

App Developer: Supply and Demand

Adventure Description:

In this adventure, students will think like an app developer and create a game for kids to learn about supply and demand.

Activity Note: This activity can be completed across multiple days

Step 1: Building Background Knowledge on Supply and Demand (10 minutes)

- Watch [Video: Supply and Demand](#).
- Explain to students that today they will be app developers and work with a team to create a new app.
- They will create an app that focuses on a certain topic, like animals or space. Explain to students that at different points, an app may be in low or high demand, depending on the supply. They will then get to decide how they should price their apps based on supply and demand.
- Explain to students that supply and demand refers to products being purchased for a price.
- Give each student [Handout: Understanding Supply and Demand](#).
- The supply means how much of something there is to sell. The demand is how many people want to buy the item.
- If there is a low supply of apples at the store but a high demand, the apples can be sold for more money.
- If there is a high supply of apples and a low demand, the apples might go on sale so that more can be sold.

Step 2: Designing an App (10 minutes)

- Explain to students that they will work in small groups to design and develop a new app.
- Put students into six even groups. Give each group [Handout: App Design](#).
- Have groups decide on a topic for their app by circling their choice under step 1.
 - Teacher note: Try to have at least 1 group in your class have 1 of the 4 topics so that all 4 topics are represented.
- Have groups decide on a format for their app by circling their choice under step 2.
- Explain to the groups that they will now discuss and agree upon a name for the app and write it under Step 3.
- Give each student [Handout: Create a Character](#). Explain to students that each group member will get to create a character that kids can pick when they open the app.
- Give students a few minutes to name and draw their character.

Please contact Allison Bischoff, Director of Customer Service, at allison@rozzylearningcompany.com or 314-272-2560 with questions.

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Step 3: App Store Poster (10 minutes)

- Give each team a large poster to create an advertisement for the app.
- Have each poster largely labeled 1-6.
- Have students draw a large box in the middle of the poster where they will draw an icon for the app.
- Students can also cut out their characters from step 2 and attach them to the poster.
- Explain to students that the poster should include the name of the app, the app's icon, the app's characters, and the starting price of the app (\$1 per app) on the poster. Have groups display the posters around the room to create an in-person "app store."
 - Have students leave room under their pricing so that they can change the pricing based on supply and demand.

Step 5: Supply and Demand Game (10 minutes)

- Explain to students that you will now play a game to learn about how the prices of their apps can change depending on supply and demand.
- Have the app posters with their download buttons set up in front of the class in numbered order, 1-6.
- Give each student Handout: Rozzy Dollars and have them cut out their dollar bills.
- Explain to students that you will tell students the supply and demand of apps of certain topics. After you announce the supply and demand, students must change the pricing of their app based on your announcement.
 - Teacher tip: Write your announcement on the board for students to read.
- Once students change their pricing, give students 1 minute to decide which games they want to purchase after the pricing change.
- There will be 3 rounds of announcements. After 3 rounds, make a chart on the board of which games made the most money.
- Have a class discussion about how supply and demand affects which games are the most purchased.
- Before beginning the rounds, have a practice round.
 - Announce that games that have to do with animals are in low supply and low demand.
 - Ask students how they would change their pricing and why.
 - Students could say they will keep their pricing the same because not many people want it, but the supply is low. Or students could say they are going to lower their price because it is low demand.
- Round 1 announcement: All games are in high demand and low supply.
 - All students should raise prices.
- Round 2 announcement: Games that have candy are in high supply and low demand. While games with robots, are in low supply and high demand. All other games are in high demand and high supply.
 - Candy games should lower price and robot games should raise prices. All other games should keep prices the same or increase prices.
- Round 3 announcement: Games that have outer space and animals are in low demand and high supply. All other games are in high demand and low supply.
 - Students with outer space and animal games should lower prices. All other games should raise prices.

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Materials List

Provided online:

- Video: Supply and Demand
- Handout: Understanding Supply and Demand
- Handout: App Design
- Handout: Create a Character
- Handout: Rozzy Money

Not Provided online (each student or group needs):

- Markers, crayons, colored pencils
- Poster or large sheet of paper

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