

Effectiveness of detergents

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INTRODUCTION AND AIM OF EXPERIMENT

Introduction - Detergents are used mainly to wash the dirt away from our clothes. Some detergents can remove some stains more effectively than others. This is because the detergents may contain enzymes to aid in the removal of stains.

Aim of the experiment - Investigate the effectiveness of the different types of detergent in the removal of chocolate sauce stain on the cloth

EXPERIMENTAL PROCEDURES

1. Add food stains on different cloths
2. Leave the cloth with stains to dry
3. Place each cloth on 1 petri dish each
4. Label the cloths as the detergents
5. Add diluted detergent to the respective cloth
6. Scrub in one direction using toothbrush
7. Place under running water to remove the excess detergent and wring dry
8. Repeat steps 5-7 with other cloths
9. Add water to cloth labelled as water
10. Repeat steps 6-7 for cloth labelled water
11. Hang all cloths and leave them to dry
12. Compare all cloths to control cloth



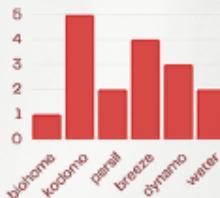
RESULTS

Cloths after washing



Colour intensity of stain after washing

On a scale of 1 – 5, 1 being the lightest stain intensity and 5 being the darkest stain intensity



ANALYSIS

Comparing all the stains after washing, the stain that was washed with Biohome is the lightest in colour and therefore Biohome is the most effective detergent. The stain that was washed with Kodomo was the darkest in colour and therefore Kodomo is the least effective detergent

CONCLUSION AND DISCUSSION

BIOHOME

Biohome is observed to be the most effective detergent in this experiment. But why is that so? Through research, Biohome is known to contain natural biodegradable bio-enzyme that replaces traditional chemical ingredients like man-made surfactants and builders in our environmentally friendly detergent that helps to break down stains and prevent bad odour at low wash temperatures. Biohome also has an innovative lipid enhancer developed in Germany. This suggests the reason why Biohome was the most effective detergent as chocolate contains lots of fat which can be removed in the presence of a detergent with a lipid enhancer.

KODOMO

However, Kodomo is observed to be the least effective detergent in this experiment. Through research, Kodomo is specially developed to remove milk, urine and faecal stains effectively from babywear. Chocolate contains more fats than milk. Since Kodomo specialises in removing stains of milk and other types of stains which differ in the kind of nutrients that chocolate contains, Kodomo is the least effective detergent as it had the most intense colour intensity after washing as compared to the other cloths.

AREAS OF IMPROVEMENT

- Measure the volume (ML) of chocolate sauce being put onto each cloth rather than adding 5 droplets as each droplet may differ in volume
- Use 6 different toothbrushes for the 6 different stains to avoid the enzymes from contaminating another detergent
- Repeat the experiment 3 more times for a more reliable result