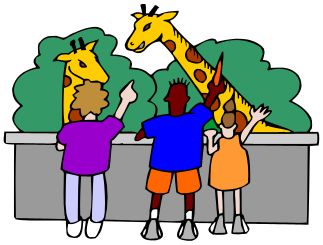
Culminating Task: Atlanta Zoo

Approximately 1 day



STANDARDS FOR MATHEMATICAL CONTENT

MCC1.MD.4. Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

MCC.1.OA.1. Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

MCC1.OA.5. Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).

STANDARDS FOR MATHEMATICAL PRACTICE

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

BACKGROUND KNOWLEDGE

In order to complete this culminating activity, students should have had prior experiences reading and creating tally charts and tables. They should have also had opportunities to work through several types of problem solving activities using the C-R-A model and working with three addends.

ESSENTIAL QUESTIONS

- How do tables help us organize our thinking?
- How are the properties of addition useful when problem solving?

MATERIALS

- Paper and pencils
- Manipulatives such as linking cubes, or counters
- *Animals on Board* by Stuart J. Murphy or a similar animal book
- Atlanta Zoo Recording Sheet

GROUPING

Individual

TASK DESCRIPTION, DEVELOPMENT AND DISCUSSION

Part I
Read *Animals on Board* by Stuart J. Murphy or a similar animal book. After reading the book ask students the following questions:

- What if we only knew the total number of Animals?
- How could we determine how many of each kind?

Allow them to share and model their thoughts.

Part II
Students will be using and creating tables/tally charts, as well as working with a sum and discovering the various addends to solve the problem. The students will come up with a variety of solutions. They will be demonstrating their ability to reason through a problem.

The Atlanta Zoo will be receiving 16 new animals. Some are zebras, some are chimpanzees, and some are giraffes. How many of each kind could they be receiving? Find as many combinations as you can. Use data tables to record your responses. Answers will vary.

FORMATIVE ASSESSMENT QUESTIONS

- Is there another combination for the zoo animals?
- Have you found all of the possibilities? How do you know?
- How many more of animal A do you have in this table than animal B or C?
- How did you know the total of each animal?
- How does creating a table help you determine your addends?

DIFFERENTIATION

Extension

- Students could be given a greater sum, or amount of animals.
- Write and solve their own story problem with three or more addends.

Intervention

- Provide manipulatives or paper cut outs of animals
- Students can use only two types of animals.
- They can act out the scenario in a one-on-one interview with the teacher.

Name:_____ Date:_____

The Atlanta Zoo

The Atlanta Zoo will be receiving 18 new animals. Some are zebras, some are chimpanzees, and some are giraffes. How many of each kind could they be receiving? Find as many combinations as you can. Use data tables to record your responses.