Supply and Demand

Lesson Description:
In this lesson, students learn about supply and demand and how they affect a business owner's decisions. They then apply these ideas to situations that they might encounter in their own lives, and discuss how those situations require good financial decision-making skills.

Suggested Grade Level:

2nd – 3rd

Economic Concepts:

Price
Supply
Demand

Voluntary National Content Standards in Economics:

Content Standard 1: Scarcity
Students will understand that productive resources are limited. Therefore, people cannot have all the goods and services they want; as a result, they must choose some things and give up others.

Content Standard 2: Decision Making
Effective decision making requires comparing the additional costs of alternatives with the additional benefits. Many choices involve doing a little more or a little less of something: few choices are "all or nothing" decisions.

Content Standard 7: Markets and Prices
A market exists when buyers and sellers interact. This interaction determines market prices and thereby allocates scarce goods and services.

Content Standard 8: Role of Prices
Prices send signals and provide incentives to buyers and sellers. When supply or demand changes, market prices adjust, affecting incentives.

Content Standard 9: Competition and Market Structure
Competition among sellers usually lowers costs and prices, and encourages producers to produce what consumers are willing and able to buy. Competition among buyers increases prices and allocates goods and services to those people who are willing and able to pay the most for them.

National Standards for Financial Literacy:

Standard II: Buying Goods and Services
People cannot buy or make all the goods and services they want; as a result, people choose to buy some goods and services and not buy others. People can improve their economic well-being by making informed spending decisions, which entails collecting information, planning, and budgeting.

Jump Start National Standards in K-12 Personal Finance Education

Financial Decision Making:
-Standard 1: Recognize the responsibilities associated with personal financial decisions.
-Standard 4: Make criterion-based financial decisions by systematically considering alternatives and consequences.

Time Suggested:

45-60 minutes (if completed in a single teaching period)

Supplies:

- *Scarcity Cat Learns to Price Just Right* video, and means to project it
- Up or Down PowerPoint presentation, and means to project it
- Paper or sticky notes for assessment, and writing utensils

<u>Classroom Procedures</u>:

1. Begin the lesson by showing students the *Scarcity Cat Learns to Price Just Right* video in its entirety. Even if students have watched it previously, it will help for them to see the whole thing again, as this lesson focuses on supply and demand, which are usually unfamiliar concepts to students at this age.
2. If needed, stop the video and review the meaning of supply and demand. Students will know these words from everyday life, but may need help clarifying their economic definitions:
    a. Supply, in the context of the video, refers to the amount of cheese available for customers to purchase.
    b. Demand, again in context, refers to the skunks' desire to own the cheese, assuming that they can pay for it. (Note: the video does not show the skunks paying for the cheese they eat, but for the purposes of the lesson, have students assume that they paid eventually.)
3. Following the video, ask students to think through the supply and demand situations that Scarcity Cat encountered when she priced the Limburger cheese differently:
    a. In the first scenario (beginning at 2:45), Scarcity Cat priced her cheese very inexpensively at one penny per pound. Ask students to think about what this low price meant for the skunks' demand for the cheese versus the supply that Scarcity Cat has available: "what happened to the skunks' demand for the cheese when they saw how inexpensive it was to buy?" **(In this case, there is not enough cheese supply for all of the skunks who would like to buy some, since the low price means they can buy as much as they want at any time.)**
    b. In the second scenario (beginning at 4:06), Scarcity Cat takes the very opposite approach and places a high price on her cheese - of one million dollars per pound. Ask students, "what happened to the skunks' demand for the cheese when they saw how expensive it was?" **(They bought no Limburger cheese, and left the store without buying anything at all. There is plenty of cheese supply, but no customers willing to buy it at that price, which means there is no demand.)** Although Megan and Scarcity Cat do not discuss the supply and demand issues associated with this pricing decision, students may be able to determine what they would be. Ask, "what does this price mean for the cheese supply?" **(There will be plenty of cheese available for sale, since there are no customers to buy any of it. There will be a high level of supply of the cheese, but zero demand from the skunks.)**
    c. In the final scenario (beginning at 4:59), Scarcity Cat moderates her pricing strategy and finds a price that works for her customers but also allows her to cover the costs of running her store. Ask students, "what happened to the skunks' demand for the cheese when it was priced at seven dollars per pound?" **(They still wanted to buy the cheese, but they were more reasonable with how much they bought. Every skunk who wanted cheese bought some.)** Follow up by asking, "what did this mean for the supply of cheese?" **(There was enough**

cheese supply to meet the demand of all the skunks who came to the store. There also seemed to be some left for future customers.)

