Team 72
Title: Operation Don't Litter
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Executive Summary:

Trash has always been a big problem; you see it along the road and all around you. In our project we are going to figure out which day of the week accumulates more trash in a single day. We also wanted to know if the weather season mattered in determining how much trash was contributed. We plan to experiment using our school campus. We have a private school and we wanted to know how much trash can grow very instantly in a certain area. We also wanted to measure how much trash grows from the beginning of the week on toward the end of the week.

Introduction:

Trash has always been a problem not only at our school but also around the world. The has grown over the years and still growing.

Method:

I will use two different techniques like taking photographs of trash and using an equation to measure how much trash grows weekly from the data I collected. I will be using the photographs to measure how much trash accumulates in certain areas, which students hang around and walk through. I will calculate the total amount of trash in each area, by averaging the each weeks collected data. I also plan to make a code about how much trash grows and spreads throughout campus. I also want to see how much trash is actually picked up within our students and staff population. From our data and equation we plan to designate the best week of the month to have our campus clean up.

I plan to model our project using a program; StarLogo, which will help us develop a code to represent our campus and students. Within the Code I will have students dropping trash and also students picking up trash. I will use the school population to help develop our code that will best represent our school. This code will help reach our goal of developing the best campus clean up week.

Observation/Results:

I have observed that many of the students tend to trash the front of the locker room more. Therefore my hypothesis that was stated earlier was wrong. Through our data I've seen that in almost every area they are about the same amount of trash that was collected over time. I also have seen that in the beginning of the week that there is more trash. I think that there is more trash on Monday and instead of Fridays is simply because more students buy stuff to bring back. When Friday comes we notice that most places are not as messy as they were Monday after noon. I also notice that on Wednesdays of some weeks that some trash have been pick up and also that some trash have not been clean up. I have come to two kinds of students (litters and cleaners). I then made a model of our students using the computer program StarLogo to model our school and students. I made a map of our school and also created two kind of students from what I have observe. My code shows students walking around either dropping trash or other students picking up

Data:

Entrance to the "Locker Room"

October

Week 1 (2-6)
- Monday-8
- Friday-7
- Average-7.5

Week 2 (9-13)
- Monday-5
- Friday-3
- Average-4

Week 3 (16-20)
- Monday-6
- Friday-4
- Average-5

Week 4 (23-27)
- Monday-7
- Friday-4
- Average-5.5

Average-5.5

November

Week 1 (6-10)
- Monday-6
- Friday-5
- Average-5.5

Week 2 (13-17)
- Monday-5
- Friday-6
- Average-5.5

Week 3 (20-24) (Thanksgiving Break)
- *Monday-*
- *Friday-*
- *Average-*

Week 4 (27-1)
- Monday-5
- Friday-3
- Average-4

Average- 5

December

Week 1 (4-8)
- Monday-6
- Friday-6
- Average-6

Week 2 (11-15)
- Monday-5
- Friday-7
- Average-6.5

Week 3 (18-22) (Christmas Break)
- *Monday-*
- *Friday-*
- *Average-*

Week 4 (25-29)
- *Monday-*
- *Friday-*
- *Average-*

Average-6.25

January

Week 1 (1-5)(Christmas break)
- *Monday-*
- *Friday-*
- *Average-*

Week 2 (8-9)
- Monday-6

Friday-3
Average-4.5
Week 3 (15-16)
Monday-5
Friday-4
Average-4.5
Week 4 (22-26)
Monday-7
Friday-5
Average-6.5
Average-5.167

Entrance to the "Library"

October

Week 1 (2-6)
Monday-6
Friday-3
Average-4.5
Week 2 (9-13)
Monday-4
Friday-2
Average-3
Week 3 (16-20)
Monday-4
Friday-4
Average-4
Week 4 (23-27)
Monday-4
Friday-2
Average-3
Average-3.625

November

Week 1 (6-10)
Monday-4
Friday-1
Average-2.5
Week 2 (13-17)
Monday-3
Friday-4
Average-3.5
Week 3 (20-24) (Thanksgiving Break)
Monday-
Friday-
Average-
Week 4 (27-1)
Monday-4
Friday-3
Average-3.5
Average-3.167

December

Week 1 (4-8)
Monday-4
Friday-2
Average-3
Week 2 (11-15)
Monday-2
Friday-7
Average-4.5
Week 3 (18-22) (Christmas Break)
Monday-
Friday-
Average-
Week 4 (25-29)
Monday-
Friday-
Average-
Average-3.75

January

Week 1 (1-5 (Christmas break)
Monday-
Friday-
Average-
Week 2 (8-9)
Monday-6
Friday-3
Average-4.5
Week 3 (15-16)
Monday-5
Friday-4
Average-4.5
Week 4 (22-26)
Monday-7
Friday-5
Average-6.5
Average-5.167

Front of Admission Buildings

October

Week 1 (2-6)
Monday-6
Friday-5
Average-5.5
Week 2 (9-13)
Monday-5
Friday-4
Average-4.5
Week 3 (16-20)
Monday-5
Friday-4
Average-4.5
Week 4 (23-27)
Monday-6
Friday-4
Average-5
Average-4.875

