Review:

After watching each chapter in *Food Safety: It’s in Your Hands*, answer the following review questions.

**Chapter 1: What You Can’t See Can Kill You or at Least Make You Very Sick**

1. According to estimates from the Centers for Disease Control, how many Americans contract a foodborne illness each year? 

2. What are some of the most common risky foods linked to foodborne illness? 

3. Which microbes are some of the most common causes of foodborne illness? Where are the microorganisms commonly found?
4. Who has an increased risk of contracting a foodborne illness? ____________________________________________________________
   ____________________________________________________________________________________________________________
   ____________________________________________________________________________________________________________
5. About how many pounds of germs are found in the average human's body? ____________________________________________
   ____________________________________________________________________________________________________________
   ____________________________________________________________________________________________________________

Chapter 2: This is the Way We Wash Our Hands

1. Fill in the blanks:
   _____ % of females and _____ % of males say they wash their hands after using the restroom, but only _____ % of
   females and _____ % of males actually do. _____ % of middle and high school students wash their hands after
   using the restroom. But of those, only _____ % of females and _____ % of male use soap.

2. Why is it important to use soap when you wash your hands? _________________________________________________________
   ____________________________________________________________________________________________________________
   ____________________________________________________________________________________________________________

3. According to the microbiologist, what are the three reasons why antibacterial soap is unnecessary to use?
   ____________________________________________________________________________________________________________
   ____________________________________________________________________________________________________________
   ____________________________________________________________________________________________________________
   ____________________________________________________________________________________________________________
   ____________________________________________________________________________________________________________

4. Explain the steps how to wash your hands. _____________________________________________________________________
   ____________________________________________________________________________________________________________
   ____________________________________________________________________________________________________________
   ____________________________________________________________________________________________________________
   ____________________________________________________________________________________________________________
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5. When should you wash your hands? Fill in the chart below.

<table>
<thead>
<tr>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Chapter 3: What Shalt Not Touch

1. Name two instances where you should separate certain food items to prevent cross-contamination.

__________________________________________________________________________________
__________________________________________________________________________________
__________________________________________________________________________________
__________________________________________________________________________________

2. Why should you not use a wooden cutting board for cutting raw meat?

__________________________________________________________________________________
__________________________________________________________________________________
__________________________________________________________________________________
__________________________________________________________________________________

Chapter 4: Avoid the Danger Zone

1. What is the Danger Zone?

__________________________________________________________________________________
__________________________________________________________________________________
__________________________________________________________________________________
__________________________________________________________________________________

2. What happens to bacteria at these temperatures?

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>32 – 40º F</td>
<td>(refrigerator)</td>
</tr>
<tr>
<td>-20 – 0º F</td>
<td>(freezer)</td>
</tr>
<tr>
<td>140 – 160º F</td>
<td></td>
</tr>
<tr>
<td>160 – 212º F</td>
<td></td>
</tr>
</tbody>
</table>

3. What are the cooking temperatures that need to be reached to kill bacteria in the foods listed in the chart below?

<table>
<thead>
<tr>
<th>Food Description</th>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pork, steak, and roasts</td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td></td>
</tr>
<tr>
<td>Ground meat</td>
<td></td>
</tr>
<tr>
<td>Eggs</td>
<td></td>
</tr>
<tr>
<td>Poultry</td>
<td></td>
</tr>
<tr>
<td>Leftover and casseroles</td>
<td></td>
</tr>
</tbody>
</table>
Chapter 5: Keep It Clean

1. When should you wash fruits and vegetables?____________________________________________________
   ____________________________________________________________________________________________
   ____________________________________________________________________________________________
   ____________________________________________________________________________________________

2. What are some overlooked surfaces to keep clean in your kitchen?________________________________
   ____________________________________________________________________________________________
   ____________________________________________________________________________________________
   ____________________________________________________________________________________________
   ____________________________________________________________________________________________

3. What can you do to prevent your sponge from becoming a breeding ground for bacteria?_______________
   ____________________________________________________________________________________________
   ____________________________________________________________________________________________
   ____________________________________________________________________________________________
   ____________________________________________________________________________________________
Review:

After watching each chapter in Food Safety: It’s in Your Hands, answer the following review questions.

Chapter 1: What You Can’t See Can Kill You or at Least Make You Very Sick

1. According to estimates from the Centers for Disease Control, how many Americans contract a foodborne illness each year? __________ 1 in 6 or about 48 million people contract a foodborne illness annually. 128,000 are hospitalized and 3,000 people die. __________

2. What are some of the most common risky foods linked to foodborne illness? __________ The most risky foods include foods from an animal source like raw meat, poultry, eggs, fish and shellfish, unpasteurized (raw) milk, soft cheeses such as blue cheese, Brie, feta, and queso fresco, and unwashed fruits and vegetables. __________

3. Which microbes are some of the most common causes of foodborne illness? Where are the microorganisms commonly found?

<table>
<thead>
<tr>
<th>Microbe</th>
<th>Common Causes</th>
</tr>
</thead>
<tbody>
<tr>
<td>E. coli</td>
<td>Raw or rare ground beef, contaminated produce, raw milk, contaminated water, raw milk</td>
</tr>
<tr>
<td>Salmonella</td>
<td>Raw meat or poultry, eggs, raw milk</td>
</tr>
<tr>
<td>Listeria</td>
<td>Deli meats, hot dogs, soft cheeses, raw milk</td>
</tr>
<tr>
<td>Norovirus</td>
<td>Contact with an infected person, contact with food or surfaces that an infected person has touched</td>
</tr>
<tr>
<td>Staph</td>
<td>Deli meats, salads like tuna, egg, chicken, or macaroni, cream-filled pastries</td>
</tr>
</tbody>
</table>
4. Who has an increased risk of contracting a foodborne illness?

