



## **BIZ KID\$**

### **Episode 202: "Money Math – Who Needs It?"**

#### **Day Two Introduction**

Play part of the theme music for "Biz Kid\$" from the episode intro to motivate and engage the students. Then stop the music, welcome the students/youth to today's session, and introduce yourself. If needed, ask students to please use their nametags.

#### **Review and Connect with the Previous Session**

The main message in Episode 202 is that math is fundamental to financial education.

Third graders were using money math skills at their Market Day by counting, adding, subtracting, and estimating. These young students had already learned the importance of setting a goal and checking the results.

The topic of determining the amount of a tip or gratuity, based on the quality of goods or services, was explored. Math skills involved included moving the decimal point, simple percentages, and using estimation skills.

Andy, the Biz Kid with a passion for golf, uses his knowledge of the game to explain similarities with the stock market. He told us that the stock market is founded on the basis of math; and that everyone should know ratios and percentages in order to calculate the value of a stock. Make your money work for you!





Math skills such as geometry, physics, estimation, and calculation are used in many careers, such as mechanical engineering, drafting, operating a crane, in sports, and being an astronaut. There are many more careers that involve math skills.

The character known as “The Calculator” is on a mission to save the world from faulty money math. He said that if you practice the skill of “rounding up to ten”, you can decide if a sale item is actually a good deal. (She bought the blouse on sale!)

We learned that the “Sellers’ Cost of Production” has a huge impact on whether or not a business will make a profit. That includes all costs required to make one unit of a product, including transportation, supplies, employee wages and benefits, shipping and daily operational costs. These calculations require fundamental math skills.

Biz Kids Laura, the sewing whiz, and her partner Alex, the math whiz, own and operate the business “Lava Bags”, also referred to by the owners as “Money Bags!” They recycle used clothes and accessories, and make some purchases in bulk, to create Lava Bags. They make 55% profit on each bag, and plan to expand the business to increase volume and total profits. They emphasize that “time is money”!!!

The jump-roping Biz Kids wrote a rhyme about the “Rule of 72”, an investment method of saving money and doubling the amount, in a tax-deferred account.

Sir Counts-a-Lot’s quest was to start his own business, but he and Sir Robin didn’t know enough math skills to survive crossing the bridge. Finally Sir





Chance, who had mastered the math skill of probability, tossed the Big Scary Man off the bridge and went on to succeed in life!

Peter, the chocolate confector, found a way to increase his volume of business by selling to wholesalers, which increased his profits. He uses basic math skills every day, though he also took AP Calculus.

Finally, the Biz Kids Zack, Jamie, Joseph, Laura, and Emily created the “Cool Schools Challenge”. By using math skills, they helped the 20 participating schools save over half a million dollars and reduce carbon usage with simple behavioral changes.

This episode has a lot of information, but it clearly demonstrates the need for everyone to acquire as many math skills as possible. You will use them every day, and knowing math will contribute to your financial success. Biz Kids use math...so keep studying!!!

## **ACTIVITY**

You are going to create a one page menu for an imaginary new school restaurant that will serve breakfast, snack, and lunch items.

You must include a minimum of three items per category:

- Entrees
- Drinks
- Desserts
- Sides

No single item may exceed five dollars in cost.





You must set prices for each item in every category, but you may also create “specials” where multiple items are offered for a bargain price.

No items that are inappropriate for school consumption may be included.

You will have 20 minutes to complete this assignment.

If you have enough time, illustrate menu items, and provide a detailed description of the entrée choices.

Be sure that your name is on your menu!

Once menus are completed, you will be exchanging them with other classmates.

On a separate half sheet of paper, a classmate, the “buyer”, will write their order from your menu, as well as their name.

Both the menu and order will be returned to you, the “seller”, for totaling the cost of their purchase.

Next, return the order form and cost of purchase to the “buyer”, who then will determine the amount of the tip or gratuity.

(We’ll assume that all service is at least “good” and that everyone will receive a tip.)

Finally, the menu and order form are returned to the “seller”, who created the menu.





## Summary and Review

In the few minutes we have left, what are some reasons you can now state for studying math? (Call on as many volunteers as possible.)

Is there any one thing that captured your attention in this episode that will help you be more successful? (Hopefully students will respond and give feedback.)

Another purpose of the Activity of creating menus and being buyers and sellers is to get you thinking about the cost of production per unit for items you order or use almost daily.

(Teachers may wish to collect the menus and order forms to see what students created, ordered, and to check their math!  
The menus may be displayed or shared with other groups.)

Sometimes, students and parents express frustration with the food choices available for purchase at school. If they truly want to create change, they need to gather facts regarding all costs associated with getting what they want. A factual presentation that is cost-effective for the school district will have a better chance of success!

Distribute the **Family Activity Sheet** for Episode 202.  
Encourage students to share their knowledge with families and friends.

Thank them for their attention and participation!

