



CALIFORNIA SCIENCE & ENGINEERING FAIR 2019 PROJECT SUMMARY

Name(s) Malia Walker	Project Number J2026
Project Title Heat Conductivity: A Study of Baking Sheets	
<p style="text-align: center;">Abstract</p> <p>Objectives My purpose for this experiment was to examine how and why the heat conductivity in different baking sheets affects the outcome of baking.</p> <p>Methods I made biscuits and two different chocolate chip cookie recipes on 8 different baking sheets: Non-stick, Aluminum, Stainless Steel, Insulated, Aluminized Steel, Copper, Ceramic, and glass. The variables I controlled were the temperature (375 degrees Fahrenheit for cookies, 350 Fahrenheit for biscuits), size of baked good (one-ounce scoop for cookies, biscuits were 2.04 ounces), time baked (10 minutes for cookies, 13 for biscuits), and the number on the sheet (four for cookies, two for biscuits).</p> <p>Results My results showed that baked goods on sheets with a higher conductivity are over baked, while ones with lower conductivity are underbaked. Specifically, non-stick produced the darkest baked goods, glass resulted in the lightest baked goods, and aluminized steel resulted in the most golden baked goods.</p> <p>Conclusions Knowing the heat conductivity of baking sheets is important in a real-life situation because you need to be aware of what sheets you are baking with to achieve consistently well-baked goods.</p>	
Summary Statement I showed that the heat conductivity of different baking sheets affects baked goods.	
Help Received None. I completed the experiment and project on my own.	