

Experiment 2.2: Comparing Starch and Smaller Carbohydrates

Data:

The potato slice turned dark blue where the iodine touched it

The apple slice turned light brown where the iodine touched it

The sugar turned light brown where the iodine touched it

The flour turned dark blue where the iodine touched it

The outside of the marshmallow turned dark blue where the iodine touched it, but the inside turned light brown where the iodine touched it

Summary:

In this experiment, I put a small slice of potato and apple on a plate. I also put $\frac{1}{4}$ teaspoon of sugar in a pile on the plate, $\frac{1}{4}$ teaspoon of flour in a pile on the plate, and half of a marshmallow on the plate.

I then added a drop of iodine to each sample. For the marshmallow slice, I put the iodine on both the outside and inside. I observed what happened in each case.

Conclusion:

Iodine reacts with starch to turn dark blue. However, it does not react with smaller carbohydrates. Thus, it reacted with the potato, flour, and outside of the marshmallow, because those contain starch. The other samples contain carbohydrates, but they are smaller molecules, so the iodine didn't react with them, remaining brown.