## African Safari

Summary
This lesson focuses on Operations and Algebraic Thinking 1, specifically with two-step word problems, by taking your students on an African Safari.

## Main Core Tie

Mathematics Grade 2
Strand: OPERATIONS AND ALGEBRAIC THINKING (2.OA) Standard 2.OA. 1

## Additional Core Ties

Mathematics Grade 2
Strand: MEASUREMENT AND DATA (2.MD) Standard 2.MD. 10

## Time Frame

2 class periods of 30 minutes each
Group Size
Small Groups
Materials
Suggested Materials:
12"x15" white paper, one per group
pencils
map of Africa, one per group
counters, (ex:unifix cubes, disks, square tiles,etc.) for each group
pictures or video of African animals for launch

## Background for Teachers

Background:
Your students need to be familiar with solving one-step word problems, and efficiently use manipulatives, models or objects to represent these problems.
Teachers need to have established procedures for working with maniuplatives.
Students need to also know the meaning of symbols to represent the unknown.
Teacher and students need to be familiar with solving all problems types: adding to; taking from; putting together/taking apart and comparing.
Teachers should be familiar with asking guiding questions during and after this lesson. See attached Capacity Building Series website for support.
See attached USOE curriculum guide for additional information and supports.

## Student Prior Knowledge

Prior Knowledge:
Students need to be comfortable with one-step problem solving within100 and working collaboratively.
Students should be familiar with understanding the unknown in all positions with addition and subtraction.
Students should be familiar with using manipulatives, drawings, and model to represent and solve
word problems
Students can write equations to represent problems using a symbol for the unknown

## Intended Learning Outcomes

Students should be able to use addition and subtraction to solve a two-step word problem, using manipulatives, drawing or model to represent the problem.
Targeted Mathematical Practices: MP1; MP2; MP4: and MP6

## Instructional Procedures

Students will pretend to be going on an African Safari and will identify five animals that they saw. In small groups they will draw or use manipulatives to represent these animals and then determine how many feet, eyes, heads and tails there are.
On the second day, using the same animals, students will determine how many feet, heads, tails, and eyes after one animal is eaten by a crocodile.

## Strategies for Diverse Learners

Differentiation can include
limiting the amount of animals to two for struggling students providing pictures of animals for students to use
to challenge students have them write several equations, using associative and commutative properties

## Extensions

Students will construct a bar graph or pictograph representing their data.
Assessment Plan
Formative Assessment
do the students understand the task
ensure that students are generating the correct amount of animals (based on differentiation strategies)
does the number of feet, heads, tails, etc. correctly match the number of animals
do the equations correctly represent the drawings or manipulatives used
are students working well collaboratively
Extension: does the graph match the data
Rubrics
African Safari

## Authors

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