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| --- | --- |
| Distance from sneezer | # Droplets over 5 mm wide |
| **0-21.5cm** |  |
| **21.5-43 cm** |  |
| **43-64.5 cm** |  |
| **64.5-86 cm** |  |
| **86-107.5 cm** |  |
| **107.5-129 cm** |  |

Sneeze Droplet Data and Analysis

**Notes:**  
*What patterns do you notice in where tiny sneeze droplets fell?*

Sneeze Histogram

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Number of sneeze droplets >5 mm |  |  |  |  |  |  |
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| 0-21.5 | 21.5-43 | 43-64.5 | 64.5-86 | 86-107.5 | 107.5-129 |
|  | Distance from sneezer (centimeters) | | | | | |

Conclusion and Evaluation – Sneeze Risk

1. Compare where you found *large* sneeze droplets to your observations of *tiny* sneeze droplets. Does it look like the tiny droplets (<5 mm) traveled as far as the larger ones?
2. Based on your histogram, what is the distance away from a sneezer where you would ***least*** want to leave your notebook or sandwich?
3. If you wanted to advise someone about the ***best*** place to leave their cell phone around a sneezing person, what would you tell them?
4. How did the distribution of large sneeze droplets compare to your casual observations of tiny sneeze droplets? Describe what differences you would expect between the histogram you made and a histogram of tiny sneeze droplets and distance traveled.   
   *Would the total number of droplets be the same, higher, or lower? Which column would be the tallest?*
5. Did any sneeze droplets travel farther than the six pages or off the sides? How would you modify this experimental setup next time to improve your data collection?
6. How do you think this simulated sneeze compares to real human sneezes? You may use both your own observations and the observations of Drs. Bourouiba and Bush from the video in your response.