

Student Water Use Report Card

Student Name _____

Teacher Name _____

School _____

Street _____

City _____

State _____ Zip _____

Plumbing Fixture Efficiency Report

Using the items in your kit, find the water wasting fixtures in your home! Use this sheet to figure out how much water your family can save by installing new water conserving showerheads, sink faucet aerators, and toilets.

A. Toilets: To determine gallons per flush: 1. Wrap Flush Volume Calculator around tank as shown. 2. Flush volume is indicated where a letter portion of the tape overlaps the beginning.

$$\frac{\text{Gallons/Flush}}{\text{Number of Flushes Per Day (Entire Family)}} \times \frac{\text{Gallons Used Per Day}}{\text{Days Per Week}} \times \frac{\text{Gallons Used Per Week}}{\text{Weeks Per Year}} = \text{Gallons Used Per Year} \quad L$$

$$L - M = \frac{\text{Gallons Saved Per Year}}{\text{Gallons Saved Per Year}}$$



To determine gallons per flush using a new ultra-low-volume toilet:

$$\frac{1.6}{\text{Gallons/Flush}} \times \frac{\text{Number of Flushes Per Day (Entire Family)}}{\text{Days Per Week}} \times \frac{\text{Gallons Used Per Week}}{\text{Weeks Per Year}} = \text{Gallons Used Per Year} \quad M$$

B. Showers: To determine gallons per minute: 1. Place Flow Gauge Bag over showerhead as shown. 2. Quickly turn water on to normal flow position for 5 seconds. 3. Turn water off and note water level indicating flow rate.

$$\frac{\text{Gallons/Minute}}{\text{Minutes Spent Showering Per Day (Entire Family)}} \times \frac{\text{Gallons Used Per Day}}{\text{Days Per Week}} \times \frac{\text{Gallons Used Per Week}}{\text{Weeks Per Year}} = \text{Gallons Used Per Year} \quad N$$

$$N - O = \frac{\text{Gallons Saved Per Year}}{\text{Gallons Saved Per Year}}$$



To determine gallons per flush using a new ultra-low-volume toilet:

$$\frac{2.0}{\text{Gallons/Minute}} \times \frac{\text{Minutes Spent Showering Per Day (Entire Family)}}{\text{Days Per Week}} \times \frac{\text{Gallons Used Per Week}}{\text{Weeks Per Year}} = \text{Gallons Used Per Year} \quad O$$

C. Faucets: To determine gallons per minute: 1. Use the procedure described in the above "Showers" section to measure faucet flow.

$$\frac{\text{Gallons/Minute}}{\text{Minutes Spent Flowing Per Day (Entire Family)}} \times \frac{\text{Gallons Used Per Day}}{\text{Days Per Week}} \times \frac{\text{Gallons Used Per Week}}{\text{Weeks Per Year}} = \text{Gallons Used Per Year} \quad P$$

$$P - Q = \frac{\text{Gallons Saved Per Year}}{\text{Gallons Saved Per Year}}$$

To determine gallons per flush using a new ultra-low-volume toilet:

$$\frac{2.0}{\text{Gallons/Minute}} \times \frac{\text{Minutes Spent Flowing Per Day (Entire Family)}}{\text{Days Per Week}} \times \frac{\text{Gallons Used Per Week}}{\text{Weeks Per Year}} = \text{Gallons Used Per Year} \quad Q$$



D. Toilet Leakage: To estimate leakage rate: 1. Remove toilet tank lid. If you can see or hear water running (300 gallons per day). 2. If you cannot see or hear water running, drop one leak tablet into the tank. If color appears in the bowl within 10 minutes: (150 gallons per day). 3. If color appears after ten minutes: (75 gallons per day).

$$\frac{\text{Leakage Rate Per Day}}{\text{Days Per Week}} \times \frac{\text{Gallons Wasted Per Week}}{\text{Weeks Per Year}} = \text{Gallons Wasted Per Year} \quad R$$

$$R = \frac{\text{Total Gallons Wasted Per Year}}{\text{Total Gallons Wasted Per Year}}$$

E. Shower and Faucet Leakage: To determine leakage rates: 1. Hold Drip Cup under leaky fixture for five seconds. 2. Quickly remove the Drip Cup from under leaky fixture and note leakage rate.

Shower

$$\frac{\text{Leakage Rate Per Day}}{\text{Days Per Week}} \times \frac{\text{Gallons Wasted Per Week}}{\text{Weeks Per Year}} = \text{Gallons Wasted Per Year} \quad S$$

$$S + T = \frac{\text{Total Gallons Wasted Per Year}}{\text{Total Gallons Wasted Per Year}}$$

Faucet

$$\frac{\text{Leakage Rate Per Day}}{\text{Days Per Week}} \times \frac{\text{Gallons Wasted Per Week}}{\text{Weeks Per Year}} = \text{Gallons Wasted Per Year} \quad T$$

