WHAT’S ALL THE BUZZ ABOUT? VECTOR-BORNE DISEASES AND CLIMATE CHANGE

Step 1
What is a vector-borne disease? List 3 types of vectors that can transmit disease.

Step 2
What are 5 examples of vector-borne diseases?

Step 3
Fill out the table below for 2 rounds of bites. How many rounds of bites would it take for all the people to become infected? Your teacher will provide you the equations necessary to do the calculations.

<table>
<thead>
<tr>
<th>Round of Bites</th>
<th>Total # People</th>
<th>Total # Infected People</th>
<th>Total # Mosquitoes</th>
<th>Infected Mosquitoes Added</th>
<th>Total # Infected Mosquitoes</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>20</td>
<td>0</td>
<td>7</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>20</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>20</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Step 4
Why did we use syringe barrels to model mosquito bites?

Step 5
Were more or fewer people infected than you expected? Give 2 reasons to explain why the expected number can differ from the observed number of infected people.
Step 6
Why didn’t we test whether the mosquitoes were infected?

Step 7
List 3 ways this experiment does not accurately model mosquito-human interactions.

Step 8
List 3 ways in which weather and climate can affect transmission of vector-borne diseases.