

# FOCUS Wild Arizona

## Key Words:

**Election:** to use a vote to choose a person for a particular job

**Percentage:** a certain amount of the total

**Symbol:** an item or object that stands for or represents another object

In 1985, the Arizona Game and Fish Commission, the group that oversees wildlife management in the state, held an **election** as part of its “Arizona Wildlife Awareness” program. But this was not an ordinary election. Instead of adults voting for the person they believed could do the best job, children got to vote for the animal they believed could best serve as a **symbol** of Arizona.

Students from across the state had the opportunity to select four different animals: amphibian, fish, mammal and reptile. For each type of animal, there were four choices. The animal receiving the most votes became a symbol of the state. The results of this election are included in the table below:

Amphibian	Number of Votes	Percent of Vote	Mammal	Number of Votes	Percent of Vote
Arizona Treefrog	11,622	39%	Ringtail	9,627	
Colorado River Toad	8,520	28%	White-tailed Deer	8,963	
Red Spotted Toad	6,346	21%	Desert Bighorn Sheep	5,680	
Spadefoot Toad	3,486	12%	Javelina	3,524	
<b>Total</b>	<b>29,974</b>		<b>Total</b>		
Fish	Number of Votes	Percent of Vote	Reptile	Number of Votes	Percent of Vote
Arizona Trout	17,213		Arizona Ridge-nosed Rattlesnake	9,456	
Colorado River Squawfish	8,404		Gila Monster	7,837	
Desert Pupfish	5,751		Desert Tortoise	6,457	
Bonytail Chub	3,049		Regal Horned Lizard	4,855	
<b>Total</b>			<b>Total</b>		

## Do the Math:

While it is easy to see which animals won by looking at the number of votes, there are other ways to look at the results. For example, we could look at **percentage**. This basically means how much of the total votes each of the animals got. Percentage can be a difficult concept, but let’s use an example:

Pretend there was a pie on the table. The pie was cut into eight equal pieces. You ate one piece of pie and your friend ate two pieces. Clearly, your friend ate

more, but how much of the total pie did she eat? This is where percentages come in handy.

To figure out the percentage, divide the number of pieces each person ate by the total number of pieces. If we want to know the percentage of pie you ate, we divide one piece by eight total pieces, or 1 divided by 8. This gives us the number 0.125. Since decimals can be difficult to work with, we have a little trick. We can multiply this number by 100, to get the percentage. This means you ate 12.5% of the total pie. So what percentage did your friend eat?

Were you able to figure out your friend ate 25% of the pie? If not, try again. Remember, your friend ate two pieces of the eight total pieces. So we have 2 divided by 8, which equals 0.25. When we multiply by 100, we get 25%!

## More Math Fun:

What percentage of the total votes did each of the animals get? To start, we need to know how many total votes there were for each of the four categories of animal. Simply add up the number of votes for all four animals in each category. Write the totals in the gray boxes. The total for the amphibians category has already been done as an example.

Once we have totals, we can calculate percentages. The numbers are bigger than the pie example, but the directions are still the same. To determine the percentage of the votes that the Arizona treefrog received, we divide the number of votes that the



## By Eric Proctor

In the September–October 2011 issue of this magazine, we invited teachers to send in the results of classroom voting for two state symbols (mammal and fish). Now that we’ve introduced the concept of percentages, we can announce the results in the next issue ... **stay tuned!**

treefrog got by the total number of amphibian votes. This means dividing 11,622 by 29,974. (You probably want to use a calculator for this one!) This equals a large decimal that starts with 0.387736. If we multiply this number by 100, we get 38.7736%.

To make it a bit easier, let’s round this number. This means we will get rid of the numbers after the decimal. But there are some rules. First, keep all of the numbers to the left of the decimal and only the first number after the decimal. This leaves 38.7%. Now, if the number after the decimal is a 5 or larger, then we round up. This means we add one to the number before the decimal and remove the number after the decimal. If the number after the decimal is less than 5, then the number before the decimal will remain the same and the number after will be removed. In this case, the number is 7, so we round up. Our new number is simply 39%.

The percentages for each amphibian have been done for you. Can you figure

out the percentages for the fish, mammals and reptiles? Start by writing the totals for each category in the gray boxes. Then figure out the percentages and write them in the light blue boxes.

### Answer the Questions:

Based on the information in the table, which animal won in each category?

---

---

How many animals got more than 50% of the total votes? What were they?

---

---

---

Which group of animals had the closest election?

---

---

---

As you look at the names of the winning animals, do you notice anything in particular? 🦋

---

---

---

---

■ This feature is part of the Arizona Game and Fish Department’s Focus Wild Arizona program, a free

educational program for teachers, parents, students or anyone interested in learning about wildlife and

habitat. Visit our website, [www.azgfd.gov/focuswild](http://www.azgfd.gov/focuswild), to find exciting lessons and resources.