**Activity 4.2.1B Analysis of Bird Data**

1. As students present their data, copy it into the table below.

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| Bird | Average Weight of the Male Bird in lbs. | Wingspan in centimeters |
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1. Enter your data into the lists L1 and L2 using the STATS key, 1:edit
2. Make a stats plot. Be sure to set an appropriate window.
3. Does your data appear to be linear? Explain.
4. Obtain a linear regression and record the r value. Does the r value support your visual conclusion in part 4 above? Explain.
5. Now use the STATS key, and select A:PwrReg for Power Regression instead of a linear regression. Write the equation here.

1. Although your graph is not linear you will have an r value. After you study unit 5 you will be able to explain why though the graph is not linear you have an r value. An r value close to 1 or -1 should make us feel pretty comfortable using the regression equation to model the data. Record it here. \_\_\_\_\_\_\_
2. Does it support using a power family equation to model this relationship? Explain.
3. What biological reasons might contribute to longer wingspans so that two bird species might have about the same weight but very different wingspans?