Question- Which detergent will clean out the most stains on our shirts?

Logbook

First trials:

tide and ketchup:

on January 1, 2021, at 3:00 p.m. we tested tide and ketchup. We started with the t-shirt. It was a plain white, cotton shirt. The ketchup was clear bright red and when squirted onto the t-shirt the ketchup smelt like a sharp tomato scent, as we rubbed it in the ketchup absorbed into the shirt leaving a big, wide cherry-colored stain.

The Tide detergent was liquidy and had a violet-blue color. as we poured it onto the shirt it spread all over the spot and further. when the detergent was rubbed into the ketchup it turned sticky and had a somewhat unpleasant smell. it was also a brown color.

when the shirt was washed out with lukewarm water it left a very soft and light red stain (about 99% of the stain was gone). this stain was not really visible meaning the shirt was mostly back to the same white color.

tide and coffee:

on January 1, 2021, at 3:30 p.m. we tested coffee, the coffee powder was a dark brown color and was a chocky dust. as mixed into the clear water the coffee powder lightened to a still dark but somewhat light-colored brown. this liquid smelt strongly like coffee beans.

as the coffee was poured onto the t-shirt it was absorbed and turned into a light cream brown.

When the coffee was mixed with the detergent, the coffee greatly influenced its dark color as it mixed into the detergent. this mixture didn't have a great smell but it wasn't as unpleasant either.

when the shirt was washed out with the not too hot and not too cold water it left no stain at all. The coffee spot was gone and we had a clear white t-shirt.

tide and green tea:

on January 1, 2021, at 4:00 p.m. we tested green tea. The green tea bag had a shear packaging holding the green tea leaves in it. The green tea was a dark musty green color when it mixed in with the clear water. The green tea was somewhat clear. it also had no definite smell. Some other things I saw was that when the green tea was poured onto the shirt it was all soaked up quite fast. leaving a big brown stain on the shirt.

when the shirt was washed out with lukewarm water no stain was left only a clean white tee.

Trial 2-

On January 2, 2021, at around 5:00 p.m. we tested tide and ketchup trial 2:

The ketchup was gooey and sticky as we poured it out. it splattered onto the white shirt and as it absorbed it slowly it created a large red stain. This stain spread further than expected. as we poured the gel-like detergent on the t-shirt, it turned the blue color of the detergent on the shirt. we then washed it out with lukewarm water, the stain started to washout. After a couple of minutes, we noticed the stain was almost all gone. (98% of the stain was gone)

on January 2, 2021, at around 5:30 p.m. we tested tide and coffee trials 2:

The coffee was dark and had a very strong smell. it was liquidy and when poured onto the clean t-shirt made a mess creating a large cocoa-colored stain. this stain leaked down to layer 2 of the shirt. as I added Tide the stain was soon all covered in it. as I rubbed it in it created small bubbles. When washed out the shirt came back to its original white color. (100% of the stain was gone)

On January 2, 2021, at around 6:00 p.m. we tested tide and green tea trial 3:

The green tea had no smell at all. as I poured it onto the shirt it was quickly absorbed with a similar-sized stain as the first one. when we poured the detergent it was also absorbed in the shirt.

we washed it out with the warm water and the stain was all gone. (100% of the stain was gone)

Trial 3-

On January 3, 2021 at 12:00 p.m. we tested Tide and ketchup trial 3:

on the last test mostly everything went like test 2. the bright ketchup

squirted onto the white shirt. it slowly absorbed into the shirt and when the detergent was added it turned into a dark mixture. when washed out though some of the stain got out. (this was 96% of the stain gone)

On January 3, 2021 at 12:45 p.m. we tested Tide and coffee trial 3:

The final test of coffee was repeated and the results/observations were also all repeated.

On January 3, 2021 at around 1:30 p.m. we tested Tide and green tea trial 3:

Just like coffee the test was repeated and was just like trial 1 and 2 which caused the results and observations to be similar as well.

