with a thermometer.

Water boils at
 100°C , or 212°F .

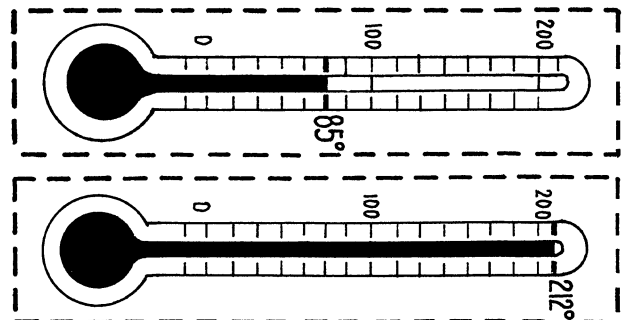
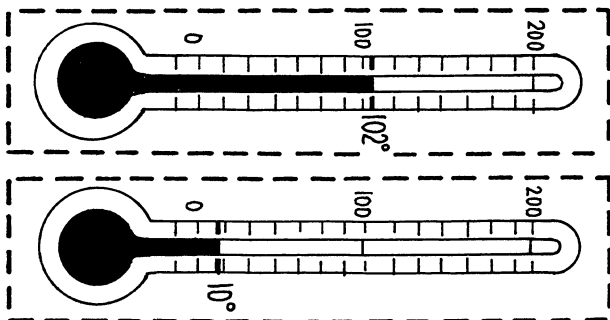
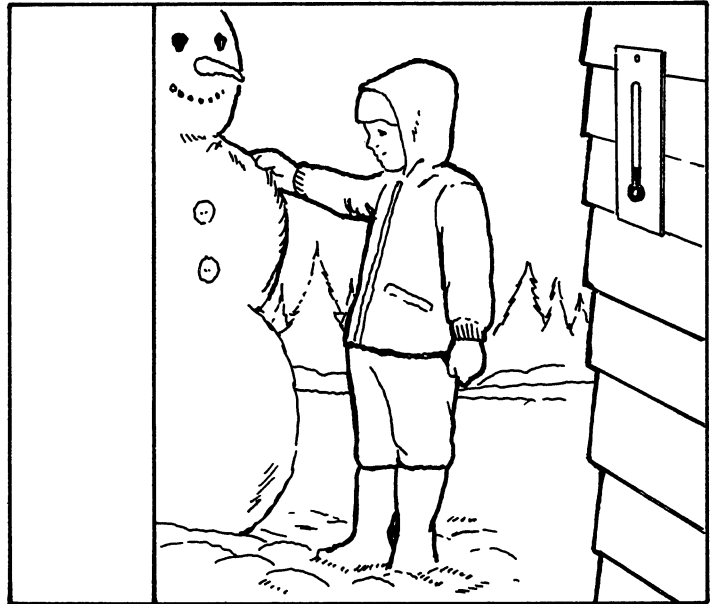
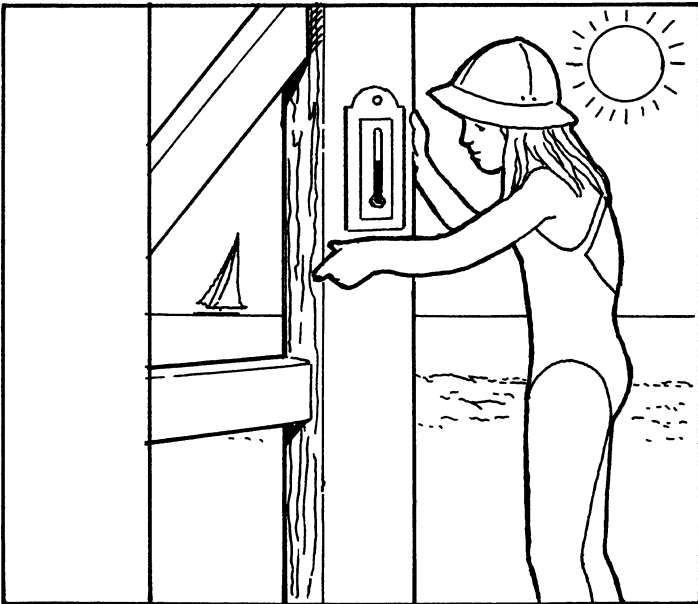
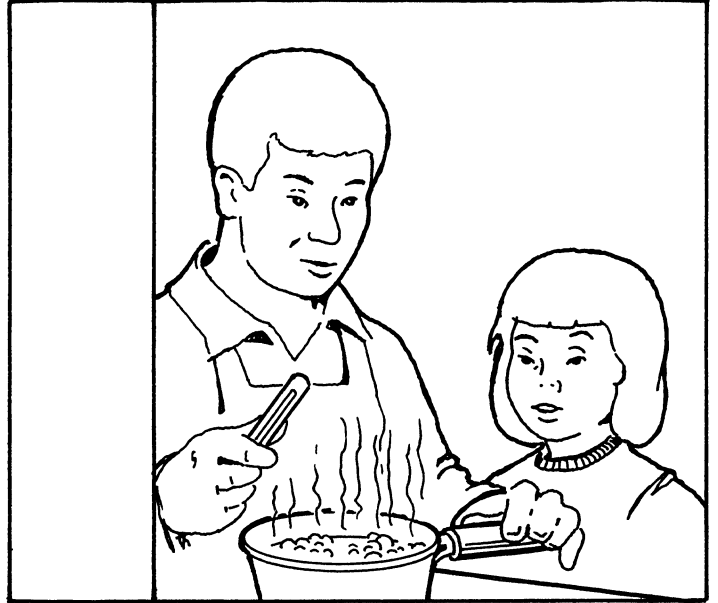
Water freezes here
at 0°C , or 32°F .



