

Growing Animals



Objective

Students explore measurement and relationships

Materials

- Balance scale
- Manipulative cubes
- Plush or plastic Shamu toy (or other ocean animal toy)
- Measuring tapes (enough for students to use with partners)
- Bathroom scales

Background

Killer whale trainers periodically weigh and measure the whales to see how they are growing. Other animals at SeaWorld are weighed and measured, too.

Action

1. Do the following exercises with your students, either as a class or in cooperative learning groups.
2. After each problem, ask students to share with the class how they worked out an answer.

Exercise #1

Corky measures about 6 m from the tip of her rostrum (beak) to the tip of her tail. Takara measures about 4 m from the tip of her rostrum to the tip of her tail. Who is bigger? Next, the trainers are going to weigh the whales. Which of the two do you think will weigh more?



Exercise #2

Using manipulatives, help students balance a scale to investigate the weight of a plastic Shamu or other toy animal.

Exercise #3

Who do you think is bigger, a baby killer whale or you? What are some different ways we could find out for sure? What is bigger, SeaWorld or your school playground? What are some ways we could find out for sure?

Exercise #4

Students measure and weigh each other. Repeat this exercise in several months. Who has grown? (For grades 2-3) Measurement in the U.S. is usually in feet or inches and in pounds, rather than meters and kilograms. Scientists, however, use the metric system. Help students convert their weight to kilograms. (Two pounds equals roughly 1 kilogram.) Help them convert their height to centimeters. (Two inches equals roughly 5 centimeters.)