
Behind the Money || Oh the Production Possibilities!

Goals & Objectives

- Students will be able to read graphs displaying production possibilities.
- Students will be able to identify, by labeling, important terms on a production possibility curve.
- Students will be able to plot their own production possibility graph.

California State Content Standards

- 12.2.4 Explain how prices reflect the relative scarcity of goods and services and perform the allocative function in a market economy.
- 12.2.5 Understand the process by which competition among buyers and sellers determines a market price.
- 12.2.8 Explain the role of profit as the incentive to entrepreneurs in a market economy.

Common Core Literacy Standards

[CCSS.ELA-Literacy.RH.11-12.7](#)

Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.

[CCSS.ELA-Literacy.W.11-12.2.a](#)

Introduce a topic; organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.

[CCSS.ELA-Literacy.SL.11-12.1](#)

Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11-12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

Driving Historical Question

How do production factors influence a business?

Lesson Introduction ||

Students will walk into the classroom and see four different pictures accompanied by words that describe each. These will be posted on the front board. Picture 1 will have an image of land with the caption "land," picture 2 will be a picture of a person working and labeled "labor," and picture 3 will be an image of a person thinking (thought bubble with light bulb) and labeled "intelligence/human capital." The final image will have a picture of a computer and machine and will be labeled, "resources/capital." After the students walk in, the teacher will ask them to consider businesses (in general) and pick on category they think is the most important in running a company successfully. Students will place a tally mark by the item they think is the most important, and then conduct a Quick Write explaining their choice. The teacher will make special mention of the tally totals, and the students will have an opportunity to share their thoughts with the entire class.

Vocabulary (Content Language Development) I

Students will be introduced to vocabulary prior to actual content delivery. The teacher will define a second time prior to the reading. S/he will also define as the read is in progress. Students will be required to academically use these terms as they both read and write.

- Factors of Production
- Human Capital
- Capital
- Land
- Labor
- Underutilization
- Efficiency
- Future

Content Delivery (Method) I

After the anticipatory activity, students will be directed to look at the objectives and vocabulary listed on the board. The teacher will explain the objectives while connecting it to the anticipatory activity and will read them aloud. While reading, and explaining the vocabulary, the teacher will move the representative images under the appropriate vocabulary word. Students will write down the objectives and vocabulary in their notebooks.

The teacher will then explain the 4 categories that are considered factors of production. S/he will do this with the aid of a PowerPoint. The PowerPoint will have corresponding graphs and images. This PowerPoint will be succinct and allow the students to use abbreviated guided notes. To check for understanding, the teacher will provide another Quick Write, and will walk around to assess understanding. Their answers will be contributed as a group discussion.

To further convey the point the teacher will walk students through a production possibility curve after which students will conduct their own possibilities curve using items of their choice.

The content instruction provided in the PowerPoint is followed by a slide that contains instruction on a simulation. The simulation will make the students either a “business owner” or “provider.” The “business owners” are given a card with information including an allocated amount of money, type of business, business stats, and a scenario regarding the 3 of the 4 factors of production. The “providers” have information on land, labor, or resource capital. The “providers” will also have various prices listed on a sheet that explain what to sell (or take away from each business). Before the simulation starts “business owners” must map out their graphs given their specific scenario, and decide what they need to purchase and from who in order to shift their production possibility curve to the right in order to increase production. The “providers,” will have a set list of prices and their own scenario that they will provide to the “business owners.” Although the “business owners” will purchase these goods, some “providers” will take the money and then say that negative things occurred and the owners lost a different factor of production. Other “providers” will provide positive information.

After, students will return to their desks and create a graph that represents the appropriate shift in their curve. This activity will be followed by a Think.Pair.Share. In which the students present their scenarios and results. They will also provide an explanation as to why this occurred.

Student Engagement (Critical Thinking & Student Activities) |

Students will begin the day by viewing the four factors of production that will be presented on the front board. The students will consider each and decide which is most important in running a business. Once they have decided, students will make a tally mark under the one they think is the most important. They will then conduct a Quick Write that explains which one they chose and why they chose it. Their thoughts will be discussed peer to peer and then as a class.

