Adding Up Pet Populations

OBJECTIVE:

Students will learn about "populations" and "pet overpopulation" and why it's important to control pet overpopulation.

ACTIVITY OVERVIEW:

Students will do two math exercises to reinforce their understanding of populations and pet over-population.

MATERIALS:

- Dog or cat manipulatives; these can be purchased at a teacher supply store (if these are not available, peanuts, beans, coins, etc., can be used instead)
- Large cups
- Worksheet: "Adding Up Pet Populations"

ACTIVITY:

Preliminary Discussion

- Define "population" and discuss examples of populations of people, pets and wild animals.
- Define "overpopulation" and discuss the issue of "pet overpopulation." Pet overpopulation means that there are too many pets being born and not enough homes for all of them. Because people take care of pets, they're also in charge of their populations. Over the course of many years, our society hasn't properly controlled pet populations and we now have many pets that are ending up at animal shelters, like the Dumb Friends League, and others without homes that are living on the streets.
- Why do pets need to live in homes and be taken care of by people? Discuss the fact that pets depend on people for all of their needs and cannot survive on their own.
- What can happen to pets when they don't have homes and end up living on the streets? Discuss the many dangers they might encounter, such as getting hit by a car, harsh weather, ingesting a poisonous substance, fighting with other animals or being abused by people.
- Explain what "spay" and "neuter" surgery is and why it's so important. Pets that have this simple procedure won't have litters of unwanted babies. They'll also be healthier, because this surgery helps to prevent various types of cancer and infections, and they'll be friendlier and less aggressive. The Dumb Friends League's skilled veterinarians spay and neuter all cats, dogs and rabbits that we adopt out.

Procedure

The first activity will illustrate how litters of cats and dogs can add up very quickly. Give each student a cup full of the manipulatives. Have them take out two cats or dogs and pretend that one's a male and one's a female. They didn't get their pets spayed and neutered, so shortly after they turned six-months-old, they produced a litter of six babies. Each child should take six more pets out of their cup and add them up. Ask them how it feels to have eight pets in their home now? Is it difficult to care for that many pets? Do they have enough time and money to care for them all?

Have the students pair up the pets they have (they should each have four pairs). They still haven't spayed or neutered their pets, so, each pair will produce six more babies. Have them take out six pets per pair and add them up. Now they have 32 pets! Discuss what kinds of problems they have caring for this many pets?

You can continue the activity as long as you like. This exercise helps students realize how the popu-

lations of companion animals can quickly get out of control, and why it's so important that people make responsible and compassionate decisions, like spaying and neutering their pets.

After this exercise, pass out the worksheet, "Adding Up Pet Populations." Students will need to continue to use the manipulatives with the worksheet.

Post-Discussion

❖ Discuss the results of the worksheets. What surprised students the most about the math problems?

❖ What did they learn about pet overpopulation?

❖ How does spay and neuter surgery help alleviate the pet overpopulation problem?

❖ What are some other things people can do to help reduce pet overpopulation? Discuss the following ideas: adopting pets from an animal shelter, like the Dumb Friends League; being a responsible pet owner and making sure your pets are safe, happy and healthy; making a commitment to your pets for as long as they live; having your pets live inside so they don't have the opportunity to get lost; making sure that your cats and dogs always wear collars and identification tags.

EXTENSION ACTIVITY:

Have the students check the newspaper for all of the pets that are "for sale" and add them up.

Adding Up Pet Populations

1. When you started with two pets and they had a litter of six babies, how many total pets did you have? Write out the addition problem:

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2. Take the total number above and divide it into pairs. If each pair has six babies, what is your total number of pets? Write out an addition problem and a multiplication problem that shows how you came up with your answer.

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3. Take your answer from question #2 and figure out how many pairs you now have. Write out the division problem.

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4. Take your answer from question #2 and double it. How many pets do you have now? Write out the addition problem.

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