

Graph a Year of Water Bills

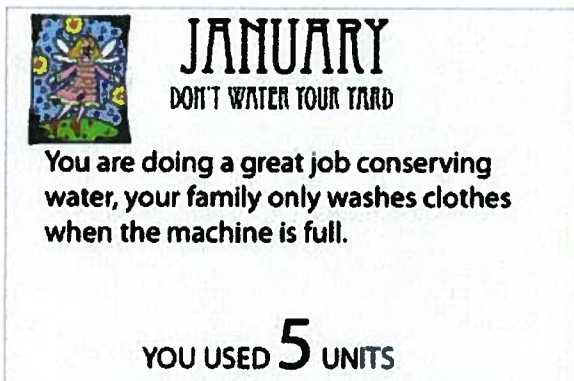
Teacher Directions:

1. Put students into groups of 4 or less. Give each group a complete set of cards from this file. You may want to copy onto cardstock and laminate so you can reuse the cards. Let them cut the cards and stack into piles of months.
2. Each student will need a graph to put units of water on. The graph in this file is 8.5 x 11 and should work if students use beans to graph units. Explain that each bean represents a unit or 748 gallons.
3. Assign one student in each group to be in charge of January cards. Ask those students to shuffle and hand out the January cards to each student. Students then put the number of cards on the January column of their graph.
4. Ask the next student to shuffle the February cards and hand them out. Continue through the year.
5. Ask students to count how many total units they used in a year. What was the average amount of water used in a month? (Divide the total by 12 to find the average.)

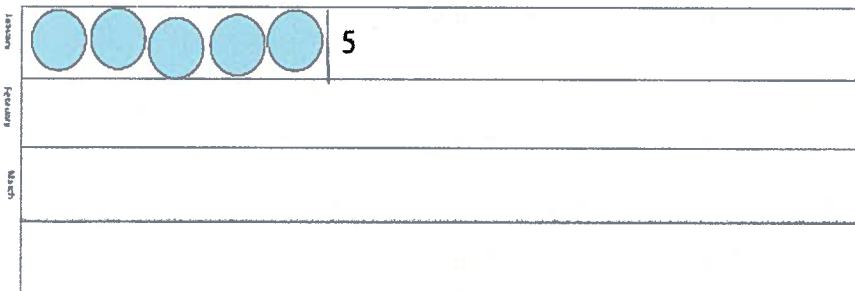
Student Directions:

Step 1: Take out January cards, shuffle, hand one to each student.

Step 2: Read your card. It tells you how many units you used. Take that many counters (beans) and fill in your graph. Leave your beads on the graph until the activity is done.



Step 3: Make sure your counters are close to each other. Make a line at the end of your beads and write the number down.



Step 4: If you get a Water Fairy card (one with a picture of the water fairy on it) remember what you did so you can tell your classmates how to save water.

Step 5: Return the January cards. The next student should take out the February cards, shuffle, and hand one to each student.

Step 6: Repeat steps until you fill out your graph, or until time is up.



JANUARY

DON'T WATER YOUR YARD

You are doing a great job conserving water, your family only washes clothes when the machine is full.

YOU USED **5** UNITS



JANUARY

DON'T WATER YOUR YARD

You forgot to turn off your irrigation system so you're watering plants that are dead as doornails. You wasted 5 units. Oink, oink!

YOU USED **12** UNITS



JANUARY

DON'T WATER YOUR YARD

In the winter you only need water for indoors: bathing, toilets, cleaning, and cooking.

YOU USED **7** UNITS



JANUARY

DON'T WATER YOUR YARD

You took half hour showers all month because you were cold. You wasted 3 units of water. Oink, oink!

YOU USED **10** UNITS (Take 5 minute showers!)



FEBRUARY

DON'T WATER YOUR YARD

You are doing a great job conserving water. Everyone in your family takes only five minutes for a shower.

YOU USED **5** UNITS



FEBRUARY

DON'T WATER YOUR YARD

YIKES!! You have a toilet leak that wasted 5 units this month. Oink, oink! Check for toilet leaks by putting dye in the tank and seeing if it shows up in the bowl.

YOU USED **12** UNITS



FEBRUARY

DON'T WATER YOUR YARD

It's cold so your family (4 people) all decide to take 30 minutes showers. You waste 12 units of water. Oink, oink!

YOU USED **19** UNITS (Take 5 minute showers!)



FEBRUARY

DON'T WATER YOUR YARD

In the winter you only need water for indoors: bathing, toilets, cleaning, and cooking.