_People who have a compromised immune system from a chronic disease such as diabetes, pregnant women, young children, and the elderly._

5. About how many pounds of germs are found in the average human’s body?

___ About 3 pounds ___

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### Chapter 2: This is the Way We Wash Our Hands

1. Fill in the blanks:

   - **97** % of females and **92** % of males say they wash their hands after using the restroom, but only
   - **75** % of females and **58** % of males actually do. **50** % of middle and high school students wash their
   hands after using the restroom. But of those, only **33** % of females and **8** % of male use soap.

2. Why is it important to use soap when you wash your hands?

   _Soap is the only substance that is going to eliminate the germs from the surface of your skin. It can disrupt the cell membrane to get inside and kill the germ._

3. According to the microbiologist, what are the three reasons why antibacterial soap is unnecessary to use?

   - **Regular soap has the ability to kill bacteria**
   - **Antibacterial soap can be harsh on the skin and make your skin more susceptible to cracking,**
     which give germs easy entry into your body
   - **Antibacterial soap contributes to antibiotic resistance**

4. Explain the steps how to wash your hands.

   1. **Turn on the faucet warm, running water.**
   2. **Add soap to your hands.**
   3. **Rub your hands together for 20 seconds (about the time it takes to sing the ABC song). Be sure**
     to get the backs of your hands, wrists, between your fingers, fingertips, and thumbs.
   4. **Use a nailbrush or grind your fingertips into your palm if you don’t have one.**
   5. **Rinse and dry your hands with a paper towel or a clean cloth towel.**
   6. **Use the towel to turn off the faucet.**

5. When should you wash your hands? Fill in the chart below.

<table>
<thead>
<tr>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handling food</td>
<td>Handling raw meat, poultry, or unwashed fruits and vegetables</td>
</tr>
<tr>
<td>Eating</td>
<td>Eating or drinking</td>
</tr>
<tr>
<td>Touching ready to eat foods or snacks</td>
<td>Touching animals</td>
</tr>
<tr>
<td></td>
<td>Going to the toilet or changing a baby’s diaper</td>
</tr>
<tr>
<td></td>
<td>Coughing or sneezing</td>
</tr>
<tr>
<td></td>
<td>Getting visible soil on your hands</td>
</tr>
</tbody>
</table>
Chapter 3: What Shalt Not Touch

1. Name two instances where you should separate certain food items to prevent cross-contamination.

   At the grocery store, you should place meat, seafood, and poultry into plastic bags so they don’t drip on fresh produce in your cart.

   At home, you should place any meat at the bottom of the refrigerator so that it can’t drip on fresh produce.

2. Why should you not use a wooden cutting board for cutting raw meat?

   The juices from meat or fish can permeate the surface of the wood and harbor bacteria.

Chapter 4: Avoid the Danger Zone

1. What is the Danger Zone?

   The Danger Zone is the optimum temperature for bacteria to grow – from 40º F – 140º F. It’s above the temperature of a refrigerator, includes room temperature, and is below cooking temperature.

2. What happens to bacteria at these temperatures?

<table>
<thead>
<tr>
<th>Temperature Range</th>
<th>Effect of Bacteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>32 – 40º F (refrigerator)</td>
<td>Bacterial growth slows, but doesn’t stop</td>
</tr>
<tr>
<td>-20 – 0º F (freezer)</td>
<td>Stops most bacterial growth, but doesn’t kill</td>
</tr>
<tr>
<td>140 – 160º F</td>
<td>Stops the growth of most harmful bacteria, but doesn’t kill</td>
</tr>
<tr>
<td>160 – 212º F</td>
<td>Kills most harmful bacteria</td>
</tr>
</tbody>
</table>

3. What are the cooking temperatures that need to be reached to kill bacteria in the foods listed in the chart below?

<table>
<thead>
<tr>
<th>Food</th>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pork, steak, and roasts</td>
<td>145º</td>
</tr>
<tr>
<td>Fish</td>
<td>145º (opaque and flakes easily)</td>
</tr>
<tr>
<td>Ground meat</td>
<td>160º</td>
</tr>
<tr>
<td>Eggs</td>
<td>160º (white and yolk should be firm)</td>
</tr>
<tr>
<td>Poultry</td>
<td>165º</td>
</tr>
<tr>
<td>Leftover and casseroles</td>
<td>165º</td>
</tr>
</tbody>
</table>
Chapter 5: Keep It Clean

1. When should you wash fruits and vegetables?

You should wash fruits and vegetables just before you plan to eat them so that they remain fresh.

2. What are some overlooked surfaces to keep clean in your kitchen?

Door handles • Kitchen faucet handle • Refrigerator door • Light switch

Phone receiver • Washcloths and sponges • Remote control

3. What can you do to prevent your sponge from becoming a breeding ground for bacteria?

Wash out all the food scraps. Wring the sponge to dry thoroughly. Don’t use the sponge to wash a cutting board, especially if it was used to cut raw meat.