Trial 1- Day 1 Persil and ketchup

On January 4th 2021 at 4:30 pm we tested the detergent brand Persil and how much of the stain ketchup. We observed that first before we poured the detergent and substance on it was clearly bright white with no stains on the shirt,after we put 15 Ml of ketchup. The ketchup was liquidity and was dark red with not many lumps. we left it on for about 5 minutes then we put the detergent Persil and it was dark blue, we had left it for about 3 minutes. After we washed it with not too cold either not too hot water. When washed the stain had fairly gotten removed. I would probably say 70% of the stain had been removed.

Day 1 of persil and coffee

On january 4th 2021 at 4:45pm we also tested the coffee. Starting off the coffee was dark brown and the t-shirt was plain white with no stain. We then put 15 ml of the coffee in it and let it sit for 5 minutes. To be precise we used a timer. After 5 minutes we washed it for 3 minutes with 15 ml of persil detergent. When washed the stain had been removed but fairly not as much as the previous time. I would say about 61% of the stain had been removed. We are not sure why this happened as we did do the same procedure.

Day 1 of persil and coffee

*On January 4th 2021, at the time 5:00pm we had tested coffee. The appearance of the coffee was the same colour and also the consistency was the same. I had repeated the same procedure as I did for the past trials. ( referring back to trials 1 and 2) we used the same measurements as well. After we had taken all the same measures we had a close look at it. and observed that in the third trial most of the stain had been removed, mostly all of it. We would say about 84% of the coffee stain had been removed;.*

Trial 2- Day 2 of Persil and green tea:

On january 5th at 6:00 pm we had begun to test out how effectively the Persil would clean out the stain of a green tea on a white shirt. The green tea came in a little pack and was not too dark but light green. we had to put that in hot water so we did, and we then later on had putten the green tea on the shirt. We had left it for 5 minutes and yes we did measure before putting it on the shirt, we had put 15 ml of the green tea. After leaving it on we washed this precious stained shirt for 3 minutes with medium hot water. Afterwards we observed how much of the stain had been removed, looking back at it we observed that most part of the stain had been removed. From our perspective about 90% of the stain had been removed.

Day 2 od persil and green tea

On January 5th at 6:20pm we did our second (2nd) trial for the green te. The same procedure had been taken including measuring, time, and also temperatures the shirt was being washed in. When done we took a really close look and made the observation that there was a bit of a green stain left not too much, but not too little as well. Our final rate that we would like to give is that /100%, about 87% of the stain had been removed. We are trying to make an observation on whether the reason could be the temperature might be slightly changed or is it that we did the measuring wrong.

Day 2 of perils and green tea

On january 5th, at 6:35pm was the last day for recording the observations of the green tea being washed with the detergent brand of persil. As mentioned before we had taken the same steps. Meaning nothing has been changed. After we had taken the steps and were done. We noticed that most part of the stan was removed and perhaps this time the most of the stain had been removed. I would say that 96% of the stain had been removed by the detergent brand Perisl.

Trial 3-

Day 3 of testing Persil and coffee

On January 6th 2021, at 3:04 pm we had tested how much of the coffee stain would be removed after washing it with the detergent Persil. We firstly mixed the coffee powder with medium temperature water and we put it on the plain white shirt for 5 minutes and after 5 minutes we washed the stained shirt for 3 minutes. When done we observed how much of the stain was removed. There was a fair bit of the stain that was seen. so we would say about 70% of the stain was removed.

*Day 3 of testing Persil and coffee*

*On January 6th 2021, at 3:15pm we had taken the same steps with the same measurement and time limits for washing and leaving on the stain. When all the steps were done thoughtfully we then began to take a look of how much of the stain was still seen. When seen we observed that 83% of the stain had been removed. This time more of the stain had been removed.*

Day 3 of testing Persil and coffee

On january 6th 2021, at 3:30pm we tested the coffee substance for the third time. As said before the same steps were taken. Once we were done we used our eyesight to see how much of the stain was removed by washing the shirt with the detergent Persil. About 60% of the stain had been removed.