

Lesson I, Candy Bar Economics

Teacher "This is the way we are kicking off the next 23 days which is everything that you have to possibly need to know about economics you can learn from a candy bar. Everything, or a bottle of water... or gum, [that looks like yogurt but I guess it's gum], granola bars; everything you need to know is encompassed in the packaging on this wrapper. So basically 3, contracts worth of materials boils down to a candy bar."

"Alright so to start with ... You can talk to your group that's fine. By the way you should be working on a sheet that looks like this, not the side of the candy cane side but the side of the candy bar. In your own words, jot down a quick example of what you think economics is. When someone told you, you're taking *Civics and Economics* you thought, 'oh yeah that class is going to be about ...,' write it down. It may not be a complete sentence..."

"I like what everybody brought."

"Talk to your group if you need to."

Student's talking in background

Teacher "So let's get some groups sharing some ideas on what economics is. Any group wants to share? Anybody, any person or any group want to share what they thought when someone said 'you were taking economics, what is this economics class going to be about?' I heard from somewhere. . I'm thinking money. Who said money? How many people had money in their definition? Raise your hands if you have money in your definition.

[Students raise their hands.]

Well, does economics have a lot to do with money? Specifically what would you think it has to do with? Government and money. Transferring money. Government doing what with money? Government spending money. What do we call it when government spends our money? Taxes and expenditures. Alright, what else? Think about money; who prints the money? Government does... like my poster on the wall. Alright what else is economics have something to do with?"

Student "Stock market."

Teacher "Has that been in the news?"

Student "Yes it has."

- Teacher "What other thing has been in the news lately that has to do with home buying?"
- Student "Toys."
- Teacher "Yes toys, [student laughter] we will get to toys in a second. Ed, what about mortgages?"
- Student "They have gone down."
- Teacher "Did everybody here that? Mortgages have they gone down or people are doing what?"
- Student "People are selling their houses."
- Teacher "Does anybody know why?"
- Student "They can sell the houses for a high price."
- Teacher "That's what we want to do, right? Because in our neighborhood, we can sell our houses and make lots of money. But in this case does anybody really know what's going on with this? It's kind of a complicated situation but it has been a top story in the news and it has everything to do with economics. People all over this nation ... are they trying to sell their houses because they are trying to make money or are they trying to sell their house because they cannot afford their house anymore?"
- Student "Can't afford their house anymore."
- Teacher "Exactly, they cannot afford their house anymore. Not that we would ever want that to happen in our country but it could not be happening at a more perfect time because it will actually help you understand how economics works. To know that if you cannot afford your house payment, at some point, what's going to happen to your house?"
- Student "They're going to get evicted and they're going to sell your house."
- Teacher "Alright toys. Right, they're going to get evicted and they're going to sell your house. So, thank you for bringing that up.
- You brought up toys? And that has something to do with this too. What about toys?"
- Student "Oh I don't know. (Laughter) Something about lead in China."

- Teacher “Alright who else wants to add a comment, Kayla?”
- [Student responds.]
- Lead’s been found in toys and who should have been stopping this?
- [Students respond.]
- There’s the abbreviation, the CPSC. Anyone know what that stands for? Don’t look it up. I’m going to give you the first one [word]... Consumer
- [Students try to guess what CPSC is.]
- You got the right idea. It’s the Consumer Product Safety. What’s the C?
- [Student responds.]
- Commission, which means should they be out there making rules?
- [Student responds, “Yes.”]
- That has something to do with economics...why did all these toys get into this country?
- So we’ve now got three stories that you knew about, that have been on the news in the past few months while you’ve been in this class. It has everything to do with economics and that’s what I’m hoping over the next few weeks that you see. ‘Oh yeah, I heard about that on the news; it has a lot to do with economics. I probably won’t hear about the Articles of Confederation being on the news but almost every day there is an economic story.’ I hope that what you take away in the next few weeks is that you understand what that story means.
- Alright, so next question down, next question down. Think about candy bars. Why do we eat candy bars and other foods? Put your answers down... Alright throw out some answers. Ashley, why do we eat candy bars?”
- Student “Cause they’re good.”
- Teacher “What else? Armani, again.”
- Student “Nutrients?”
- Teacher “Nutrients. Xavier, why do we eat them?”
- Student “Energy.”