YOU USED **7** UNITS



MARCH

WATER YOUR YARD ONCE A WEEK

It's warming up. You still need water for indoors (7 units), and you can water your yard one time a week now.

YOU USED **9** UNITS



MARCH

WATER YOUR YARD ONCE A WEEK

You filled your bathtub up to the very top every night when you bathed. That's about 100 gallons a night, 60 gallons a night too much. You wasted 3 units. Oink, oink!

YOU USED **12** UNITS



MARCH

WATER YOUR YARD ONCE A WEEK

When you help wash the family car you always use a nozzle on your hose. Good Work!!!

YOU USED **6** UNITS



MARCH

WATER YOUR YARD ONCE A WEEK

You accidentally left the sprinklers on all night!!! You wasted 5 units of water AND the creature from the Black Lagoon moved in. Oink, oink!

YOU USED **14** UNITS (Now buy a sprinkler timer!)



APRIL

WATER YOUR YARD TWICE A WEEK

You "overloved" your plants, giving them too much water when you watered and watering too often. They're weaker and getting fungus. Oink, oink!

YOU USED **13** UNITS (and killed your plants)



APRIL

WATER YOUR YARD TWICE A WEEK

You didn't fix your leaky faucet. You wasted 3 units of water AND the constant "plop . . . plop . . . plop" of water drops is driving you BONKERS. Oink, oink!

YOU USED **12** UNITS



APRIL

WATER YOUR YARD TWICE A WEEK

April showers bring May flowers and you caught the rain in rainbarrels to water plants when it is dry.

YOU USED **6** UNITS



APRIL

WATER YOUR YARD TWICE A WEEK

You used your normal amount of water indoors (7 units) and watered your xeriscape yard once a week.

YOU USED **8** UNITS



MAY

WATER YOUR YARD TWICE A WEEK

You planted bluegrass seed for a lawn. It needs 40 inches of water a year, but we only get 8 inches of rain. You'll need tons of water to keep it green! Oink, oink!

YOU USED **18** UNITS (Next time, xeriscape!)



MAY

WATER YOUR YARD TWICE A WEEK

You programmed your sprinkler timer so that it only waters your yard in the cool part of the day (early morning or night).

YOU USED **11** UNITS



MAY

WATER YOUR YARD TWICE A WEEK

You used the normal amount of water indoors and watered your yard only twice a week, giving your lawn only a half inch each watering. GOOD JOB!!

YOU USED **12** UNITS



MAY

WATER YOUR YARD TWICE A WEEK

You watered your yard twice a week, but each time you gave your plants 2 inches of water. The ground can only accept one half inch of water, the rest runs off. Oink, oink!

YOU USED **20** UNITS



JUNE

WATER YOUR YARD THREE TIMES A WEEK

You used normal indoor water (7 units) and watered 3 times a week (7 units). Then you filled your pool (17) units. Oink, oink!

YOU USED **31** UNITS



JUNE

WATER YOUR YARD THREE TIMES A WEEK

One of your sprinkler heads is broken and is shooting a fountain of water into the air. Your sprinklers run at night, so you are sleeping through it. Oink, oink!

YOU USED **21** UNITS



JUNE

WATER YOUR YARD THREE TIMES A WEEK

You used your average amount of water indoors and watered outdoors three times a week, as you should. Good Work!!

YOU USED **14** UNITS



JUNE

WATER YOUR YARD THREE TIMES A WEEK

You swim at the public pools where lots of people benefit from the water use. Great way to save water!

YOU USED **10** UNITS



JULY

WATER YOUR YARD THREE TIMES A WEEK

You had a carwash to earn money for your favorite charity, The Society to Protect Wild Corndogs. You left the hose running for 4 hours, wasting 6 units. Oink, oink!

YOU USED **21** UNITS (Next time, get a hose nozzle!)



JULY

WATER YOUR YARD THREE TIMES A WEEK

Besides using the normal amount of water indoors, you watered your yard 5 times a week! It's hot, so you watered one hour each time, hurting your plants. Oink, oink!

YOU USED **20** UNITS



JULY

WATER YOUR YARD THREE TIMES A WEEK

You used the normal amount of water indoors and watered your yard only three times a week, giving your lawn only a half inch each watering. GOOD JOB!!

YOU USED **15** UNITS



JULY

WATER YOUR YARD THREE TIMES A WEEK

You watered your xeriscape yard only when it needed water. (If you had a lawn, you removed it to replace with xeriscape.)

