Name: _____ Date: _____ Class: _____

Acoustic Mirrors Analysis Worksheet

Part 1: Recording Music with Audacity Software

1. Describe your plot spectrum below:

2. While the plot spectrum does not have labels, a graph should have them.
    Based on the information displayed on the spectrum:

    A. What should the x-axis label be?

    B. What should the y-axis label be?

3. The plot spectrum displays a plot of "dB vs. frequency." What is the graph showing?

4. On the plot spectrum, change the axis from linear to log. What is the effect?

Part 2: Recording Music with Audacity Software and the Acoustic Mirror

5. Draw a diagram of the experimental setup.

6. Radius of curvature (C)

   A. What is the radius of curvature of your mirror?

   B. How did you determine the radius of curvature?

7. Determine the focal length of your mirror. Show your calculations.

8. Sketch the plot spectrum below:

9. How does your plot spectrum compare to the graph in Part 1?

Part 3: Adding Effects with Audacity Software

10. Describe the effects you added to a sound file that you saved during this investigation.