



Pineview Elementary School

Ms. Mims 4th Grade Science Experiment

Topic: What Liquid is Best for Plant Growth?

Purpose:

To determine which liquid will help the most plants grow in comparison to other liquids?

Hypothesis:

- 17 Students thought that water would be the best liquid to use for growth.
- 13 Students thought that soda would be the best liquid to use for growth.
- 10 Students thought that orange juice would be the best liquid to use for growth.

Materials:

- 2 Dixie cups for each group
- 3 tablespoons of soil in each cup
- Micro greens seeds
- Orange juice
- Soda
- Water

Procedures:

1. We filled each cup with soil
2. We planted seeds in each cup
3. One cup got water (our control group - the one we compared everything to)
4. One cup got orange juice (our variable)
5. One cup got soda (our other variable)
6. We watched and measured the plants for 5 days

Data:

Day One: No Growth in any of the cups.

Day Two: No Growth in any of the cups – Orange Juice cup began to smell sour.

Day Three: Some sprouts in the water cups, some red budding in the soda cups, mold began to grow in the Orange Juice Cups

Day Four: Many sprouts in the water cup, one or two sprouts in the soda cups, only mold and one sprout in the Orange Juice cup

Day Five: Mature plants in the water cups, some sprouts in the soda cup and one or two sprouts and mold in the orange juice cups.

Conclusion:

Water grew more plants in the same amount of time than orange juice and soda. Only 17 out of 41 students were correct.



Pineview Elementary School



Ms. Hightower

Topic: Which Toothpaste Cleans the Best?

Purpose:

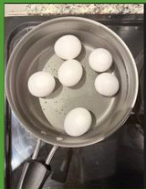
The purpose of this experiment is to determine which toothpaste cleans the best by testing how well each removes stains from boiled eggs.

Hypothesis:

We think Colgate with Baking Soda and Peroxide will clean the stains the best because baking soda and peroxide are strong cleaning ingredients.

Materials:

- Boiled eggs
- Several different toothpaste pastes
- Toothbrushes
- Black tea
- Paper towels
- Timer
- Recording Sheet



Procedures:

1. Boil eggs and soak them in tea overnight to stain them.
2. Choose different toothpaste to test.
3. Brush each stained egg with one toothpaste for 1 minute.
4. Rinse and fry eggs.
5. Compare how clean each egg looks.
6. Record results and decide which toothpaste cleaned best.



Results: After brushing for one minute, Aim toothpaste cleaned the egg the best. The egg brushed with Aim looked much whiter and brighter. Crest made a small difference, while Colgate with Baking Soda and Peroxide barely cleaned the egg at all.



control



Conclusion: At first, we thought Colgate with Baking Soda and Peroxide would clean the best because it has strong ingredients. But our results showed that Aim toothpaste cleaned the egg the best, and Colgate barely removed any stains.

We think Colgate didn't work as well because baking soda and peroxide take longer to work. We only brushed for one minute, so they didn't have enough time to clean the stains. Aim might have stronger cleaning ingredients that worked faster.

Acknowledgements:

I would like to thank my students. I'm proud of each of you for asking questions, exploring, and showing what real scientists do. Keep being curious and never stop asking "why!"

Data:

We tested Aim, Crest, and Colgate with Baking Soda & Peroxide to find out which toothpaste cleans stains the best. Each toothpaste was brushed on a stained boiled egg for 1 minute using the same toothbrush and pressure.

Observation Scale (1-5):

- 1 = No change
- 2 = Slightly cleaner
- 3 = Some stain removed
- 4 = Mostly clean
- 5 = Very clean

Toothpaste Brand	Cleanliness Score	Observations
Aim	5	Egg looked the cleanest and brightest
Crest	3	Some stain came off but not fully clean
Colgate (Baking Soda & Peroxide)	1	Hardly removed any stains; egg stayed mostly brown