

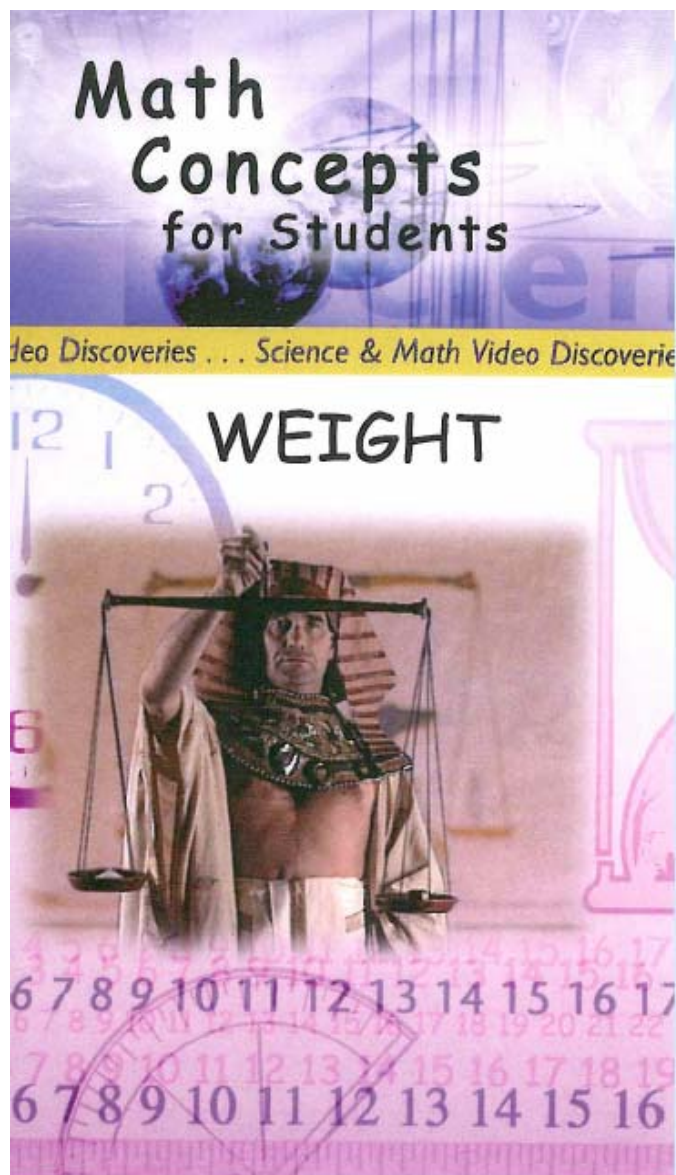
#12200 WEIGHT

CLEARVUE/SVE, 2004

Grade Level: 1–6

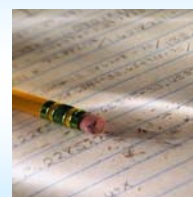
9 Minutes

CLEARVUE & SVE



CAPTIONED MEDIA PROGRAM RELATED RESOURCES

[#11791 RATIOS](#)
[#12186 SCALE](#)
[#12190 TIME](#)
[#12199 LENGTH](#)



MATH CONCEPTS FOR STUDENTS

Weight



Learning Objectives

After completing the program and participating in discussion, students will be able to:

- Understand why the weight of an object was important in history and trade;
- Relate facts about gravity and its relationship to weight;
- Describe the difference between weight and mass; and
- Explain the importance of a universal standard of weight.

Review Questions

1. Ask students to explain why math is needed to understand weight. How do we use math every day to understand weight, perhaps without even realizing it?
2. How did the history of trading determine the need for a way to measure an object's weight? How did this contribute to the ways we understand weight today?
3. What is weight? What is mass? How do these two concepts differ?
4. How is weight determined by gravity? If standing on top of a mountain, would your weight be less or more than on lower ground? Would your mass be affected?
5. The program discusses the "grande k"? What is it? Why is it used?
6. Where was the scale invented and when? What was the purpose of the scale?

Target Vocabulary

scale	mass
Troy pound	matter
gravity	kilogram
Grand K	

Activities

1. Ask students to draw a timeline of people and places that have influenced the concept of weight and weight measurement. What historical events have influenced the evolution of the concept of weight? What were some examples of different standards of weight? When did a universal standard of weight originate? They may need to do some research at the school library. Ask students to provide their artwork on a posterboard and write brief descriptions of each important person or event that influenced the concept of weight.
2. Have students bring in two smaller play items from home--stuffed animals, trucks, etc. Pair students together, so they have four items total. Using a scale, have them weigh each of their items and record its weight. In a paragraph, have them answer the following questions together: Which item is heaviest? What is the item made of? Which item is the lightest? What is it made of? In ancient times, which item would be the most valuable to trade? Why?



Math Concepts for Students

Name _____

Weight

What do you remember from the program? After viewing *Weight*, fill in the blanks using words from the Word Bank.

1. For ancient traders, weight determined the _____ of an object.
2. In 3500 B.C., the scale was invented by ancient _____.
3. The first _____ were invented to weigh gold.
4. The _____ is a unit of mass used to measure precious metals.
5. _____ influences the weight of an object.
6. There are _____ in one Troy pound.
7. The farther you are from the _____ of Earth, the pull of gravity is less, and the lighter your weight is.
8. _____ is the amount of matter an object contains.
9. Any substance that has mass is made up of _____.
10. The meter and the _____ are two basic units of the metric system.
11. Scientists continue to search for the ultimate standard of mass, because all manmade objects can be _____.

Word Bank

Egyptians	center	10 ounces
mass	matter	gravity
meter	kilometer	edge
unreliable	gram	surface
Italians	reliable	scales
12 ounces	Troy pound	value

Weight

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1. For ancient traders, weight determined the value of an object.
2. In 3500 B.C., the scale was invented by ancient Egyptians.
3. The first scales were invented to weigh gold.
4. The Troy pound is a unit of mass used to measure precious metals.
5. Gravity influences the weight of an object.
6. There are 12 ounces in one Troy pound.
7. The farther you are from the center of Earth, the pull of gravity is less, and the lighter your weight is.
8. Mass is the amount of matter an object contains.
9. Any substance that has mass is made up of matter.
10. The meter and the kilometer are two basic units of the metric system.
11. Scientists continue to search for the ultimate standard of mass, because all manmade objects can be unreliable.

Word Bank

Egyptians	center	10 ounces
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