



**CALIFORNIA SCIENCE & ENGINEERING FAIR
2018 PROJECT SUMMARY**

Name(s) Jennifer Cruz; Jenifer Najera	Project Number 38789
Project Title Impact Force of Martial Arts	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective of this study is to measure the force of Taekwondo strikes between one experienced and one inexperienced person with similar body mass.</p> <p>Methods/Materials Two wood cutting boards, hot glue gun, glue sticks, ruler, five springs (3.2in), slow-motion camera and a 1.5kg weight. Build a board with all these materials to measure out the force of each Martial Art strike.</p> <p>Results The trained person in Taekwondo has more force in each strike than the untrained person.</p> <p>Conclusions/Discussion The trained person in Taekwondo had more force in each strike even though both female test subjects had similar body mass.</p>	
Summary Statement A board was created to measure the force of Taekwondo strikes.	
Help Received Our science teacher gave us ideas of some different types of boards to build.	