Interpreting Graphs (More Education Means More Money)

Objectives	Time frame to Complete
1. Students will use problem solving skills to interpret graphic information 2. Students will work with math concepts involving whole numbers and decimals.	30 to 40 minutes
Standard(s) Addressed in Lesson	Using Math to Solve Problems and Communicate
Benchmark(s) Addressed in Lesson	M.4.1; M.4.17; M.4.24

Materials

- Worksheet: "More Education Means More Money"
- Answer Key: "More Education Means More Money"
- Graph: "More Education Means More Money" from *U.S. Bureau of Labor Statistics*, http://www.careerinfonet.org/finaidadvisor/earnings.aspx?nodeid=21

Activities

Step 1   Begin the class by brainstorming about the impact more education might have on student's lives.

Step 2   Distribute copies of the graph "More Education Means More Money." Ask the students to look at the graph and describe how numbers are being used. Ask them what type of graph this is? Is there more than one set of data being represented?

Step 3   Provide a short review of some basic terminology and concepts that will be used in the lesson. Some vocabulary terms include: annually, median, salary, associate degree, and bachelor degree. Students should have prior knowledge of decimals but a short review will remind them of the particulars that can be forgotten. (Lining up decimals, counting decimals places, etc.)

Step 4 Distribute copies of the "More Education Means More Money" worksheet. Explain to students that they will use the information presented in the graph to demonstrate their ability to interpret graphic information as well as perform mathematical calculations. Allow students time to skim the worksheet and answer any questions that might come up. Students can work independently or in pairs to complete the word problems.

Step 4   When the worksheets are completed, provide the answers and demonstrate how each answer was calculated. This procedure will allow students to ask questions concerning reading graphs, calculations, and how education can impact future earnings.

Assessment/Evidence

"More Education Means More Money" Worksheet

Adaptations for Beginning Students

Beginning students can work with calculators to do calculations.

Worksheet can be completed as a large group.

Adaptations for Advanced Students

Advanced students could be asked to make a choice on what level of education they think is the best for them and give reasons to support their decision. Student response could be given in paragraph form. Also, advanced students could be asked to choose a career and have them research the level of education required and what the approximate annual earnings would be.

More Education Means More Money

Name_____   Date_____

1. What is the title of the graph?

2. The term median means the same as average.   True   False

3. Using the information from the graph, calculate the difference in annual earnings of a person with some college and a person with no high school diploma.

4. According to the graph, the median weekly salary of a person that has an associate's degree is how much?

    What would this person earn each month (based on 4 weeks per month)?
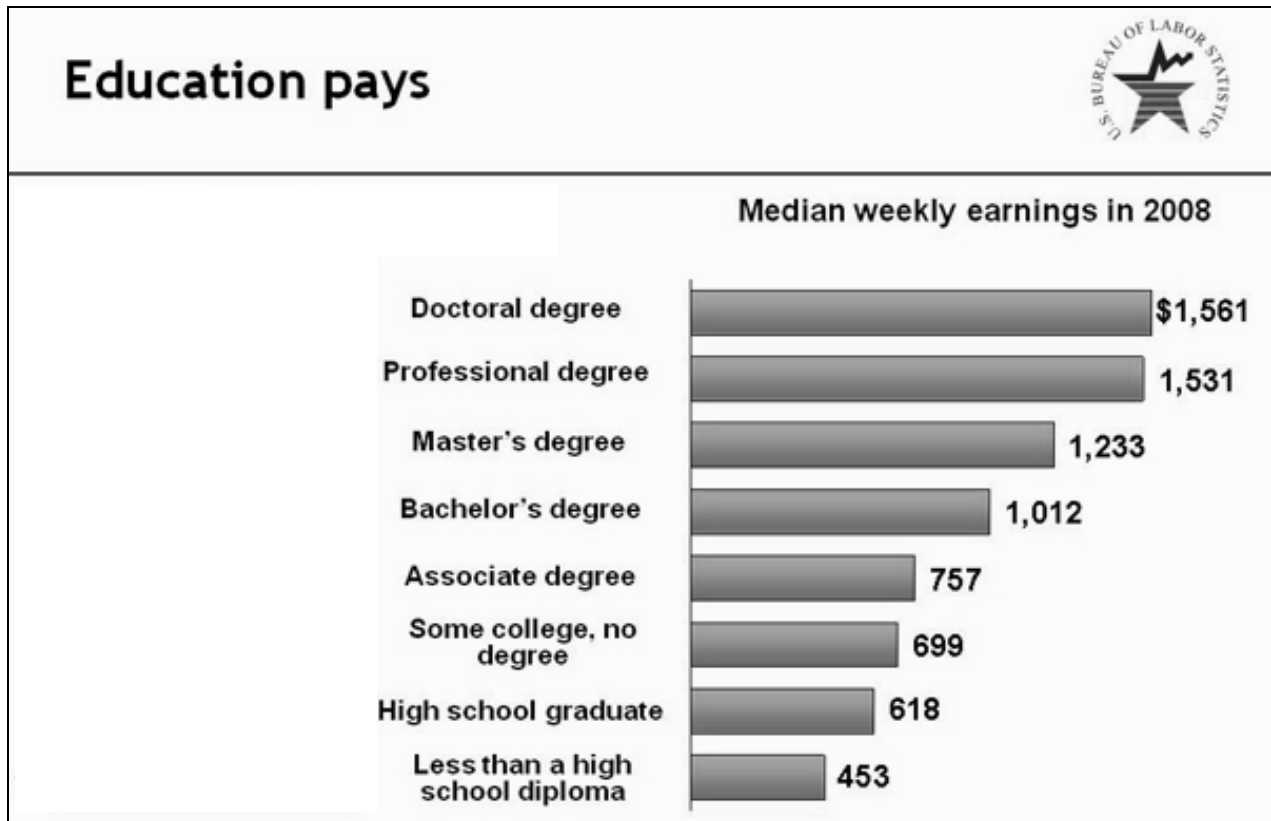
    What annual salary would this person earn?

5. Which of the levels of education have median weekly earnings below $600?

6. Calculate the difference between the median salary of a person with an Associate Degree and the median salary of a person with No Diploma.

7. What level of education would you like to complete?

Answer Key: More Education Means More Money

1.   What is the title of the graph?   *Education Pays*

2.   The term median means the same as average.   True   False

3.   Using the information from the graph, calculate the difference in annual earnings of a person with some college and a person with no high school diploma.   ($699-$453) x 52 = $12,792

4.   According to the graph, the median weekly salary of a person that has an associate's degree is how much? $757

          What would this person earn each month (based on 4 weeks per month)? $757 x 4 = $3028

          What annual salary would this person earn? $757 x 52 = $39,364

5.   Which of the levels of education have median weekly earnings below $600?
Some High School (No Diploma)

6.   Calculate the difference between the median salary of a person with an Associate Degree and the median salary of a person with No Diploma. $757 - $453 = $304

7.   What level of education would you like to complete?

More Education Means More Money

You will earn more if you have more education. You will also be less likely to become unemployed.
A survey from 2008 shows that average earnings grow from $453 to $618 per week, just by earning a high school diploma. Getting a college Bachelor's degree increases average earnings to $1,012 per week.
More education pays off in higher earnings.

Education pays

U.S. BUREAU OF LABOR STATISTICS

Median weekly earnings in 2008

Education	Median weekly earnings
Doctoral degree	$1,561
Professional degree	1,531
Master's degree	1,233
Bachelor's degree	1,012
Associate degree	757
Some college, no degree	699
High school graduate	618
Less than a high school diploma	453