4. Taking Temperature

For the Teacher

What is a normal range of temperature?
We usually think of 98.6°F (37°C) as a normal body temperature. Actually, an individual’s body temperature may actually somewhat above or below this reading. Readings that are not a “perfect” 98.6° are not a cause for concern, unless the temperature reaches 100°F.

It should also be noted that one’s temperature may vary slightly throughout the day. Also, for women, body temperature fluctuates based on the menstrual cycle, usually rising at ovulation.

What is a fever?
Generally, one is considered to have a fever when the oral temperature is 100°F (37.8°C) or higher. Note that for rectal or ear temperature readings, which are generally higher, a reading of 101°F (38.3°C) or higher indicates a fever.

Because of this difference of scale, when calling the health care provider to report a fever, it is important to mention which kind of thermometer was used.

We often think of fever as an illness, but that’s not really the case. MedlinePlus, the online service compiling information from the U.S. National Institutes for Health (NIH) and other government and health agencies, says it well: “Far from being an enemy, [fever] is an important part of the body’s defense against infection.” Bacteria and viruses grow best at 98.6°, and the fever is actually helping to kill them. Therefore, the goal of using such drugs as acetaminophen or aspirin should be to reduce — not eliminate — the fever.

While there are numerous causes of fever, such as cancers, reactions to medications and autoimmune diseases, infection is the most common. In the absence of other problems, it not necessary to contact a health care provider immediately if the fever is low — unless the fever lasts more than 3 days in an adult and children over age 2, or more than 1 day for children under age 2.

When should a health care provider be contacted?

The Mayo Clinic provides the following information:

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Action</th>
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<tbody>
<tr>
<td>97° or lower</td>
<td>Newborns</td>
</tr>
<tr>
<td>100.2° (rectal) or higher</td>
<td>Infants under 90 days</td>
</tr>
<tr>
<td>102° or higher</td>
<td>Babies 3–12 months</td>
</tr>
<tr>
<td>Fever of 103° for 3 days</td>
<td>Everyone</td>
</tr>
</tbody>
</table>

If the fever is low, the health care provider should also be contacted if other symptoms are present, such as a stiff neck, severe headache, nausea or vomiting. Note that if the person is believed to be suffering from heatstroke (s/he has been in the sun, has a fever but is not sweating, and may show signs of confusion), this is a life-threatening emergency, and the individual should be taken to the emergency room.
Sources

www.nlm.nih.gov/medlineplus/ency/article/003090.htm#Definition
www.familydoctor.org
www.nlm.nih.gov/medlineplus/ency/article/001982.htm#Information
www.mayoclinic.com
4. Taking Temperature

Objectives
Learners will:
• Review cold prevention.
• Learn about Fahrenheit scale and taking temperatures.
• Learn about checkups.

Materials Needed
Board or chart paper
Markers
Picture of girl with fever [Teacher only]
Thermometers, Tempadots or Fever Strips
Handouts: 4a (I don’t want a cold [matching]), 4b (Temperature)

Activity 1
Review
Use matching worksheet 4a, “I don’t want a cold. What can I do?” about cold prevention.

Activity 2
Taking Temperature
1. Show the picture of a girl with fever. Ask, “What’s wrong?” [elicit: “She has a fever.”] “What is the woman doing?” [elicit: “taking temperature.”] (You may want to comment on the dangers of mercury in thermometers. Note that digital thermometers are mercury free.)
2. Show a thermometer or picture of a thermometer. Ask, “What is this? [elicit: “thermometer”].
3. Write on board. Learners copy.
4. Ask, “How can I use this?” Get directions for using a thermometer. (Instructions will vary depending on type of thermometer shown.)
Example for an oral digital thermometer:
1. Take the cap off.
2. Clean the thermometer.
3. Press the button.
4. Wait until you see “00” degrees.
5. Put the thermometer under your tongue.
6. Listen for the “beep.”
7. Take the thermometer out.
8. Read the temperature.
9. Wash the thermometer.
10. Put the cap on.
Demonstrate by taking someone’s temperature.
Activity 3  
Reading the Thermometer

1. Write several temperature readings on the board. Explain how to read them (e.g., “ninety-seven point four”).
2. Learners take their temperatures using fever strips or thermometers, if available. If this is not possible, pass out a card with temperature reading (e.g., 99.0°, 97.5°, 98.6°).
3. Pass out the worksheet, “What is your temperature?”
4. Learners take temperature (or read their own number card).
5. Learners write their information on the worksheet (on the blank line).
6. Learners ask five classmates to tell their temperatures, and record it on the worksheet. (Note: Be sure they say their temperatures, rather than just showing the numbers.)

Optional

Work with learners to fill in their highest/lowest temperatures. (Omit if level of learners is too low.)

Activity 4  
Discussion

Should you give Tylenol before going to the clinic or doctor? [No, the health care provider needs to see evidence of fever.] Say: “My child has a fever. Should I give her Tylenol before we go to the doctor or clinic?” Discuss with class. Use Tylenol bottle to help you.

Additional Activities

If you have access to computers, you may wish to visit www.mayoclinic.com/health/thermometer/CC00041&slide=1. Go through the slides and show the learners the different types of thermometers. Discuss each of them.
I don’t want a cold!!! What can I do???

Directions: Match the pictures with the sentences

1. a. Do not go near people with colds (if possible).

2. b. Do not touch your eyes, nose and mouth.

3. c. Clean with a germ-killing disinfectant.

4. d. Use a tissue and throw your tissue away.

e. Wash your hands.
What's your temperature? ..... 

What is your temperature?

Write your temperature here. My temperature is ___________.

Ask your classmates

<table>
<thead>
<tr>
<th>Name of Classmate</th>
<th>Temperature</th>
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<tbody>
<tr>
<td>1.</td>
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<td>2.</td>
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<td>3.</td>
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<td>4.</td>
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<td>5.</td>
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__________________________ had the HIGHEST temperature.

__________________________ had the LOWEST Temperature.
Facts about Fahrenheit (F) and Celsius (C)

The United States uses Fahrenheit for temperature. Most countries use Celsius.

Here are some examples:

- Water freezes at 0 °C OR 32°F
- Room temperature is 20 °C OR 68°F
- Normal body temperature is 37 °C OR 98.6°F
- A very hot day is 40 °C OR 104°F
- Water boils at 100 °C OR 212°F

How can you change the temperature?

°C = (°F - 32) ÷ 1.8

For example: (68°F - 32) ÷ 1.8 = (36) ÷ 1.8 = 20°C

°F = (°C x 1.8) + 32

For example: (20°C x 1.8) + 32 = (36) + 32 = 68°F
Photo courtesy of U.S. Centers for Disease Control and Prevention