Water Conservation: Are You A Water Wizard?

Calculate your weekly water use to find out! Estimate the amount of water you use in a typical week by filling in the table below with the number of times you usually do each activity in one week. Multiply your total by the water use (gallons) to determine the total weekly use in gallons.

Water Use Table

Multiply Number of Times Per Week by Water Use (in gallons).

Activity	Number of Times Per Week	Water Use (Gallons)	Total Weekly Use (Gallons)
	2 *Total*	35	***70***
Shower (15 min)	***5*** *Total*	45	***225***
Teeth Brushing	***14*** *Total*	5	***70***
Hand Washing	***35*** *Total*	5	***175***
Washing Machine (clothes)	***1*** *Total*	35	***35***
Toilet Flush	***35*** *Total*	3	***105***
Dishwasher	***3*** *Total*	10	***30***
Washing Dishes By Hand	***5*** *Total*	15	***75***
Drinking a Glass of Water	***56*** *Total*	0.06	***3.36***
Cooking a Meal	***15*** *Total*	3	***45***
Watering Small Lawn	***2*** *Total*	100	***200***
		Total Weekly Gallons	***1033.36***

Add the total weekly use for each activity.

Student answers will vary, sample data shown

Station – Land Contouring

1. Complete the following table as you explore methods of contouring the land to reduce surface run-off and conserve water.

Trial	# Water Beads Total	# Beads in Run-off (at bottom of tray)	% Beads in Run-off ($\#\ beads\ in\ runoff\ \div 50) \times 100$
Control (no contouring)	50	***43***	***86%***
Berm 'n' Basin OR Boomerang Berms	50	***4***	***8%***

Student answers will vary, sample data shown

2. Which method had the lowest percentage of surface run-off? (circle one)

Control (no contouring) or Land Contouring (changing the shape)

Station – Rooftop Rainwater Harvesting

1. Predict that _____ of will collect _____ % of the rainwater. (circle one)

Student answers will vary, sample data shown

0 – 25% 26 – 50% 51 – 75% 76 – 100%

2. Complete the following table after you measure the amount of water collected in the cistern.

Amount of Rainwater Harvested (mL)	% of Total Rainwater Harvested (mL harvested ÷ 500) ×100
382	***76%***

3. Was your prediction correct? (circle one) yes no

4. Was the actual amount of rainwater harvested higher, lower, or equal to your prediction? (circle one)

Higher Lower Same

Station – Greywater Recycling

1. Complete the following table before you begin rolling marbles. This table will tell you how many marbles you need to roll for each activity.

Greywater Recycling		
Activity	**Gallons per use**	**Marbles to roll** *Gallons per use* ÷ 5
Bath	**35**	***7***
Shower	**45**	***9***
Teeth brushing / Hand washing	**5**	***1***
Washing machine	**35**	***7***

2. How many marbles are in your cistern after your group completed the household activities?
26

Student answers will vary, sample data shown

If each marble represents 5 gallons of water, how many gallons of greywater could be recycled in one day?
130 gallons

Conclusions

1. Explain why it is important to practice water conservation methods in a changing climate.

Student answers will vary. However, students should cover the idea that increasing temperatures due to climate change will result in reduced snowpack, reduced soil moisture, and more extreme events (such as droughts). Some parts of New Mexico will also get decreased total precipitation. It will therefore be important for every New Mexican to try to conserve as much water as possible.

2. List at least two ways you that you can change your habits to conserve water.

Student answers will vary. Students may have some of the water conservation ideas listed on Slide 12, or they may come up with their own ideas based on the activity stations in this lesson or based on other knowledge.