



**CALIFORNIA STATE SCIENCE FAIR  
2005 PROJECT SUMMARY**

<b>Name(s)</b> <b>Shiri Bogomolny</b>	<b>Project Number</b> <b>J1003</b>
<b>Project Title</b> <b>How Fibonacci Is Your Face?</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The greater the numbers are in the Fibonacci sequence, the closer their ratios are to the perfect proportion. Based on that fact, the purpose of the project was to find out if such was true with the divine proportions on the face. This investigation was also completed to see if people known as #beautiful# had better proportions than average people. If this was the case, then the divine proportion could be incorporated into plastic and reconstructive surgery in order to improve it. <b>Methods/Materials</b> Twenty males and twenty females of each age group were gathered for testing. The age groups were: 5-7 years, 16-18 years, and 40-60 years. Ten pictures of actors and ten pictures of actresses were also tested. Pictures were taken of all the subjects from one meter away, and the following measurements were taken from each picture: the distance from the nose tip to the chin, the distance from the lips to the chin, the length of the lips, and the width of the nose. In order to get the ratios, the distance from the nose tip to the chin was divided by the distance from the lips to the chin, and the length of the lips was divided by the width of the nose. <b>Results</b> The Actors had the best proportions out of all. The teenagers had the second closest-to-perfect ratio for the nose tip-chin/lips to chin and the children had the second closest-to-perfect ratio for the lips/ chin proportion. <b>Conclusions/Discussion</b> The Fibonacci ratio could improve reconstructive surgery.	
<b>Summary Statement</b> The project was done to test at what age the face was closest to having Fibonacci proportions, and if actors known as "beautiful" really had better proportions than regular people.	
<b>Help Received</b> Mother helped me choose colors for my display and helped me buy all my display materials; dad helped me with ideas	