## 4-H Grab and Go: Home Water Audit

Background Information:

Often we take water for granted! We use it and trust that it will come back to us through the water cycle, right? Sometimes we get worried about our water supply when we hear the word "drought" and start working hard to conserve...most of the time "a little too late". There are ways that your family can begin effective water conservation before the reservoirs or wells get too low. The first step is to assess the amount of water that your family members use daily to see where water is being wasted. This is done through a home water audit. Realizing that people's water usage may change from day to day, it is best to do this for a few days to get a more accurate picture of what is going down the drain!

## 1. Watch an Educational Film with your Family

- Watch Upstream, Downstream, an educational film about where water comes from, where it goes, and how to conserve it. To view the streaming videos, visit www. $4-\mathrm{H} . \mathrm{org} / 4-\mathrm{H} 2 \mathrm{O}$ and click on Upstream, Downstream (Part 1) and (Part 2).


## 2. Discuss

- Discuss the difference between being on a city/town water system and being on a well.
- Locate where water enters your home and where it leaves your home.
- Examine where your family vehicle is parked, if you have one. Do you see signs of oil on the ground around the car? Is your vehicle negatively impacting the environment? If so, what can you do to fix this issue?


## 3. Complete a Home Water Audit

- See page 2 for instructions.


## 4. Brainstorm

- Come up with 5-10 ways that your family can cut back on water usage.
- Graywater is wastewater that is created from residential use such as dish washing, laundry and bathing. Graywater accounts for $50-80 \%$ of residential wastewater. Think of a way to collect the graywater from your home and choose 5 areas where you could put it to use.


## 5. Create a Pie Chart of Bar Graph

- Create a pie chart or bar graph depicting the average usage in each area listed in the Home Water Audit Chart.
- Use your chart or graph to present your case for conserving water to your family members. Share your ideas and see which ones your family members are willing to implement.


## 6. Try it Out

- Have your family try out suggestions you have come up with to conserve water. Follow-up with another 3 days of home water audit to see if your suggestions have made a difference.
- If your family pays for their water, compare the previous month's bill to the bill after implementing your conservation methods. Was there a difference in water usage? If so, how much money did you save for your family by conserving water?


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## Home Water Audit (Continued)

## What's the Issue?

What can we change in our daily lives to help us conserve water?

Collect the Tools:

- Pencil
- Home Water Audit chart (youth need to create)
- Calculator

Home Water Audit Chart:

Instructions: (Observe and Collect Data)
What can we change in our daily lives to help us conserve water?

Recreate the chart below in your field notebook so that you will have enough copies for 3 days. Since you are trying to assess your family's water usage, you will need to have your family members help fill in where they have used water. You might post this in a central location or close to the area where a water activity occurs to make sure your records are accurate. Tally marks might be the easiest way to keep track of many of the activities.

| Activity | \# of Times | Family Members |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 2 | 3 | 4 | 5 | How many Gallons? |
| Drinking $\mathrm{H}_{2} \mathrm{O}$ | $8 \mathrm{oz}=1$ Cup |  |  |  |  |  | \# of cups/16 |
| Toilet Flushing | Flushes |  |  |  |  |  | ```Standard Toilet= # flushes * 5 Low Volume Toilet= # flushes * 1.6``` |
| Brushing Teeth | $\mathrm{H}_{2} \mathrm{O}$ running in Minutes |  |  |  |  |  | \# minutes * 4 |
| Dishwasher | Cycles/Day |  |  |  |  |  | \# of cycles * 15 |
| Handwashing OR Dishes | $\mathrm{H}_{2} \mathrm{O}$ running in Minutes OR <br> Sink w/ stopper filled \# of times |  |  |  |  |  | $\begin{gathered} \text { \# minutes * } 3 \\ \text { OR } \\ \text { \# times filled * } 10 \end{gathered}$ |
| Laundry | Cycles/Day |  |  |  |  |  | \# of cycles * 30 |
| Shower OR Bath | Length in Minutes OR \# Full Baths |  |  |  |  |  | Showers: Standard Showerhead= <br> \# minutes * 4 <br> Low Flow Showerhead= <br> \# minutes * 2.5 <br> Baths: <br> \# full baths * 40 |
| Exterior Hose Use | Length in Minutes |  |  |  |  |  | \# minutes * 10 |
| Date: ___ To |  | Total Number of Gallons Used: |  |  |  |  |  |

Visit the 'water gadget' online at www.4-H.org/4-H20

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