Title: **Mammal Story Problems (Math)**

**Grade/Age Level:** 5th grade  
**Length:** 30-45 minutes

**Standard(s):** Math 5.7.1 *Analyze problems by identifying relationships, telling relevant from irrelevant information, sequencing and prioritizing information, and observing patterns.*

**Objectives:** The students will write five story problems about mammals using irrelevant information 100% of the time.

The students will correctly solve five story problems about mammals with irrelevant information 4 out of 5 times.

The students will correctly identify the irrelevant information in the story problems about mammals 100% of the time.

**Teacher Preparation:** The teacher will create sample story problems that use mammals and have irrelevant information. The problems will be typed on a handout for the students. The teacher will select individuals to be partners when they switch papers. The teacher will also create five story problems about mammals with irrelevant information to assess the students.

**Motivation/Introduction:** We have been discussing mammals the past few days and we have already learned an abundance of information. Today we are going to create our own story problems with relevant and irrelevant information. For example, yesterday I went to the zoo and saw a kangaroo, monkey, elephant, giraffe, and cow. I then had an ice cream cone. Considering what we have been discussing in class, what is irrelevant in the example that was just given to you? (Bloom’s Taxonomy- Knowledge) Why is it irrelevant? (Bloom’s Taxonomy- Knowledge)

**Step-by-Step Procedure:**

1. The students will be given a paper with a few examples of story problems that contain irrelevant information.
2. The students will then discuss as a class what information is needed to solve the problem and what information is irrelevant.
3. After the students complete the handout, they will create five story problems about mammals that contain irrelevant information.
4. After the problems have been created they will switch with their assigned partner and solve the problems and find the irrelevant information.
5. With their partner, the students will select their favorite problem to share with the class.
6. While the story problems are being shared, the students will solve each problem and write down the irrelevant information.
7. Once all of the problems have been shared, there will be a class discussion on why some information was irrelevant to the problems.

**Gardener’s Multiple Intelligences used are Logical/Mathematical, Intrapersonal, Interpersonal, and Verbal/Linguistic.**

**Closure:** Now that we have discussed irrelevant information found in story problems we are now going to write a short story about a mammal that does not contain irrelevant information.

**Adaptations/Enrichment:** For a student with a learning disability in written expression an adaptation would be to have their partner or an aide write their story problems as they dictate them. For a student with a learning disability in math, they will have the opportunity to create and solve two problems instead of five, so they do not become as frustrated.

**Self-Reflection:** The teacher will reflect upon the lesson and make sure that the students were engaged and learned about irrelevant information.
Sample Story Problems About Mammals

On Wednesday there were 5 cages with 23 monkeys in each cage at the zoo. On Thursday the veterinarian took two monkeys from each cage. The veterinarian’s name was Bill. How many monkeys were found in all of the cages on Thursday (after the veterinarian took the monkeys)?

There was a farmer that had 13 cows, 7 pigs, and 25 horses. He also had 337 rainbow trout in his pond. How many animal legs are found on the farmer’s land?

The monkeys were making banana cookies in the school cafeteria. They were mixing the ingredients as follows: 3 ¼ cups of mashed bananas, 17 ½ cups of sugar, 2 ¼ cups flour, 44 ½ cups milk, and 5 eggs. They baked the cookies at 350 degrees for 45 minutes. How many cups were used of all ingredients to make the banana cookies?
Story Problems Galore

Directions: Read the story problems below. Solve each problem and show your work. Also, identify any irrelevant information.

1. There are fifty states in the United States. In each state there are 27 hippopotamuses and 13 elephants. The capital of Ohio is Columbus. How many animal legs are found in Ohio?

   Irrelevant Information
   _______________________________________________________________
   _______________________________________________________________
   _______________________________________________________________

   Answer: _____________________________________________________

2. There are 474 kangaroos in the Australian Outback. One-third of them carried a Joey in their pouch. The koala bears had 72 babies this year. How many Joeys are there?

   Irrelevant Information
   _______________________________________________________________
   _______________________________________________________________
   _______________________________________________________________

   Answer: _____________________________________________________
3. In the Sahara Desert there were three hundred camels looking for water. Twenty-seven of them found water within seventeen miles of their starting point. One hundred twelve found water within thirty-two miles of their starting point. Seven camels found water eighty miles from their starting point. How many camels found water within fifty miles of their starting point?

Irrelevant Information
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Answer: ___________________________________________________________________

4. In the Rain Forest there were 67 jaguars and 25 lemurs. Throughout the day the animals traveled to the Amazon River. How many legs are found in the Rain Forest?

Irrelevant Information
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Answer: ___________________________________________________________________

5. One day the three bears were making porridge for breakfast. The porridge included the following ingredients: 7 ½ cups oats, 6 cups strawberries, and 2 ¼ cups sugar. Goldilocks thought the porridge was too runny. There were 37 ¼ cups of ingredients in all. How many cups of water were used to make the porridge?

Irrelevant Information
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Answer: ___________________________________________________________________