1. Circle your answer: Does the thermometer show that the temperature is warm or cool? warm cool
2. Our bodies have a temperature of almost 99°F . Draw a line on the thermometer to show where 99°F is.
3. At what temperature does water freeze? _____
4. Circle your answer: This thermometer can measure the temperature of boiling water. yes no

Understanding Temperature

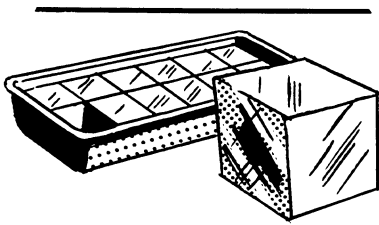
Cut out the big thermometers at the bottom of the page. Paste each one by the picture with the right temperature for that thermometer.



Heat Changes Things

Heat can change a solid into a liquid. Heat can also change a liquid into a gas.

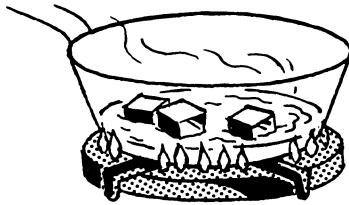
solid



ice cube

Molecules are close together and move slowly.

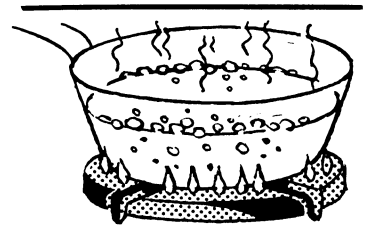
liquid



water

Molecules are farther apart and move faster.

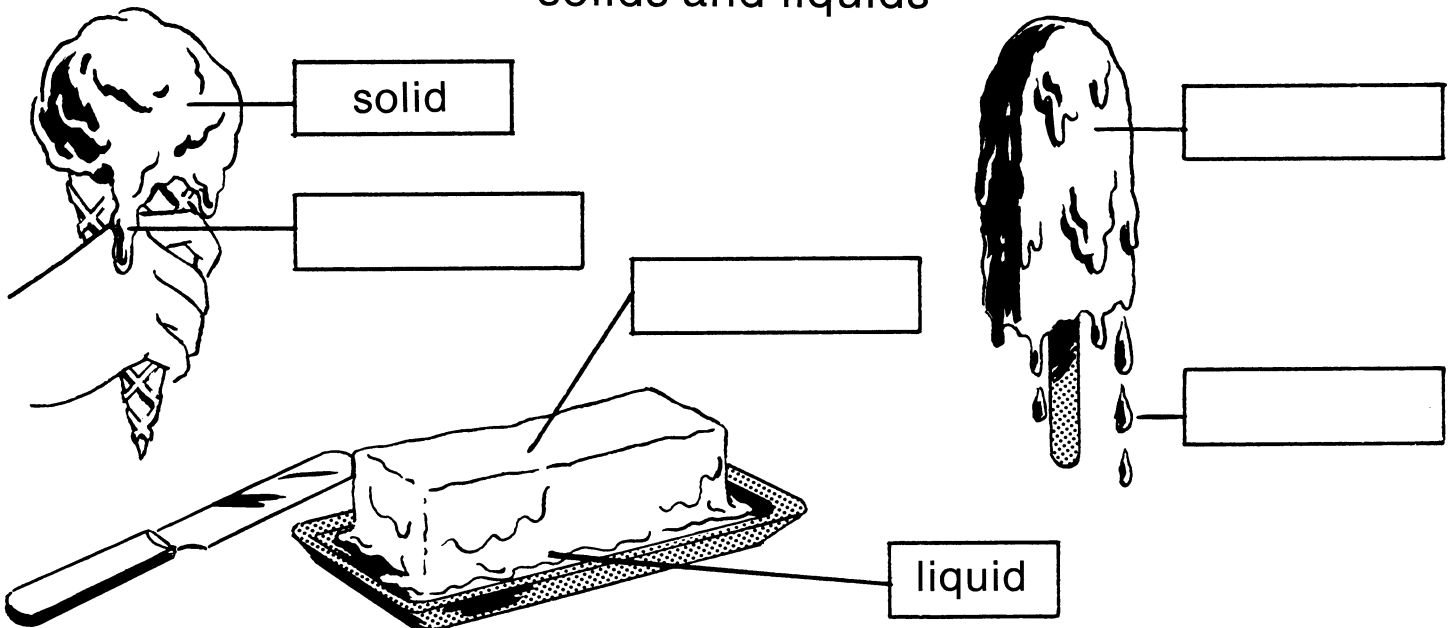
gas



steam

Molecules are very far apart and move very fast.

solids and liquids



1. In the top picture, tell if the temperature of the solid is hot or cold. Tell if the temperature of the gas is hot or cold. Write your answers on the line above each picture.
2. The molecules in a _____ move very fast.
3. In the bottom pictures, write *solid* or *liquid* in the correct boxes.
4. Circle your answer: Warm air can change solids into liquids. yes no