



**CALIFORNIA STATE SCIENCE FAIR  
2007 PROJECT SUMMARY**

<b>Name(s)</b> Grace I. Ng	<b>Project Number</b> <b>J0317</b>
<b>Project Title</b> <b>Perception vs. Reality: Feeling Fat, Thinking Thin</b>	
<b>Abstract</b> <b>Objectives/Goals</b> Due to pressure from peers and images from the media, youths and adolescents are striving for thinness beyond the normal limits. Correct perceptions of body weight for middle school students are critical as they start adolescence. This research is trying to find out if weight perceptions among middle school girls and boys are different. <b>Methods/Materials</b> Randomly choose one class each, from fifth to eighth grade, to participate in a survey using a custom designed questionnaire to collect information about the participant's grade level, gender, age, their perceived weight, their perceived height, and their weight perception category. The actual weight and height were measured. Comparisons were made to the actual and calculated body weights. <b>Results</b> Based on the BMI calculated from the actual weight and height; Overall, 18% of the girls are overweight; while 27% of boys are overweight. Of the 20 girls categorized as overweight, only 50% girls recognized that they were overweight. Of the 26 boys categorized as overweight, 46% boys recognized that they were overweight.  52% of girls and 45% of boys are of the right weight. 32% of the girls overestimated their weight while only 22% of the male participants overestimated. On the other hand, only 13% of the girls underestimated themselves while 20% of the boys who completed the questionnaire underestimated. The number of students who had the right actual body weight increased as grade level moved up. However, the number of students who perceived that they have the right body weight decreased as the grade level went up. <b>Conclusions/Discussion</b> Girls tend to overestimate their body weight while boys are more likely to underestimate their body weight. A larger portion of the girls than the boys perceived themselves as just right or overweight, but they were actually underweight. In reverse, there were a higher proportion of boys than girls who were of overweight, but saw themselves as just right. Girls have a slightly lower realistic perception of their body weight than boys. Although more students in upper grade have the right actual body weight; yet fewer students in the upper grade perceive they have the right body weight. Girls in upper grade levels tended to overestimate more than those in the lower grades. The boys had a very similar trend even though they are less likely to overestimate than the girls.	
<b>Summary Statement</b> Weight perceptions among middle school girls and boys.	
<b>Help Received</b> Thanks to my school teachers, Miss Hensley, Mrs. Ashmore, and Mrs. Reed for allowing me to carry out the survey on their classes; my parents in giving helpful suggestions; my sister for her inspiration and help on the display board; my brother for encouragement.	