

CALIFORNIA SCIENCE & ENGINEERING FAIR 2019 PROJECT SUMMARY

Name(s) Project Number

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Project Title

Cutting Board Bacteria

Abstract

Objectives

The objective of this study is to find out what type of cutting board would have the least bacteria.

Methods

Cutting boards: Wood, Bamboo Wood, Plastic, Glass, Petri dishes, Sterile Swab, Incubator. Swab cutting boards and then swab onto Petri dish. Incubate for 5 days to look at bacteria growth.

Results

The plastic cutting board had an average growth of 227.33mm² after 5 days. 0.33mm² for Wood, 3.5mm² for Bamboo, and 0mm² for glass. Glass cutting boards did the best with no bacteria growth.

Conclusions

Glass cutting boards are most resistant to bacteria rather than plastic, wood and bamboo wood. Plastic had the most growth of bacteria. Comparing the bamboo and wood cutting boards to the plastic cutting boards, the bamboo and wood are more sanitary.

Summary Statement

I swabbed different types of cutting boards and learned that a glass cutting board is the most sanitary type of cutting board.

Help Received

I swabbed the cutting boards and incubated the Petri dishes myself. My neighbors and family members gave me their consent to use their cutting boards. My mother paid for all materials and guided me to using Excel. My teacher, Mrs. Conrad, allowed me to use her incubator.