



**CALIFORNIA STATE SCIENCE FAIR  
2011 PROJECT SUMMARY**

<b>Name(s)</b> Amy Lee; Tommy Wooding	<b>Project Number</b> <b>S0423</b>
<b>Project Title</b> <b>Is a Picture Worth a Thousand Words?</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The objective of these experiments is to see if illustrations help enhance a child's reading and/or listening comprehension, and if so which type of child (struggling reader, average reader, or advanced reader), as categorized by the teacher, will benefit the most from the illustrations.</p> <p><b>Methods/Materials</b> For the reading comprehension we will give the child a passage without illustrations to read and then a short test. Next the child will read a passage with illustration and a short test to follow. We will test students in fourth, fifth, sixth, and seventh grade. For the listening comprehension we will test first through fifth graders. We will go to each class and read a short story with illustrations and give them a test, we will then read a story without illustration and give them a short test. We then analyze the results.</p> <p><b>Results</b> Our hypothesis was supported. Illustrations do enhance a student's test scores. The differences in test scores in each grade and category of students were larger than the variance in test scores. The illustrations improved the struggling students' comprehension the most. The illustrations also improved the average students' comprehension, but not as greatly. Advanced students' comprehension was only improved modestly.</p> <p><b>Conclusions/Discussion</b> Illustrations do enhance a student's reading and listening comprehension skills. We noticed that the younger students' scores are heavily affected by illustrations. A student's ability to visualize written material plays a large role in the student's success in school. The advanced students have developed the skill to visualize, which the struggling students have not.</p>	
<b>Summary Statement</b> This project investigates whether illustrations enhance reading and or listening comprehension to elementary and middle school students.	
<b>Help Received</b> Gateway Elementary School and James Monroe Middle School allowed us to test the students.	