- Teacher "What else?"
- Student "Satisfy the sweet tooth."
- Teacher "Any other comments why we eat them?"
- Student "To build strong bones."
- Teacher "I don't know what you're all eating but I hope some of the candy bars are chock full of nutrients."

Number three, what type of candy ... if you didn't bring candy, what did you bring? Did you have to borrow something from someone, write down what you've got. What did you bring today?

Question number four... I want you to think about the choice you had to make in getting this item. It may be as simple as, 'I walked into the kitchen and I opened the pantry door and, oh look, there's a candy bar!' Or it could be that at midnight last night you told Mom, 'We've got to go by the grocery store on the way to school tomorrow morning.' Think about the choice you had to make. What choice did you have to make?

[Students respond.]

Well it just didn't fall out of the sky and hit you on the head, so you had to go somewhere to get it.

[Student responds with, 'I found it under my bed.']

Again, that's valid; you found it under your bed. That is all choice. You had to pick it up out from under the bed.

Number 5... think about if your product had not been available, what would you have gotten instead? So your Snickers... or your chewy granola bars... or your Dove chocolate... or Twix... What would you have gotten instead? Give me your top three secondary choices. Think of three other things that you would have substituted. There's the economic word - that you would have substituted for this good.

[Students talking in background.]

Alright next question down, number six, this is kind of a no brainer question but it's a huge economic concept. Are there are more people on this earth that want food than there is a ready supply of food to give them?

[Students respond with, 'yes.']"

Teacher "So that's a no brainer question, yes we all agree to that right? That somewhere, probably maybe even in this school, maybe even in this room there is a hungry person and they may just not have eaten yet. Or it may be that they don't have food to even eat. Does anybody know what this is called?"

[Students respond, 'Poverty.']

It is poverty, but the economic word for it... when something is in short supply, think water is in this right now.

[Students respond, 'Shortage.']

Another S word. It's scarce. Alright I want you to put the word scarcity down. You spell it like scare city. So go ahead and highlight or underline this word because this is going to be a big economic term in here, that there is not enough of whatever it is we want to go around. So, we got to make some choices, just like had you gone to the store and let's say the Snickers, your average size Snickers was totally out. You would have gotten what instead?

[Students respond, 'A Twix.']

And if the Twix had been out, you would have gotten..?

[Students respond, 'another Snickers.']

But if they are already out, what are you going to get? Charlie?

[Student responds with, 'A Kit Kat.']"

Teacher "Alright and we continue with any item in the world. Let's say that water is in short supply because we know that is. What can you do if you can't water your lawn? What options do you have? If you can't, it's going to die..."

[Student responds, 'you could put a fertilizer on it.']

You could do what?

[Student responds, 'Pray for rain.']

You say a prayer for some rain; you could do a rain dance. But again ... is gas in short supply?

[Student responds, 'Yes.']

What alternatives do you have with gas?

[Student responds, 'A hybrid car?']

Think more logically.

[Student responds, 'Walk, ride a bicycle.']

Use an alternative fuel."

Teacher "Let's move on down, number seven. Why do stores sell candy bars? I know they're good, write it down. And I just heard it's in demand. Why do stores sell candy bars? Brittany said and I want her to say it louder so you all hear it. Why do stores sell candy bars?"

Student "Cause they are in demand."

Teacher "Why else do stores sell candy bars? To make what, make what? Make money. What's that called?"

Student "A profit. Profit."

Teacher "Do you think stores have a very complex system in place, that you probably don't even know about, that determines what comes into that store and then where they're going to put it on the shelf, and how many do they need to keep in the back of the store in case they run out? Do you think there's a system in place for that?"

[Students respond, 'Yes.']

Do any of you work in a retail store or know someone who works in a retail store that has to be in charge of part of that system ... they are unpacking boxes or they're ordering new stuff? Alright, Augusta, tell us what? Your friend or you, what do know about that system, what happens?"

Student "I don't really know, they take it out of a box but it had to come from somewhere before it got into a box."

Teacher "Anybody want to comment on that? The question is, 'Is there a system in place and what would that system look like to get products on the shelves for us to buy?'

[Student respond.]

Alright is that a question?

[Student responds, 'Not necessarily.']

Can you tell us what you think that process would look like? It would be like, Kalie, why don't you start? Ed, you can finish it."

Student "I think they have to unload the trucks... there are a bunch of sheets that have the amount of numbers of how many items that you have. Then it has to be divided from earlier profits that you had. So, say they sold a 150 candy bars last month, they usually put out 150 and keep more in the back and if there's a sale... it depends."

