

CBA1 Extended Experimental Investigation

HOW TO REMOVE TAN STAINS FROM TOWELS

SCIENCE CBA

WHY I PICKED THIS EXPERIMENT

I was thinking of different ideas to do for my cba I knew I wanted to do something on beauty and it clicked all my mam's white towels are now orange!! I knew I should do a useful project on how to remove fake tan stains out of my beautiful white towels!!



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HYPOTHESIS

If I put a towel with tan stains into warm water and washing powder the tan will remove the best because washing powder is made for removing stains !

1. Forms a testable hypothesis although not clearly explained.

BACKGROUND RESEARCH

I asked my friends what their mam's use to get the tan out of the towels for some ideas on what to use, my list was :

- Washing powder
- Coco brown tan eraser (for skin)
- Vinegar

Extra .. I was going to use lemon juice but it and vinegar both had low pH so there would be no point !

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SAFETY

- I wore a lab jacket
- I wore safety goggles
- I used gloves while scrubbing the tan off
- We had adult supervision



2. Pays attention to safety

WHAT I NEEDED

- Coco brown fake tan (extra dark)
- One white towel
- Water bath
- 4 large containers
- Coco brown tan eraser
- Washing powder
- Vinegar
- Scissors
- Timer
- Graduated cylinder



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METHOD - WASHING POWDER

- Spread the tan evenly across the towel and let it set overnight
- Cut the towel into 4 even squares
- Turn your waterbath onto 45° and let it heat up
- Pour 1 litre of the warm water into a container and set the container into the water bath (to keep temp the same)
- Add one spoonful of the washing powder to the water
- Put one square of the towel into the water and scrub for 5 minutes



3. Describes a safe method used to collect data - some of the steps are understandable but lack detail

METHOD - VINEGAR

- Get another container and fill it with one litre of water
- Put the container into the water bath
- Put one spoonful of the vinegar into the water
- Put one square of the towel into the water and scrub for 5 minutes



4. Describes method used to collect data - photograph enhances method

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METHOD - TAN ERASER

- Get another container and fill it with one litre of the water
- Place the container in the waterbath
- Put one spoonful of tan eraser into the water
- Put one square of the towel into the water and scrub for 5 min



5. Describes method used to collect data - photograph enhances the method

METHOD - COLD WATER AND TAN ERASER

- See which one worked the best in this case it was the tan eraser
 - Get another container and fill it with one litre of COLD (tap) water
 - Put one spoonful of the tan eraser into the water
 - Put one square of the towel into the water bath and scrub for 5 minutes
- And you're finished !!



6. Describes method used to collect data - photograph enhances the method

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RESULTS

- My hypothesis was wrong
- Warm water and the tan eraser removed the tan the best – went fully white !!
- Then tan eraser and cold water – went the slightest bit pink could barely see it
- Then washing powder – went a slightly lighter pink than the vinegar but all tan was removed
- Then vinegar – went a pink colour but all the tan was removed

6. Refers back to hypothesis

7. States a relationship between the variables

RESULTS



Tan eraser and cold water tan eraser vinegar washing powder

8. Uses an informative representation of the results

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STRENGTHS VS WEAKNESSES

- Strengths:

Tan was removed

- Weaknesses

Some of the towels went pink

Extra :The reason the washing powder went pick was because of the bleach !!

9. States limitations although they are not explored

RELIABILITY AND FAIRNESS

- Same amount of water
- Same amount of change
- Same temp water
- Same amount of time in the water
- Same amount of tan

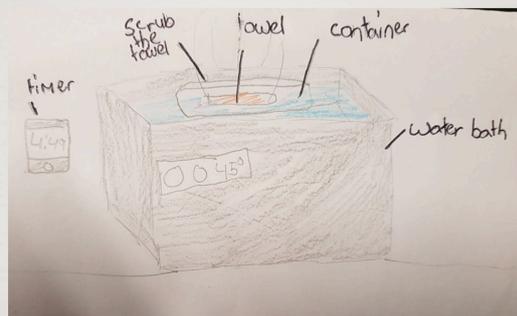
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VARIABLES

Independent - tan eraser , washing powder, vinegar ,cold water

Dependent –The colour of the towels

LABELED DIAGRAM



10. Labeled diagram enhances the method which is reproducible

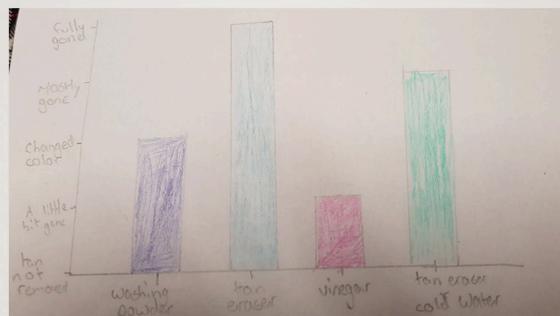
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TABLE OF RESULTS

Change	Colour	To :
Tan eraser	Tan colour	White
Washing powder	Tan colour	Pink
Vinegar	Tan colour	Light pink
Tan eraser + cold water	Tan colour	Almost white

11. Displays data on simple charts

BAR CHART



12. An informative chart for displaying results

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MY EXPERIMENTS USE IN SOCIETY

- This project is really useful for
- Most students
- The students' parents
- Anyone who is going out for an event

They won't ruin their towels anymore and no angry mams !

CONCLUSION

- My hypothesis was proven wrong !

Tan eraser worked the best to remove the tan from the towel !!!

And washing powder actually was the worse it was almost hot pink !

Now I am going to use this every time I put tan on !!

13. Draws a conclusion based on data collected

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POST INVESTIGATION REFLECTION

- What worked well ?

our teamwork and communication worked very well during this experiment

- What would I do differently if doing this investigation again ?

I would to it 3 times for accuracy and use 2 or 3 different tan brands

- What have I learned from this experiment ?

I learned from now on I will use tan eraser to remove the tan stains from my towels and not to use washing powder because it makes your towels pink !

OVERALL JUDGEMENT



IN LINE WITH EXPECTATIONS