

## 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		
<b>Total</b>	<b>59.5</b>		

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

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

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

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

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

7. 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

$$\frac{\text{_____}}{\text{gallons of graywater}} \div \frac{1.5}{\text{gallons/flush}} = \frac{\text{_____}}{\text{flushes}}$$

8. Can you think of any other places where we can use graywater in our houses? What about outside?

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

9. 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.**