Teacher "That sounds like a good plan to me. Ed, you want to add to that?"

Student "No, she took the words out of my mouth. [Laughter]"

Teacher "Alright, since Wal-Mart has literally opened in the last few weeks down here, how many of us have gone to Wal-Mart? Probably multiple times already. Alright, well then the next time you are in Wal-Mart, I want you to look for one of the employees. They're walking around; they have this like little laser gun thing. The next time you see that I want you to keep in mind that Wal-Mart came up with one of the best ideas on how to make sure they have enough stuff on their shelves. We are going to watch some footage of actually how Wal-Mart is Wal-Mart a little bit later on in this class. But, every time they, let's say that they need to replace king-size Snicker bars, they go over and they shoot with the little gun. What are they going to shoot?"

Student "The bar code."

Teacher "And by doing that, it automatically brings up on that little screen how many they have out on the shelf. They also know how many boxes they have in the back. They can even look and see how many cases are going to be delivered on what date of the week. They can do that for every single product in their store."

Teacher "So think about how technology has been used to make sure that our inventory [so that you don't get to the store and time after time after time the product you want is not on the shelf.] Because would you keep going to the store if the products you want were never there?"

[Students respond, 'No way.']

No, you'd go somewhere else.

So let's go to the next one. This is where I need you to examine the package. You need to take a really good close look ... if it got like this Snicker bar here, you need to fold it back down so you can see specifically where it is made and

what's in it. Take about two or three minutes, examine your product and answer this question. Number 8, what was needed to manufacture your candy bar? Think of the things that had to happen - from it was in the ground, some product was in the ground, to sitting with it on my desk now. Take a minute and look at it and then jot down as many things as you can think that had to happen. Take a look and see what ingredients you have, where it was made, if there are products that are not from nature and I'm sure there are some chemicals in there. How does this chemical get in there? Who came up with the chemical formula for that? Is the government involved at all with the packaging of your product? Probably so. Think about how that would happen, just come up with as many things that had to happen.

Even with water, you can even do this with water. Although there is only one ingredient in there, it had to come from somewhere. It had to have a certain kind of package.

[Student asks question.]

Yes ma'am. Well what's the key ingredient in this?

[Student responds.]

Did it have to come from somewhere though? Usually on here it says the source of the water. If it didn't say it on the bottle, it probably said it on the packaging that it came in. But you definitely know it was bottled by Coke Cola. Coke Cola has gone out somewhere and found your water. It also., you know what, it doesn't have just water; it has magnesium sulfate, potassium chloride, which is basically salt. It even tells you it's salt, just in case you didn't know that. Let me ask this, why would the government make you have a label on it? Go back to the FDA. Why would the FDA require a label on that? Anybody over here. Why does the FDA require that? That could be a lot of other liquids right?"

Student "It could be for, in case there's something like chemicals, you're not allowed to have, you're allergic."

Teacher "Right, but can you bring that up in just a minute? That's a great idea, a wonderful idea because I'll bet... look on your 3 Musketeers. Does it say anything like made in a plant where they process, and think about why they put that on there? It's made in a factory.

If you have a peanut allergy and you even got a whiff of that, what would happen to you?"

Student "You would die."

Teacher “Maybe not die. That’s a really good point though. So, we have labeling for what reason?”

[Students respond.]

To make sure everything in there [and if you have an allergy to something], you’re well aware of it. I think that’s a very good point. I want you to bring that up.

Do we have any volunteer who wants to take us through their product? Especially, somebody we haven’t heard from today. Anybody we haven’t heard from who has a particularly interesting product.

[Student responds.]

You’ve got Airheads? Alright take us through the Airheads, take us through Airheads but first of all ... what is ... , did you eat this already?”

Student “Yeah. [Laughter]”

Teacher “So he has a cherry Airhead that says, ‘out of control’. Alright take us through what has to happen with Airheads, please listen as he takes you through, see how many things are similar to your product. Take it away Xavier.”

Student “Alright, there’s some sugar, there’s some corn syrup, get some multi-dextrium, some dextrose, modify some fruit starch, hydrogenate some soybean oil, get some citrus acid, get some water and some artificial flavor, add some red 40, mix it all together, cut it into a nice little rectangular piece, wrap it, put it into a truck, into a box, ship it to the store, put it on the shelf and sell it to me.
[Students laugh.]”

