

John Petretich, Virgin Timber Lumber Company 3-5 Lesson

Young Entrepreneurs in Action: John Petretich

Video Link: http://youtu.be/JrFmG_t1f_o

OVERVIEW:

Students will add and subtract money that can be made by selling tables to get the effect of what happens when the price is more or less and when John does more or less business in a given period of time. Potential discussion questions are provided to help students understand how John makes money.

NEXT GENERATION STANDARDS:

M.3.OA.3 use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. (CCSS Math.3.OA.3)

M.3.OA.4 determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 \times ? = 48$, $5 = ? \div 3$, $6 \times 6 = ?$. (CCSS Math.3.OA.4)

M.4.OA.2 multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem and distinguishing multiplicative comparison from additive comparison. (CCSS Math.4.OA.2)

M.4.OA.3 solve multi-step word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted, represent these problems using equations with a letter standing for the unknown quantity and assess the reasonableness of answers using mental computation and estimation strategies including rounding. (CCSS Math.4.OA.3)

M.5.NBT.2 explain patterns in the number of zeros of the product when multiplying a number by powers of 10, explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10 and use whole-number exponents to denote powers of 10. (CCSS Math.5.NBT.2)

M.5.NBT.5 fluently multiply multi-digit whole numbers using the standard algorithm. (CCSS Math.5.NBT.5)

ENTREPRENEURSHIP STANDARDS:

- G.02 Describe functions of money (medium of exchange, unit of measure, store of value)
- G.03 Describe the sources of income (wages/salaries, interest, rent, dividends, transfer payments, etc.)

LEARNING OBJECTIVE(S):

Compare one week's earnings to the next and understand which is higher and why. Understand how cost impacts product price and profit.

MATERIALS:

Pencil & paper

ACTIVITIES:

1. Show students the Virgin Timber Lumber video so they can gain a better understanding of how entrepreneurship works.
2. Discuss Entrepreneurship using the following discussion questions.
 1. Why does John sell furniture?
 2. What happens when John sells more furniture this month than he did last month?
 3. Who is John's boss?
 4. Do you know anyone who is his or her own boss?
 5. What do they do?
 6. If you make furniture, what do you have to buy to make it? (wood, tools, materials)

These are your costs related to the product. So if you buy materials for \$100 and make a table that you sell for \$600, \$600 is the *PRICE*, \$100 is *COST* to make the product, which leaves you a *PROFIT* of \$500.

For 5th Grade, discuss profit percentage:

On the other hand, **profit percentage** is calculated with cost price taken as base

$$\text{Profit percentage} = \frac{\text{Net Profit}}{\text{Costprice}}$$

Suppose you buy something for \$100 and sell it off for \$150.

cost price = \$100

selling price (revenue) = \$150

profit = \$150 - \$100 = \$50

profit percentage = \$50/\$100 = 50% (profit as percentage of cost price)

profit margin = \$50/\$150 = 33.33% (profit as percentage of selling price or revenue)

3. Practice math problems that will help students understand this cost/profit relationship.

3rd grade:

- 1) John sells his chairs for \$100 each. Last week he sold 8 chairs for \$800. This week was better and he will make \$1000. How many chairs did John sell this week?
- 2) If John's cost to make a table is \$150 and he sells the table for \$800, what is John's profit?
- 3) John sold 6 chairs and 1 table as a set for \$1000. The price for the chairs was \$400. What was the price for the table?

4th grade:

- 1) It costs John \$400 to make a table that he sells for \$1000. It costs John \$200 to make the chairs for the table that he sells for \$600. How much does John sell the table and chairs for? What is John's profit after his costs are subtracted?
- 2) John bought a truck full of wood for \$500. With that wood, he made two tables which he sold for \$1000 each and ten chairs which he sold for \$200 each. What was the total amount John sold the tables and chairs for before subtracting his costs? What is the profit on the entire sale?

- 3) John has 300 pieces of wood which cost about \$30 each. If he uses 10 pieces of wood to make a table, what was his cost to make the table? If he wants to make \$300 profit on the table, what price does he need to charge for the table?

5th Grade

- 1) John's business is doing well, but he realizes he needs to increase his prices if he is going to hit his goals for the year. If he currently makes \$400 on a table priced for \$1000 and the cost for making the table is \$600, what price does he need to put on the table to make \$600 in profit?
- 2) If John buys a truck full of wood planks for \$500, how many tables does he need to make to break even on his purchase if makes \$400 profit on each table. What happens after he makes that amount of tables?
- 3) If John sells 5 tables for \$1000 each and 40 chairs for \$200 each, how much does he make? If 40% of the total selling price was John's cost to make the project, how much was the cost?

Answers:

3.1: 10 chairs

3.2: \$650

3.3: \$600

4.1: \$1600; \$1000

4.2: \$4000; \$3500

4.3: \$300; \$600

5.1: \$1200

5.2: 2; After he makes 2 tables, the other tables made from the lot are 100% profit

5.3: \$13,000; \$5200