November

Week 1 (6-10)
Monday-6
Friday-6
Average-6
Week 2 (13-17)
Monday-4
Friday-6
Average-5
Week 3 (20-24) (Thanksgiving Break)
Monday-
Friday-
Average-
Week 4 (27-1)
Monday-5
Friday-4
Average-4.5
Average-5.167

December

Week 1 (4-8)
Monday-6
Friday-4
Average-5
Week 2 (11-15)
Monday-6
Friday-7
Average-6.5
Week 3 (18-22) (Christmas Break)
Monday-
Friday-
Average-
Week 4 (25-29)
Monday-

Friday-
Average-
Average-5.75

January
Week 1 (1-5) (Christmas break)
Monday-
Friday-
Average-
Week 2 (8-9)
Monday-4
Friday-3
Average-3.5
Week 3 (15-16)
Monday-3
Friday-4
Average-3.5
Week 4 (22-26)
Monday-6
Friday-5
Average-5.5
Average-4.167

Opening to the portable buildings
October
Week 1 (2-6)
Monday-4
Friday-3
Average-3.5
Week 2 (9-13)
Monday-5
Friday-2
Average-3.5
Week 3 (16-20)
Monday-2
Friday-3
Average-2.5
Week 4 (23-27)
Monday-2
Friday-4
Average-3
Average-3.125

November
Week 1 (6-10)
Monday-1
Friday-3
Average-2
Week 2 (13-17)
Monday-3
Friday-5
Average-4
Week 3 (20-24) (Thanksgiving Break)
Monday-
Friday-
Average-
Week 4 (27-1)
Monday-4
Friday-3
Average-3.5
Average-3.167
December
Week 1 (4-8)
Monday-3
Friday-4

Average-3.5
Week 2 (11-15)
Monday-2
Friday-2
Average-2
Week 3 (18-22) (Christmas Break)
Monday-
Friday-
Average-
Week 4 (25-29)
Monday-
Friday-
Average-
Average-2.75

January

Week 1 (1-5)(Christmas break)
Monday-
Friday-
Average-
Week 2 (8-9)
Monday-6
Friday-3
Average-4.5
Week 3 (15-16)
Monday-2
Friday-4
Average-3
Week 4 (22-26)
Monday-2
Friday-3
Average-2.5
Average-3.33

Behind the Library

October

Week 1 (2-6)
Monday-1
Friday-0
Average-.5
Week 2 (9-13)
Monday-0
Friday-2
Average-1
Week 3 (16-20)
Monday-1
Friday-1
Average-1
Week 4 (23-27)
Monday-1
Friday-0
Average-.5
Average-.75

November

Week 1 (6-10)
Monday-2
Friday-1
Average-1.5
Week 2 (13-17)
Monday-2
Friday-2
Average-2
Week 3 (20-24) (Thanksgiving Break)
Monday-
Friday-
Average-
Week 4 (27-1)
Monday-1
Friday-0
Average-.5
Average-1.333

December

Week 1 (4-8)
Monday-2
Friday-1
Average-1.5
Week 2 (11-15)
Monday-1
Friday-3
Average-2
Week 3 (18-22) (Christmas Break)
Monday-
Friday-
Average-
Week 4 (25-29)
Monday-
Friday-
Average-
Average-1.75

January

Week 1 (1-5) (Christmas break)
Monday-
Friday-
Average-
Week 2 (8-9)
Monday-2
Friday-0
Average-1
Week 3 (15-16)
Monday-2
Friday-1

Average-1.5
Week 4 (22-26)
Monday-2
Friday-1
Average-1.5
Average-1.333

Data Analysis: In my data that I collected from October through the month of January I seen the increase and decrease of trash that accumulated within the area I had been collecting my data from. Within the certain areas I have recorded how much trash was found. I recorded trash on a Mondays and Fridays of each week. Then for each week I average the amount of trash that was recorded. Each month also has an average from each of the weeks. I took the same data for each of the areas I was testing. Each area then has its own set of data. Each month's average are all different because there were different amount trash that was accumulated within the weeks.

Conclusion:
My hypothesis was not correct according to my data that I have collect over the months. There was more trash that accumulated around the locker room entrance instead of the library entrance way. I know now where we can put our trash cans around our school for a cleaner campus. I have put three new trash cans around our campus in the spots that our data showed where more trash was drop. I still have trash but not as much as we did before we set up many of the trash cans.

Conclusion:
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Star Logo Code:
In our code we made our school into and map. We also had the two different types of turtles the litters and cleaners. The litters walk around campus and drop trash everywhere they walk. The turles (students) could not walk through the buildings.

Work Cited

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TRASH DATA, http://www.geocities.com/submergefestival/gowanuspics.htm

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StarLogo, Media Laboratory and Teacher Education Program, MIT, Cambridge, Massachusetts, http://education.mit.edu/starlogo/