Students will then write down the objectives and vocabulary that are listed on the front board then listen to a brief PowerPoint. To solidify the new concepts, students will view, and then conduct a production possibility curve. The teacher will then check for understanding by having the students conduct another Quick Write. Their thoughts will be discussed as a class and they will be asked hypothetical questions that will access higher order thinking skills.

The students will then have the opportunity to practice the newly learned content through a simulation. The simulation will place them as either a “business owner” or a “provider.” The “business owner” will read a scenario, decide what factor of production they need to shift their production possibility curve to the right, and try to obtain the appropriate factor from the “provider.” The “provider” will have their own scenario that alters the “business owner’s” chances of success. Once the exchanges are completed, the students will go back to their seats and graph their curves. The students will then conduct a Think.Pair.Share with their neighbors, and share their findings with the class. The students will finish the activity with a Q and A that involves higher order thinking questions. These questions will be pre-selected by the teacher.

Lesson Closure |

The teacher will redirect students to the front board. There will be a graph drawn on the board, which will include a production possibility curve. In the teacher’s hand will be a Nerf gun. The teacher will have practiced for hours on end and have become very skilled at the art of using said Nerf gun. The teacher will then ask the student questions. These questions include, “What area represents underutilization; efficiency; or future. Explain an event using one of the four factors that would cause the shift. Why is this important.” With each answer (whole class) the teacher will shoot at the appropriate area. Next the students will be given scenarios that will create a shift in the curve. Students will be prompted to call out their the direction the curve will shift based on the scenario and the teacher, (with deadly accuracy) will hit the appropriate area of the graph. Finally, the objectives will be reviewed.

Assessments (Formative & Summative)

This lesson is in the middle of the unit and will utilize formative assessments. The anticipatory activity allows students to get involved with the material and will show the teacher how much students know about outside factors that affect businesses. It will also help the teacher decide how much emphasis s/he needs to put on the basics of businesses.

The Think.Pair.Shares, Quick Writes, and group discussions will likewise inform the teacher as to how well the students understand the material. As students conduct the paired and independent work, the teacher will burn carpet to assess their understanding. If all students are struggling with a concept the teacher can focus on that material. If only a few students need help, they will receive independent instruction during these activities.

Finally, the teacher will collect the simulation paperwork. Because students will already have examples from notes and classwork, the teacher can formally assess their simulation graphing and provide feedback on a later date. Because math can be intimidating,

this last assessment is necessary. This will allow the teacher to see if many are struggling, or just a few and adjust future lessons accordingly.

Accommodations for English Learners, Striving Readers and Students with Special Needs

The anticipatory activity creates an opportunity for English learners and striving readers to be exposed to the lesson through pictures that contain both content and vocabulary. Instead of launching into a conversation that explains each factor of production, all students are gradually exposed to the material. The anticipatory activity not only allows students to get “warmed up” for the lesson, but also allows students an opportunity to view the vocabulary in a visual way.

The teacher also lists the objectives and vocabulary on the front of the board. The objectives, vocabulary, and definitions are read allowed to help students who have other needs (vision issues for example), ELs and striving readers. These items also remain on the board throughout the duration of the lesson so students who need extra time to write have the opportunity. In this lesson, the images from the anticipatory activity will be placed by the appropriate vocabulary word so students can view the visual representation of the vocabulary throughout the duration of the class.

The PowerPoint presentation assists ELs and students of other needs in a few ways. It allows students to take abbreviated notes, listen to the instruction, and see visual representation of the material. This means that if a student has a weakness in one learning style, are able to receive the material in multiple ways. The following I Do, You Do activity and Quick Write will help students with other needs and students who struggle to practice the content in a variety of ways, once again presenting information to several learning types.

The simulation provides accommodations for ELs and other needs students because it provides an opportunity to work with the material. In this activity, students can get up and interact with another individual. They also interact with the material. Because the activity involves numbers, and is written simply (but inclusive of academic vocabulary) students with language barriers, or other needs are presented the material in another format.

As can be seen, this lesson uses differentiated teaching. It utilizes written work through Quick Writes, verbal and visual instruction, physical interaction, and mathematical analysis. This allows all students, as well as ELs and other needs students, an opportunity to grasp the material.

Resources (Books, Websites, Handouts, Materials)

- White Board
- Dry Erase Marker
- PowerPoint: “Oh the Production Possibilities”
- Graphing Worksheets
- Guided Notes
- “Provider and Business Owner” Sheets