Grade Level: 3-5
Time Estimate: 2-3 days

ORDER OF OPERATIONS / LESSON OVERVIEW

Objectives

The students will:
- review the four basic operations;
- discover the importance of the order of operations;
- solve numerical expressions using the order of operations;
- create numerical expressions when presented with a word problem;
- relate their knowledge to real world situations.

Lesson Summary

Part 1. Introduction (5 – 10 minutes)
Students discuss the importance of math in the scientific world. How is math used aboard the M/V OCEARCH while researchers study sharks? How is math used to track sharks as they migrate all over the world's oceans?

Part 2. Basic Operations (10 – 20 minutes)
Students review basic math operations – addition, subtraction, multiplication, and division. Then students discuss how these functions are used by OCEARCH scientists.

Part 3. The Order of Operations (30 – 45 minutes)
Students learn the order of operations and how important it is to follow this order when solving math problems. Example problems included.

Part 4. Real World Applications (30 – 45 minutes)
Students solve word problems based on real scientific information collected by OCEARCH

Activity 1. Creating Word Problems (30 – 45 minutes or take home assignment)
Students use the OCEARCH Global Shark Tracker™ to collect information and then create and solve their own word problems using the order of operations.

Materials
- Computer with internet access
- Paper
- Pencil
- Calculator (optional)