### Environmental Science Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **Period\_\_\_\_\_**

#  How much water does my family use?

**Objective:**

The supply of water seems to be endless. Every time we turn on the tap we get water. In some places this is not always the case. By completing this activity, you'll be amazed to find out how much water your family actually uses. Also, you may discover that you can save money by identifying ways in which you're wasting water.

|  |
| --- |
| **Water Usage** |
| **ACTIVITY** | **AMOUNT** |
| Bath | 25 gallons |
| Dishwasher | 14 gallons |
| Fire Hydrant | 1,000 gallons per minute (fully opened) |
| Flushing the Toilet | 5 gallons per flush |
| Lawn Watering | 10 gallons per minute |
| Leaky Faucet | 15 gallons of water per day |
| Shower | 10 gallons per minute |
| Washing Machine | 40 gallons per load |

**Step 1**

**Calculate how much water is used in your home for showers, using the chart above.**

**You need to calculate the following:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **\_\_\_\_\_\_\_\_** | **X** | **\_\_\_\_\_\_\_\_** | **=** | **\_\_\_\_\_\_\_\_\_\_** |
| the number of showers per week  |  | the average minutes per shower  |  | **showering minutes per week** |
| **\_\_\_\_\_\_\_\_** | **X** | **\_\_\_\_\_\_\_\_** | **=** | **\_\_\_\_\_\_\_\_\_\_** |
| showering minutes per week |  | gallons per minute used showering |  | **total gallons used per week for showers** |

**Step 2**

**Figure out the number of gallons you use in a week for the activities listed below.**

|  |
| --- |
| **Gallons Used in a Week** |
| **Activity** | **Times per Week** | **Gallons Used per Activity** | **Total Gallons Used** |
| Dishwasher | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| Flushing the Toilet | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| Taking a Bath | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| Lawn Watering | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| Doing Laundry | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| Car Washing | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| Showers | **The total gallons used for showers can be obtained from the results in step 1.**  | \_\_\_\_\_\_\_ |
|  |  | **Total Usage**  | \_\_\_\_\_\_\_ |

**Step 3**

**Assume you have a leaky faucet in your kitchen. If the faucet leaks for two weeks, how much water would be wasted?**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **\_\_\_\_\_\_\_\_** | **X** | **\_\_\_\_\_\_\_\_** | **=** | **\_\_\_\_\_\_\_\_\_\_** |
| gallons wasted per day |  | number of days |  | **number of gallons wasted** |

 **Step 4**

**Now let's look at the bigger picture by answering the following questions.**

1. How would your life be affected if you turned on the faucet and no water came out?
2. What states in the United States have water shortages and why?
3. Name three countries that have a shortage of water. How are they resolving the problem? Where did you find your information?