

CALIFORNIA STATE SCIENCE FAIR 2017 PROJECT SUMMARY

Name(s)

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Project Number

J1109

Project Title

Does Recycled Paper or Non-Recycled Paper Biodegrade Faster?

Abstract

Objectives/Goals

The objective of my science fair project was to determine whether recycled or non recycled paper would biodegrade faster and how moisture will affect the process.

Methods/Materials

I purchased recycled and non recycled products for each type of paper: binder paper, napkins, bath tissue, and paper towels. I then massed them in grams with an extremely fine scale. Next I buried the sheets of paper that would be dry. Then I repeated that step in soil that was kept moist, left all the papers buried for three months, and watered the pots that needed water. At the end of the three months I dug up all the papers, took photographs, and the mass of each.

Results

All materials in the wet soil, whether they were non recycled or recycled, biodegraded 100%. Both recycled and non recycled bath tissue and paper napkins biodegraded completely. The non recycled binder paper with no water biodegraded 50.39% and the recycled binder paper with no water biodegraded 50.77%. Non recycled paper towel with no water biodegraded 76.76% and the recycled paper towel with no water biodegraded 68.60%. Based to my findings, the recycled paper products did not lose more mass than the non recycled paper products.

Conclusions/Discussion

Both recycled and non-recycled paper seem to biodegrade the same and does not have a huge affect on the earth. My hypothesis that wet soil would make products biodegrade quicker, seems to be correct.

Summary Statement

I conducted an experiment to determine if recyled or non-recyled paper products affect how quickly paper biodegrades, I found that there is not a significant difference between recycled and non-recyled paper in biodegration.

Help Received

I did not receive any help. I researced biodegradation of paper and performed the experiment on my own.