4. Explain to students that managing supply and customer demand is one of the biggest decisions that store owners have to make. There is no guaranteed way to balance the two, and larger companies have entire groups of employees who do this. For math-focused students, this is an interesting career field to consider. For the purposes of this lesson, it is enough for students to know that this balance is one factor that entrepreneurs consider when opening and running a business. The following background is useful to keep in mind as you continue the lesson:
    a. If stores have too much supply, then they are not very profitable. If they have too little supply, customers can become frustrated and decide to shop elsewhere, which also negatively affects the store's profits.
    b. In addition, if a store has too much supply, then the owner may see that as a sign of low customer demand. If a store cannot keep an item in supply, it may be a sign that a low price has led to too much customer demand.
5. Using the Up or Down PowerPoint presentation, engage the class in a physical barometer activity that helps students think about the relationship between supply and demand, and how it affects them as consumers. For this activity, students will read scenarios and answer the same two questions: what happens to supply? What happens to demand? In order to answer the questions, they will wait on the teacher's signal. At that time, they will stand up to show that supply or demand has increased, or crouch down beside their desks to show that it has decreased. Have students practice both movements before reading the first slide.
    a. Show the class Slide 2 of the presentation, which asks students to think about a scenario where limited-edition sneakers are put on sale. After reading and discussing the scenario, ask students, "what happened to supply?" At your signal, they should crouch down if it decreased or stand if it increased. **(Supply decreased, because the number of shoes available for sale was limited on purpose. Additionally, people buy the shoes as soon as they are available, leaving few if any for customers to buy later.)** Continue by asking, "what happened to demand?" **(Demand increased, because some customers were more interested in buying the special edition shoes than in the "normal" versions.)**
    b. Continue with Slide 3, asking the same questions. In this case, **supply increased because no one wanted to buy a fidget spinner, which is another way of saying that demand decreased.**
    c. Next, discuss Slide 4, again asking the same questions. **Supply decreased, in this case, as demand increased. More people bought toilet paper, and stores could not meet the increased demand.**
    d. Continue with Slide 5, which gives a slightly different scenario. **Demand for airline flights increases during school holidays, and decreases when students return to the classroom. Airlines adjust the supply of flights accordingly, so**

the supply increases during school holidays and decreases when school starts again and demand falls.

e. Finally, discuss Slide 6. **Pumpkin supply increases in fall, since that is the time that pumpkins are harvested and sold. Demand for pumpkins increases during the fall, and decreases very quickly after Thanksgiving, as people are no longer interested in fall decorations.**
f. After completing all five scenarios, ask students to share what they think these differences in supply and demand can mean for businesses. "How does it affect a business when demand increases or decreases?" **(They may need more or less of a product, but if they have already bought a lot of that product, they have to find a way to sell it. If they need more of that product than they have, then they have to find a way to increase their supply quickly.)**

Closing:

Now that students have worked a bit with the concepts of supply and demand, revisit the scenario mentioned at the end of the *Scarcity Cat* video. A new skunk comes into the store and asks Scarcity Cat if she would be able to stock Roquefort cheese. Scarcity Cat is excited to order a new cheese from France, and also thinks of other imported foods she could add to the store. Have students re-watch the final minute of the video, starting at 6:18.

Ask students to share whether or not they think Scarcity Cat will be able to sell these new items. "Should Scarcity Cat start to sell Roquefort cheese? Why or why not?" **(Some students may think that since a customer has requested it, there will be enough demand for the cheese to make it profitable for the store. Other students may think that the cost of importing the cheese may be too great of a risk since Scarcity Cat cannot be sure that there is enough demand for the cheese to make it profitable. Since it will not be easy to resupply the cheese, as it is an import, Scarcity Cat needs to consider carefully whether or not she can balance a supply of a new cheese without knowing the exact demand that will exist for it.)**

Assessment:

Ask students to complete a 3-2-1 response based on their new learning about supply and demand. Ask them to list:

- 3 new terms they learned during the lesson (or that they understand better now)
- 2 new facts they learned during the lesson
- 1 question they still have

This can be done on notebook paper, sticky notes, or scratch paper. If time permits, have students turn and share with a partner. Circulate as students share. If time is short, collect the responses and read over them to see where students' learning gaps may be, and how best to proceed with subsequent lessons.

Extension:

-If students have not already learned about the cheeses mentioned in the video, they can learn about them here:

- Limburger: https://www.nbc15.com/content/news/The-legend-of-Limburger-known-as-the-worlds-stinkiest-cheese-510327271.html
- Roquefort: https://www.youtube.com/watch?v=4t2DAedQrnw