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My Washing Machine - Full Loads

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1. Impact Design

Impact Statement - If I commit to only running full loads when using my washing machine, then I will reduce my water footprint and save money.

Community Alignment	
Group	Goal/Action
City of Auburn 2021-2025 Water Use Efficiency Program	The City has exceeded its Water Use Efficiency (WUE) Program goal of five percent water use reduction from 2014 through 2020; the actual reduction was nine percent. However, significant portions of the water use savings may be attributed to the factors other than the WUE Program, such as the economy.
Alliance for Water Efficiency	<p>They state how to manage on-site laundry facilities efficiently, since many industrial and commercial facilities consume a considerable amount of water for laundering. Their solutions include:</p> <ul style="list-style-type: none"> • For residential-style washing machines, select a low water factor. As of January 2011, top and front loading ENERGY STAR clothes washers  must have a water factor of 6.0 or less. The federal standard is 9.5. • Set multi-load machines to run efficiently with separate settings for each cycle. • Assess the feasibility of installing a tunnel washer if large volumes of laundry are being processed. • Evaluate costs and benefits for using laundry systems that recycle water or use ozone technology.

Procedure - Steps for implementation!

1. Track current home washing machine behavior for two weeks. Mark each load as full or not full on a Google Spreadsheet.
2. Use washing machine details to calculate how much water my family is using to run the washing machine on average each week. See the "Data" section below to learn how to quantify this.
3. Communicate with family members and adjust personal behaviors to strive for 100% full washing machine loads.
4. Collect new data in my Google Spreadsheet by recording each washing machine load as full or not full.
5. Calculate how many gallons of water are being used to run the washing machine each week. Look for declining trends. As able, try to estimate the money saved from using less water.

2. Impact Data Tracking - Quantify your impact!

After looking into my washing machine model, I've discovered that it averages **20** gallons of water per load. *If a washing machine has different size settings, the full washing machine setting is still likely the most efficient. However, to improve the accuracy of data collecting, it seems like you can try to figure out how many gallons of water each size requires. You can adjust your data collecting and computation process to account for this and mark how many water you use for specific laundry loads.*

Initial Data:

Full Washing Machine Loads per Week: **2**

Not Full Washing Machine Loads per Week: **4**

(6 loads)(20 gallons of water per load) = **120** gallons of water per week

Data after Behavior Adjustments:

Full Washing Machine Loads per Week: **4**

Not Full Washing Machine Loads per Week: **0**

(4 loads)(20 gallons of water per load) = **80** gallons of water per week

120 gallons of water per week initially - **80** gallons of water per week after behavior changes
= **40** gallons of water saved each week (2 loads less)

x 52 weeks per year = Approximately **2,080** gallons of water saved annually

Extra Considerations: If I could convince my parents about buying an Energy-Star clothes-washer, then up to 6 more additional gallons.

3. Impact Storytelling - Share your data with who needs to know! See more [tips](#)

Think on 4 scales of stakeholders... Family, School, Community, and Aligned Groups

Stakeholder	Interests	Approach
Family — Parents	Finding more efficient solutions	Conversation: Talk my parents into getting an Energy Star clothes washing machine to save even more water.
School — Classmates	Sustainability	Video: Creating an informational video or infographic to present and inform peers about water waste from laundry loads.
Community — Neighbors	Helping with water saving solutions	Conversations: Go from house to house discussing the benefits of an Energy-Star clothes washing machine.
Aligned Groups — Representatives	Saving water and money wide scale	Conversations: Seek out city representatives through school and have conversations about how Energy Star products are efficient in saving water and money. Talk about why they should be implemented in all communities.

Add your project to our website under "[Submit your Impact](#)"! Contribute to collective impact...

Storyboarding

Video 1:

- How many loads of laundry does your family load in a week?
- “This is how much my family loads..” Present data from this impact project
- Show how the amount of water wasted is decreased when using full loads. (Numbers)
- This amount of water being wasted translates into money being spent!
- “So how can we save both water and money?”

Video 2:

- How does the amount of water being saved turn into the money saved?
- “Since I’ll be saving about 2,080 gallons of water, (it cost 4 cents per gallon) meaning $0.04 \times 2,080 = 83.20$ dollars per year”
- This makes a huge difference when other household billings are put into account.
- “Find out what more you can do to be a water saving all star in the next video”

Video 3:

- Let’s zoom back and see what other things can be changed to save more water and energy in the long run
- Show two different washing machines (Energy-Star and my own)
- What’s the main difference?
- Water-Use! ES-14 gallons, mine- 20
- From using full loads to buying a more efficient washing machine, there are two ways to decrease the amount of money we spend and water we waste.
- What do you want to do to save your family’s water and money?