



ACTIVITY 20: Baby Blues

Concepts

- Blue whales are the largest animals to have ever lived on the planet.
- Blue whales consume great quantities of food and grow rapidly during their first months of life.

Materials

- Blue whale background information

Time

20 minutes

Subjects

- Math
- Biology

Procedure

Baby blue's food

- a. Visualize how much food it takes to support a blue whale.

- Baby blues are fed 189 liters of milk per day. Have students bring empty 1-liter soft-drink bottles to school and pile in a corner to see how much milk that would be.

- Recycle the bottles at the end of the experiment and research what materials the plastic bottles are made into (insulation fiber for ski jackets, sleeping bags, rulers, coasters, shoe laces, bookmarks, etc.). Point out that plastics in the oceans are a hazard for whales and other sea life. Plastic buckets and bottles have been found in the digestive tracts of whales and has been the cause of death

for a number of marine mammals.

- b. Mix equal parts of butter and whipping cream to create "whale milk" (the fat content—50%—will approximate that of whale's milk). Pass a comb through the milk to illustrate how it clings to the baby whales' baleen.

Size and growth

- c. Divide students into groups and have them measure out the length of a newborn blue whale. Mark that length on the rope with a ribbon. Then stretch out the rope to measure the length of a 6-month-old calf. Conduct the math calculations below and figure out how much baby blues grow each month. Tie a ribbon on the rope to mark each month's growth on the rope.
- d. Discuss how much milk and energy it has taken for the mother to feed that 6-month-old calf. Blue whales stay with their mothers until they are a year old. With 1 year of pregnancy and 8 months of nursing, it is understandable that blue whale mothers give birth to only a single calf every 3 to 4 years. With such a low birth rate, the recovery of these great whales can be expected to be very slow.

Teacher key to student worksheet #20

1. Newborn blue whale calf size: 7 meters (23 feet). Six-month-old blue whale calf size: 14.6 meters (48 feet).
2. How many meters did the calf grow per month? 1.3 meters (4.2 feet)
3. Newborn calves weight 30 tons (60,000 pounds), and they add 200 pounds (91 kilograms) per day. What is the weight of a baby blue at 6 months? 36,000 pounds (16,329 kilograms)

Blue whales are the largest animals to have ever lived on the planet.



4. How many tons will the 6-month calf weigh? (There are 2,000 pounds in a ton.)
5. How many liters of milk has the calf consumed in 6 months? (189 liters/day) *34,020 liters (8,987 gallons)*

Blue whale mothers give birth to only a single calf every 3 to 4 years.

Name _____

Date _____

Student Activity #20

1. Newborn blue whale calf size: _____ meters (_____ feet). Six-month-old blue whale calf size: _____ meters (_____ feet).
2. How many meters did the calf grow per month? _____ meters
3. Newborn calves weigh 30 tons (60,000 pounds), and they add 200 pounds (91 kilograms) per day. What is the weight of a baby blue at 6 months? _____ pounds
4. How many tons will the 6-month calf weigh? (There are 2,000 pounds in a ton) _____ tons
5. How many liters of milk has the calf consumed in 6 months? (189 liters/day) _____ liters (_____ gallons)