1. Complete the table with details about the different kinds of pathogens.

<table>
<thead>
<tr>
<th>Pathogen</th>
<th>Description</th>
<th>Examples of Disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bacteria</td>
<td>a. __________________</td>
<td>b. tetanus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. __________________</td>
</tr>
<tr>
<td></td>
<td>d. __________________</td>
<td>e. common cold</td>
</tr>
<tr>
<td></td>
<td></td>
<td>f. __________________</td>
</tr>
<tr>
<td>Viruses</td>
<td>g. __________________</td>
<td>h. athlete's foot</td>
</tr>
<tr>
<td></td>
<td></td>
<td>i. __________________</td>
</tr>
<tr>
<td>Fungi</td>
<td>j. __________________</td>
<td>k. malaria</td>
</tr>
<tr>
<td></td>
<td></td>
<td>l. __________________</td>
</tr>
<tr>
<td>Protozoans</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. Complete the concept map about how pathogens are spread.

**Pathogens**

are spread by

- a. infected people
- b. ____________________________
- c. ____________________________
- d. ____________________________

through

- e. ____________________________
- f. indirect contact
- g. malaria from mosquitos
- h. shared drinking cups
- i. tetanus from soil
- j. shaking hands
- k. ____________________________
- l. ____________________________

such as

such as

such as
Defenses Against Disease (pp. 552–557)

Physical and Chemical Defenses

1. Complete the table about the body’s first line of defense against pathogens.

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Physical Defense</th>
<th>Chemical Defense</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin</td>
<td>a.</td>
<td>b.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mucous membranes</td>
<td>c. mucus traps</td>
<td>d.</td>
</tr>
<tr>
<td></td>
<td>pathogens</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cilia</td>
<td>e.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saliva and tears</td>
<td>f.</td>
<td>g. contain chemicals</td>
</tr>
<tr>
<td></td>
<td></td>
<td>that attack</td>
</tr>
<tr>
<td></td>
<td></td>
<td>pathogens</td>
</tr>
<tr>
<td>Digestive system</td>
<td>h.</td>
<td>i.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 21-2: Note Taking Guide (continued)

Inflammation

2. In what two ways does inflammation help protect the body?
   a. __________________________________________
      __________________________________________
   b. __________________________________________
      __________________________________________

The Immune System

3. Label the main steps of the immune response in the diagram.
Passive and Active Immunity

4. Compare passive and active immunity by completing the Venn diagram. Write similarities where the circles overlap, and differences on the left and right sides.

**Passive Immunity**

a. ___________________
   ___________________
   ___________________

b. ___________________
   ___________________
   ___________________

**Active Immunity**

d. ___________________
   ___________________
   ___________________

c. ___________________
   ___________________
   ___________________

e. ___________________
   ___________________
   ___________________
Common Infectious Diseases (pp. 558–563)

Bacterial Diseases

Viral Diseases

1. Complete the outline by adding details about common infectious diseases.

   I. Bacterial Diseases

      A. Strep throat
         1. Symptoms _________________________________________________
            _________________________________________________________
         2. Diagnosis ______________________________________________

      B. Lyme disease
         1. Spread by ________________________________________________
         2. Symptoms _________________________________________________
            _________________________________________________________
         3. Protection ______________________________________________

      C. Bacterial meningitis
         1. Description ______________________________________________
         2. Symptoms _________________________________________________
            _________________________________________________________
         3. Severity ________________________________________________

      D. Tuberculosis
         1. Description ______________________________________________
         2. Spread by ________________________________________________
         3. Symptoms _________________________________________________
            _________________________________________________________

      E. Treating bacterial diseases
         1. Treatment ________________________________________________
II. Viral Diseases
   A. The common cold
      1. Description ________________________________________________
      2. Symptoms _________________________________________________
      3. Spread by __________________________________________________
   B. Influenza
      1. Description ________________________________________________
      2. Spread by __________________________________________________
      3. Symptoms _________________________________________________
      4. Prevention ________________________________________________
   C. Pneumonia
      1. People at risk _______________________________________________
      2. Description ________________________________________________
   D. Hepatitis
      1. Description ________________________________________________
      2. Symptoms _________________________________________________
      3. Types ______________________________________________________
   E. Treating viral diseases
      1. Treatment __________________________________________________

Getting Healthy, Staying Healthy

2. For which condition listed below should you seek medical care?
   _____ a. breathing difficulties
   _____ b. a temperature of 99°F for one day

3. Which behavior listed below can help you avoid infectious diseases?
   _____ a. staying up late
   _____ b. cooking and storing foods properly
**Emerging Infectious Diseases** (pp. 566–568)

**What Is an Emerging Disease?**

1. Define what is meant by the term *emerging disease*.
   
   An emerging disease is ____________________________________________
   ___________________________________________________________________
   ___________________________________________________________________

**Why Do Diseases Emerge?**

2. Complete the table with details about the factors responsible for emerging diseases.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact with infected animals</td>
<td>a. __________________________________________________________________</td>
</tr>
<tr>
<td></td>
<td>__________________________________________________________________</td>
</tr>
<tr>
<td>Drug resistance</td>
<td>b. __________________________________________________________________</td>
</tr>
<tr>
<td></td>
<td>__________________________________________________________________</td>
</tr>
<tr>
<td>Lack of immunization</td>
<td>c. __________________________________________________________________</td>
</tr>
<tr>
<td></td>
<td>__________________________________________________________________</td>
</tr>
<tr>
<td>International travel</td>
<td>d. __________________________________________________________________</td>
</tr>
<tr>
<td></td>
<td>__________________________________________________________________</td>
</tr>
<tr>
<td>Global food supply</td>
<td>e. __________________________________________________________________</td>
</tr>
<tr>
<td></td>
<td>__________________________________________________________________</td>
</tr>
</tbody>
</table>