**Shades of Gray(water) Worksheet**

1. Calculate how much water a household with \_\_\_\_\_\_ people uses every day.

|  |  |  |  |
| --- | --- | --- | --- |
| **Fixture** | **Use (gallons/person)** | **# of People** | **Daily Use (use 🞨 # people)** |
| baths | 1.5 |  |  |
| clothes washers | 15 |  |  |
| dish washers | 1 |  |  |
| faucets | 11 |  |  |
| showers | 12 |  |  |
| toilets | 19 |  |  |
| ***Total*** | ***59.5*** |  |  |

1. Using the scale 1 gallon = 1 ml, calculate how much water you will use in your model.

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| --- | --- | --- |
| **Fixture** | **Daily Use (gallons)** | **Daily Use (ml)** |
| baths |  |  |
| clothes washers |  |  |
| dish washers |  |  |
| faucets |  |  |
| showers |  |  |
| toilets |  |  |

1. Starting with baths, measure out the amount calculated in step 2 into the cup.
2. Pour the cup into the labeled funnel.
3. Repeat steps 3 and 4 for each fixture.
4. Make observations about what happens to the water. Do any change color?

How much water is in the cup on the bottom labeled “graywater”?

1. The toilet is the only fixture in the house that does not require potable water to flush. It can use graywater. Using the amount of graywater your family generated, how many toilet flushes can you do?

Since our scale was 1 ml = 1 gallon, \_\_\_\_\_\_\_ gallons of graywater would have been produced in a real house.

Now let’s calculate how many flushes we could use this graywater for in a low flow toilet

\_\_\_\_\_\_\_\_ ÷ 1.5 = \_\_\_\_\_

gallons of graywater gallons/flush flushes

1. Can you think of any other places where we can use graywater in our houses? What about outside?
2. Make a bar chart using your numbers from step 1. Color the graywater sources blue and the blackwater sources black.

**Bar graph of indoor water use.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| gallons |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| **bath** | **clothes washer** | **dish washer** | **faucets** | **showers** | **toilets** |