

## Paper Towel Experiment

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### Which is the Most Absorbent?

The Paper Towel Experiment is a project about which type of paper can absorb more water.



### Paper Towel Experiment

In every store, big or small, there are numerous brands of paper towels available, each claiming to be the best, the most absorbent or the cheapest. How do we prove or disprove these claims? How do we work out which paper towels are truly great and which are almost entirely useless?

We have all seen advertisements where two brands of paper towels are compared by observing how quickly or thoroughly they suck up a mysterious blue liquid or by wiping up some muddy footprints from their kitchen floor.

This, as we know, is not very scientific - there are no figures, no proof and little truth.

Here we are going to show you how to conduct an experiment to test one of these claims: the absorbency of paper towels.



The banner features a white laboratory flask icon with a flame on top, positioned to the left of the word "EXPLORABLE" in a bold, white, sans-serif font. Below "EXPLORABLE" is the phrase "Quiz Time!" in a white, cursive script font. The background is a solid orange color. Below the text are three white-bordered rectangular boxes. The first box contains a black and white photograph of a pair of red roller skates on a wooden deck, with the text "Quiz: Psychology 101 Part 2" below it. The second box contains a photograph of a fan of colorful pens, with the text "Quiz: Psychology 101 Part 2" below it. The third box contains a photograph of a Ferris wheel at sunset, with the text "Quiz: Flags in Europe" below it. To the right of these boxes is a white text link that says "See all quizzes =>".

## Some Facts About Kitchen Towel

- Paper towels were invented by Arthur Scott in Philadelphia, USA, in around 1900. From humble beginnings, paper kitchen towels have become a billion dollar industry.
- Paper towels are often made from post consumer recycled paper fiber, requiring fewer trees being cut down and using up to 50% less energy.

## Performing the Paper Towel Experiment

### Hypothesis

“More expensive brands of paper towel are more absorbent.”

### What You Will Need for the Paper Towel Experiment

- At least four brands of absorbent paper towel
- A stopwatch
- A beaker
- A graduated cylinder
- A funnel

### Method

1. Fill the beaker up with exactly 200 ml of water
2. Take a sheet of the first brand of towel.
3. Fold and insert into the water. As you dip the towel into the water, start your stopwatch.
4. After 20 seconds, remove the towel from the beaker and squeeze as much water as you can out of the towel in to the graduated cylinder using the funnel. Make a note of the volume extracted
5. Repeat 5 times for each brand and note the results in your data table. You must make sure that each sheet is folded in exactly the same way for the experiment to be constant and correct.
6. Write down the results for each brand in your notebook.

## Results

Work out an average for each result and write down in a table.

Plot all of your results onto a simple bar graph like the one below; you can do this on a computer or you can use graph paper and pencils.

This will allow you to show which brand of paper towel is the most absorbent and which is truly awful.

## Problems and Further Experimentation

Of course, this is a very simple experiment and it does have some limitations; you are testing only one reason why people choose a certain brand.

Some brands might be excellent at soaking up spills but are very expensive. Maybe some brands are not as good at soaking up water but are better at soaking up other liquids like milk or cooking oil.

When a consumer buys paper towels, they are not just looking for absorbency. Price, softness, availability, number of sheets on a roll, and strength are all important factors when buying a roll of kitchen towel.

Perhaps you could [design an experiment](#) [1] to rate the strength and softness, or try and calculate how much each towel costs per sheet.

Paper towel manufacturers spend millions of dollars every year but, with a few simple experiments, you can find out which brands truly are the best.

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**Source URL:** <https://verify.explorable.com/paper-towel-experiment>

### Links

[1] <https://verify.explorable.com/design-of-experiment>