Teacher “Very nice.

How many people had something similar to this process? With mixing a lot of what together?

[Students respond, ‘Ingredients.’]

Are some from nature? What were from nature... or minimally processed from nature on that list?

[Laughter. Students respond.]

No. Xavier, what was the first thing you mentioned?”

Student “The sugar, the corn syrup, the multi-dextrium and the dextrose.”

Teacher "What do you think? Of those, what of those came from nature?"

[Students respond.]

Sugar and corn syrup comes from what?

[Students respond.]

Comes from corn and sugar cane, but what about red dye number 40, and hang on, citric acid and water's natural, do you think water is part of all of your production?

[Students respond, 'Yes.']

Whether you're making flip-flops or candy bars, water is involved. So what about all of these, what about all of these chemicals? Those are obviously not from nature but are they important to the process. Yes. What chemicals, what are those chemicals doing. What are those chemicals doing? Xavier, what do you think some of those are doing in your Airhead?"

Student "There're keeping them fresh."

Teacher "And what else? Keeping them fresh, preserving them what else, adding color because if that was like gray would he eat a gray food? No. No. (Laughter)

Let's get another product. Let's get something that's not candy. Could we do water? Or could we do, I want to do water because, believe it or not, water... or do you want to do that? What is that?"

Student "It's a bottle house farm drink. It's like organic."

Teacher "Alright so tell us what your product is and then walk us through that."

Student "The bottle has farm mango lemonade and comes in 18 different flavors. So this is what happened, this guy got some water and filtered it, he got some lemons and some mango, and he put it in a blender, he got some lemon juice and some more mango puree, he got some cane and he put it in the juice blender, evaporated cane juice. Then he put a speck of natural flavor and that's how he made it."

Teacher "He's really tired if he's doing each one by hand. Is he doing each one by hand?"

Student "Yes. These farm people have, since 1915, and then they ship it off to our grocery stores so we have a healthier selection of soda."

Teacher “Are you selling this stuff?”

[Students laugh.]

It’s good for your heart.

I’m glad that you walked us through this and you actually used some interesting words for us. One you kept referring to it that it was one person. Even though it’s a farm, do you think that there is one person working on the farm? This would be a really, really tired person. Do you think that farm might be owned by like a family, that they have lots of employees?

[Students respond, ‘Yeah.’]

I also like the fact that she brought up that the appeal of this is, that it is healthier than what?

[Student responds, ‘Soda.’]

Than soda...that is kind of a trend in drinks. I’m looking at vitamin water... an energy drink back here...he flavored water... are all of these alternatives to sugary soda?

[Students respond, ‘Yes.’]

Alright so my next question is how many people do you think were involved in the making of your product? Give a rough estimate of how many people you think helps make your product. Bianca or Cotton, I think yours is one. Cotton’s got one, can you beat one? You’ve got one person, they are really tired.”

Students talking in background.

Teacher “Alright by a show of hands, ...there’s kind of a general roar in here so let’s cut some of the talking cause it’s really getting kind of loud, thank you. How many people think that less than ten people were involved in their products? Put your hand up. Cotton’s a really tired person; he’s been making this all-natural, organic sliming aide. How many think its, between 10 and maybe 50 people were involved in your product?”

[Students respond.]

How about 50 to 100? 50 to 100? [Students respond.]”

Teacher “But again think what Xavier and Cotton have both told you about all the steps in production. How about more than 100, between 100 and 500? More than 500? Does anybody think it’s more than 500?”

[Students respond.]

So, is there really anyway to know? No. Because as we’ve heard, production of a product requires people to manufacture or harvest the raw goods, chemists to come up with the special flavoring and red dye # 40 - we don’t want to eat gray candy.

It requires people at the factory to put it all together. The people in the factory, do they all do the same job?

[Students respond, ‘No.’]

Well then a candy factory there could be maybe 50 or 60 maybe even 100 different jobs and that’s one of the things that we’re going to talk about in here is why do..., well let me ask you this, ‘Why in a candy factory would they have different jobs? And I’m going back to why Cotton had one guy. Alright, Chad why?’

[Student responds.]

That brings up another point...a long time ago in 1915 there probably was one guy sitting on his porch dumping all this stuff in a gigantic tub but is it profitable for a company to have just one guy making it?

