**Body Proportion Activity**

*Part A: Fearsome Femurs and Fourths*

In this activity, you will use your height and femur length to examine the concept of proportion. The femur is approximately 1/4 of a person’s adult height. It is your goal to discover if this is true, and decide how much growth may yet occur for you.

1. Write down the length of your femur and your height on a piece of paper.

2. Can you figure out if your height is one-fourth the length of your femur? You should respond by dividing your height by 4 or by multiplying the femur length by 4. After you have decided on the process to use, perform this operation with their two measurements.

3. Did your results indicate that their femur is 1/4 of your height? If it did not, why do you think so? Could this mean there is more growth in store for you? Perhaps you will want to measure their height and femur length again later on in the year to see if more growth does occur and to see if the proportion changes. What if your femur is 1/4 their total height? Does this mean that you have finished growing? Again, you may wish to take these measurements again to test this proportion study.

*Part B: How Does Your Wingspan Measure Up?*

1. A person’s reach, fingertip to fingertip, or arm span (“wing span”), is about the same as their height. Measure your height and arm span and see how they compare to this fact. Record your findings in the space below.

2. Why or why not do you think your measurements were what they were. What do you think would be a good explanation for this? What if your arm span is longer than your height? Could this mean that you have more growth in store for you? Record your thoughts below.

3. Ms. Albers has a table on the front board with shapes as headings. You need to write your name under one of the three shapes. Write your name under the shape that best depicts your span/height comparison. How would you know if your height fits the square, tall rectangle, or wide rectangle? If your span/height is the same, then you would write their name in the square. A tall rectangle would indicate that your height is taller than their reach. A wide rectangle would indicate that your reach is longer than your height. After all students have put their name under a shape, make a bar graph showing the findings in the space below. What does this mean for the growth of the class?