What paper towel is the strongest

Grade 4

Introduction

Paper towels are used every day to clean up spills.

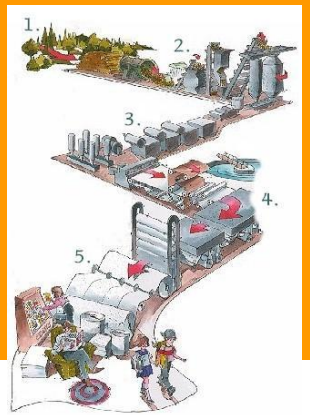
Some paper towels seem stronger than others, especially when wet.

I wanted to find out which brand of paper towel is strongest when wet.

I tested 4 different paper towel brands to see which one could hold the most weight before tearing.

How are paper towels made?

- Traditional paper towels start their lives as trees they are made from virgin wood pulp
- The production process involves cutting trees down to make thicker paper towels
- Hardwood trees like oak maple and soft wood trees like pine and fir are used to make fresh wood pulp.



Hypothesis

If I test different paper towel brands then some will hold more weight when wet than others.

I predict that Bounty is the strongest paper towel when wet.

Materials

- 4 different paper towel brands
- Water
- ¾ Measuring cup
- Weight
- Hooks

Procedure

- 1. Cut one equal-sized sheet from each paper towel brand.
- 2. Measure the same amount of water for each towel.
- 3. Soak each towel in water.
- 4. Hang the wet towel using weightless clips.
- 5. Add weights one at a time to the center.
- 6. Count how many weights the towel holds before tearing.
- 7. Record results.

Test factors

Different brands of paper towels

Number of weights before tearing

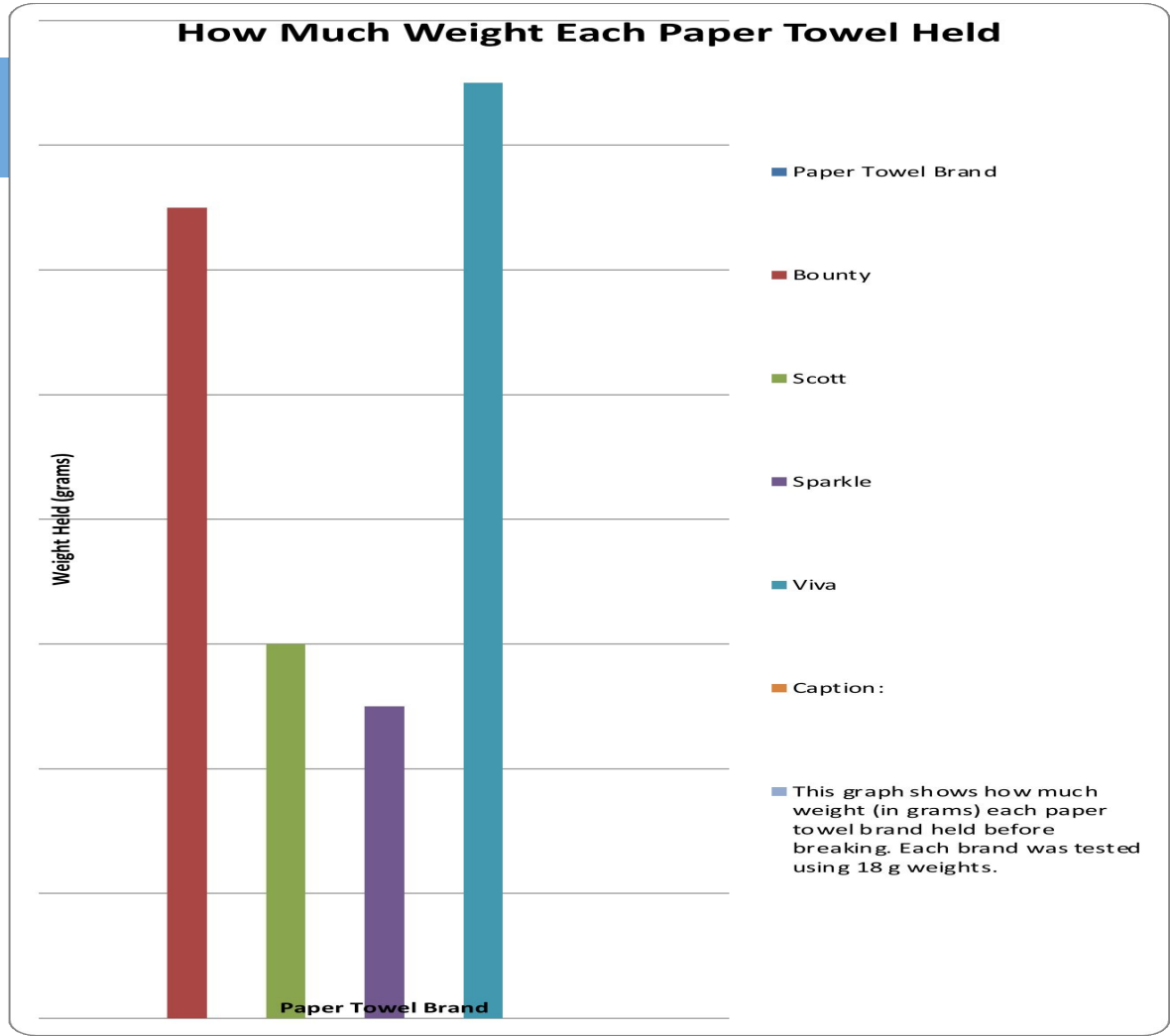
Same towel size

Same amount of water

Results- Hang test

- I used weightless clips on both ends of the paper towels and used a small weightless bag on the other end of the paper towel and began adding 10g weights at a time until the paper towel broke.

Results-Graph



Discussion

The thicker paper towels held more weight when wet.

Some towels absorbed the water differently, this may have affected results.

Viva was the strongest

Conclusion

- The strongest paper towel brand was Viva.
- My hypothesis was incorrect because I thought bounty was the strongest but Viva is stronger.

Implications & Future Research

- This experiment helps people choose better paper towels.
- Test more paper towel brands
- Test strength when dry
- Test how much water each towel absorbs

Works cited

Paper towel package information

https://blog.lddavis.com/paper-towel-manufacturing-with-biodegradable-glue?hs_amp=true

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Any questions?

Thank
You