[Students respond, ‘No.’]

That brings in the whole assembly line idea.”

Student “I think we have more people in the factory to do it because they can make more products to sell more things and make more money.”

Teacher “So... the more I can make, the more efficiently I can make it, the more money I have at the end of the day. Can you sometimes charge more for a product when you say that it is hand-made?”

[Students respond, ‘Yes.’]

Or it’s organic ... well yes and there is the organic label.

Teacher So the last thing I want us to look at is what do you think or why do you think, nutritional packaging is required on a product? Think about that, think about regulatory commission. Alright, Sammy why?”

- Student "Because people want to know what they are eating."
- Teacher "...and something else, Amanda?"
- Student "In case it might contain peanuts and you have an allergy."
- Teacher "Allergies, that's a very valid point. Why do you think the federal government requires them to put this product may contain eggs, soy, nuts because, you just said it, in case you have an allergy to it."
- Student "They don't want you to sue them."
- Teacher "Exactly. And then later on we really don't want the company to get sued for saying 'hey, we put stuff in our product on top of that.' Ed has there been times in this country that it didn't know what was in your product?"
- Student "Yes."
- Teacher "And do you think people got sick? Yes, that's how we got back into the whole lead paint recall.

Do you think as we are entering the holiday season that consumers want to know if lead is in their child's toy? Is it going to come out and say this product contains lead? No, but what has become a kind of signal that you might not want to buy this product, made in where... China. The problem ... 80% of toys are made in China, so that doesn't give the consumer a lot of options.

So now, all the way down to the last one, number 10. I want you to. . Just put out in the margin some of the economic concepts that you are going to be learning about. I said everything that you are going to need to learn from economics; you've actually just talked about it using a candy bar.

So going back up to number 2, just put it out in the margin if you got a pen or a pencil, you can just put it out there and then highlight it or circle it. Alright the idea that we eat candy bars and other food is to fulfill our needs and wants so that would be needs and wants. That's an economic concept and we're going to be talking about that a little further in a few minutes. Needs and wants was number 2, the most basic thing that everyone needs, and the things that we really want.

Skipping on down to number 4, you had to make a choice, correct? Alright were there things that you gave up to get what you want?

[Students respond, 'Yes.']

You couldn't buy the whole store and bring it with you. This is something

called opportunity cost or trade off. It's got 2 different names, opportunity costs or tradeoffs. If this unit had a theme song, that's what it would be - opportunity costs and tradeoffs. I don't know but maybe you could come up with a tap dance for us...theme song for us...I'm sure it would be wonderful.

Alright for number five, you have to pick an object and leave the other ones there or if your object wasn't there, you had to pick something else. That is called a substitute or a complimentary good - picking one thing over another or maybe you picked something because something else goes with it. I think that really applies in here today but if I had said 'bring a peanut butter sandwich, how many of you would have had jelly on it too?' Probably everybody. Number 6, what was that concept again? Concept of scarcity.

The next one number 7, profit motive ... why businesses are in business, yeah it would be nice to think they're in business cause they want to do good and they might do that by donating part of their proceeds, but they're really in business to make a profit. And if they can't make a profit, they probably will not stay in business.

Number 8, is something called the four factors of production. It also is going to have something to do with the Circular Flow Economic Model. Both of those have a lot to do with how we get products from the ground to market.

Alright for number 9, we have Specialization of Labor and assembly line. Both of those are yes, we just said Henry Ford ... we thank you, we thank Henry Ford for coming up with those lovely concept of the assembly lines now used at your local McDonald's to produce hamburgers.

So for number 10, go back and evaluate if your definition in the first question which is, 'What is Economics?' Has it changed? If it has changed, oh please don't just cop out with, 'no it hasn't changed.'

After talking a little bit about how a candy bar can have everything to do with economics, how has your definition changed? You can even tie in some key words here that we just circled. Alright has anybody's changed? Anybody want to share it? Anybody wants to share how their definition has changed. Has anybody's definition changed? Does everybody have the same definition from before? Alright Nancy has yours changed?"

Student "It just doesn't include money, it often includes production."

Teacher "And you also have the word tradeoff and opportunity costs. Very nice. Anybody else? Has yours changed at all? Yes, money has something to do with it. But it is not the only thing that we are going to do in Economics. So if you feel the need to eat your candy, go ahead, honey wrap, it make sure the trash doesn't go on the floor."