YOU USED **11** UNITS



AUGUST

WATER YOUR YARD THREE TIMES A WEEK

Yikes! A broken pipe! Your grandma found the problem when she sank into mud up to her knees. No cookies for you! On top of that, you wasted 5 units of water. Oink, oink!

YOU USED **20** UNITS



AUGUST

WATER YOUR YARD THREE TIMES A WEEK

It's hot so you decide to water every day, twice a day. (If you didn't have a lawn, you planted new seed.) You wasted 14 units. Oink, oink!

YOU USED **29** UNITS (YIKES!!!)



AUGUST

WATER YOUR YARD THREE TIMES A WEEK

You used your average amount of water indoors and watered outdoors three times a week, as you should. Good Work!

YOU USED **15** UNITS



AUGUST

WATER YOUR YARD THREE TIMES A WEEK

You checked your sprinkler system while it was running and fixed the leak immediately. Now your grandma can bring you cookies!

YOU USED **12** UNITS



SEPTEMBER

WATER YOUR YARD TWICE A WEEK

You used 7 units indoors and watered only twice a week for a half hour each time. Good Work!

YOU USED **12** UNITS



SEPTEMBER

WATER YOUR YARD TWICE A WEEK

Your sprinkler system is watering the street, even though asphalt won't grow or produce fruit. Even if asphalt did produce fruit, it would break your teeth! Oink, oink!

YOU USED **15** UNITS



SEPTEMBER

WATER YOUR YARD TWICE A WEEK

You watered your yard only three times a week, except you left the water on overnight one night, wasting 10 units. Oink, oink!

YOU USED **22** UNITS (Buy a timer!)



SEPTEMBER

WATER YOUR YARD TWICE A WEEK

You planted native grass adapted to live in in deserts like Albuquerque. Next summer you can water it just once a week.

YOU USED **10** UNITS



OCTOBER

WATER YOUR YARD TWICE A WEEK

You don't believe that your plants are ready to die for the winter so you watered them five times a week to see if they'll stay green. You wasted 6 units. Oink, oink!

YOU USED **18** UNITS



OCTOBER

WATER YOUR YARD TWICE A WEEK

You are a good kiddo and washed the dishes everynight. However, you left the rinse water running while you washed, water rushing down the drain. Oink, oink!

YOU USED **14** UNITS



OCTOBER

WATER YOUR YARD TWICE A WEEK

You closed up the swamp cooler and drained it so the water won't run all winter. Now your pipes won't break during a cold snap.

YOU USED **8** UNITS



OCTOBER

WATER YOUR YARD TWICE A WEEK

You used your normal amount of water indoors (7 units) and watered your plants only twice a week.

YOU USED **11** UNITS



NOVEMBER

WATER YOUR YARD ONCE A WEEK

All your relatives came for Thanksgiving and you told them how much you love your new low-flow toilets that save 3 gallons per flush!

YOU USED **6** UNITS



NOVEMBER

WATER YOUR YARD ONCE A WEEK

You stopped watering your yard since your plants (the ones that are left anyway) were hardy and didn't need water.

Good Work!

YOU USED **7** UNITS



NOVEMBER

WATER YOUR YARD ONCE A WEEK

Your family is still using old toilets that use 5 gallons every time you flush. You waste 4 units every month. Oink, oink!

YOU USED **11** UNITS



NOVEMBER

WATER YOUR YARD ONCE A WEEK

Instead of raking up the leaves, you used a hose to spray them into the street. Lazy bones - that wastes water! Oink, oink!

YOU USED **9** UNITS



DECEMBER

DON'T WATER YOUR YARD

You want your plants to last forever, so you are still watering their dead, dried up leaves and stems. (Let them go!) Oink, oink!

YOU USED **14** UNITS



DECEMBER

DON'T WATER YOUR YARD

You wrote and starred in a play about Water Conservation at your school. Lots of other students learned from you!

YOU USED **5** UNITS



DECEMBER

DON'T WATER YOUR YARD

Every night you did a load of wash with nothing but your favorite shirt in it. (You know, the shirt with the picture of the Wild Corndogs on it.) Oink, oink!

YOU USED **9** UNITS



DECEMBER

DON'T WATER YOUR YARD

You used an average number of units indoors for bathing, cooking, cleaning, and toilets.

YOU USED **7** UNITS

Number of units of water used **1 glass bead = 1 unit** **Note: One unit = 748 gallons!**

January	February	March	April	May	June	July	August	September	October	November	December

Total number of units used:

Multiply by 748 to find number of gallons used: