



A Pixar Is Worth a Thousand Words

Pixar Animation Studios has produced many beloved films with economic content that are remembered fondly by most K-12 students. We hope that instructors in the K-12 space will choose to implement some of these lessons to add additional relevance to their courses. The nine lesson plans are from the following Pixar films: *A Bug's Life*; *For the Birds*; *Incredibles 2*; *Inside Out*; *Monsters, Inc.*; *One Man Band*; *Toy Story 3*; *UP*; and *WALL-E*. The lessons are on topics as varied as externalities, labor markets, specialization, time preferences, production possibilities curves, subjective value, and monopsony.

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1. Introduction

The turn of the century has seen emerging literature on ways to teach economics using media as a complement to the traditional lecture. Media approaches include using literature (Watts, 2003); art (Watts & Christopher, 2012); photoblogs (Acchiardo et al., 2017); music (Mateer & Rice, 2007; Hall, Lawson, & Mateer, 2008); podcasts (Moryl, 2013); popular television shows such as *Seinfeld* (Ghent, Grant, & Lesica, 2011), *The Simpsons* (Hall, 2014), *The Office* (Kuester, Mateer, & Youderian, 2014), and *The Big Bang Theory* (Tierney et al., 2016); and film (Leet & Houser, 2003; Mateer, 2005; Sexton, 2006; Mateer & Li, 2008; Mateer & Stevenson, 2011, 2015). Aggregated collections of a wide variety of media are also available from Mateer (2012) and Wooten (2018).

Work by Carrasco-Gallego (2017) and Morreale and Staley (2016) finds that millennials have a different skill set than previous cohorts. Picault (2019) notes that new teaching methods that include popular culture and media to improve engagement among millennials serve as a transversal between engagement and content acquisition.

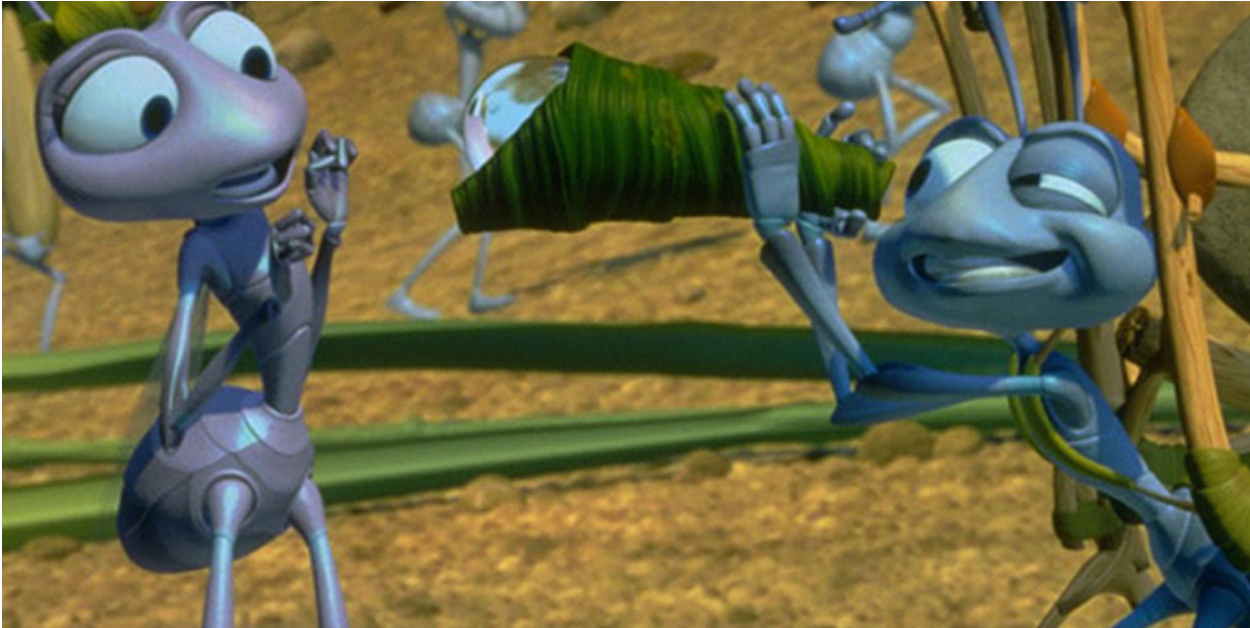
Continuing in the vein of those who have tapped into using films to teach economics, we showcase clips from Pixar Animation Studios. Pixar has produced many beloved films with economic content that are remembered fondly by most K-12 students. We hope that instructors in the K-12 space will choose to implement some of these examples to add additional relevance to their courses. We utilize clips from nine Pixar films (*A Bug's Life*; *For the Birds*; *Incredibles 2*; *Inside Out*; *Monsters, Inc.*; *One Man Band*; *Toy Story 3*; *UP*; and *WALL-E*) on topics as varied as externalities, labor markets, specialization, time preferences, production possibilities curves, subjective value, and monopsony.

To aid the economic education community, we have organized the material into lessons. Each lesson plan contains the following elements: a clip description, an interesting photo, a photo caption, the appropriate unit to introduce the clip, the relevant standards, key terms and concepts, information to convey before showing the clip, a link to the clip, information to convey after showing the clip, and possible extension lessons from econedlink.org. The lesson clips follow in alphabetical order. Each lesson plan is designed to help learners unpack the information from the clip, which reduces the cognitive load (Sweller, 1988) and makes learning stickier.

2. A Bug's Life

A. Clip Description: In this scene from the beginning of the movie the audience meets a community of ants hard at work gathering food. Each ant plays his or her part to gather food. When the grasshoppers (their enemy) approach, all the ants drop off their food at "the offering stone" and hide in their anthill. The ants use a traditional production assembly line method which is labor-intensive but are reluctant to switch to a new invention that would make gathering the food less time-consuming.

B. Photo:



C. Caption: Flik's inventive ideas are not welcome.

D. Unit: Microeconomics or Macroeconomics

E. Standards:

1. CEE National Voluntary National Standards in Economics
 - Standard 5: Trade
 - Standard 6: Specialization
2. C3 Social Studies State Standards in Economics (<http://www.socialstudies.org/system/files/c3/C3-Framework-for-Social-Studies.pdf>)
 - National Economy
 - D2.Eco.13.K-2. Describe examples of capital goods and human capital.
 - D2.Eco.13.3-5. Describe ways people can increase productivity by using improved capital goods and improving their human capital.
 - D2.Eco.13.9-12. Explain why advancements in technology and investments in capital goods and human capital increase economic growth and standards of living.
 - Exchange and Markets
 - D2.Eco.3.K-2. Describe the skills and knowledge required to produce certain goods and services.
 - D2.Eco.4.K-2. Describe the goods and services that people in the local

community produce and those that are produced in other communities.

- D2.Eco.3.3-5. Identify examples of the variety of resources (human capital, physical capital, and natural resources) that are used to produce goods and services.
- D2.Eco.4.3-5. Explain why individuals and businesses specialize and trade.

F. Key Terms/Concepts: efficiency, specialization, division of labor, trade, productivity

G. Before Showing The Clip:

As a warm-up or bellwork activity ask students:

1. Can you think of a time that you found a better way to do something? A way that saved time or effort? Explain.

Discuss students' responses to the prompt and, if necessary, introduce them to the term productivity. Show students the film clip and ask them to consider the following:

1. How would you describe the productivity of the ants?
2. How can they meet the demands of the grasshoppers?

H. Clip: <https://www.youtube.com/watch?v=3XkvOOm5Jzoff> (Opening Scene) and <https://www.youtube.com/watch?v=Ww3Tekxwp4w> (Economic Commentary, especially from 1:12-2:10 in the clip)

I. After Showing The Clip:

Discuss students' responses to the prompt. Students should recognize that the ants already employ a number of strategies to increase productivity, but that they'll need to be even more productive if they hope to escape the wrath of the grasshoppers. Transition into a lesson on one or more of the concepts listed above. Some potential learning objectives are listed below.

Students will be able to:

1. Explain the importance of labor productivity.
2. Identify strategies to increase labor productivity.

J. Possible Extension Lessons From econedlink.org:

[Dog Gone Job!](#) (K-2)

[Lean on Me - We Depend on Each Other](#) (K-5)

[Widget Production: Producing More, Using Less](#) (3-8)

[Henry Ford & the Model T](#) (6-12)

3. For the Birds

A. Clip Description: The clip begins with a number of nearly identical small birds fighting over space on a telephone wire. Soon the birds notice a much larger, exotic bird nearby waving hello. The group of birds proceeds to make fun of the exotic bird's appearance. When the exotic bird tries to communicate, the group of small birds ignore him and move further down the telephone wire to chirp amongst themselves. The exotic bird decides to join the others on the middle of the wire, but his weight pulls the wire down so all the birds fall to the wire's low point where they are uncomfortably crammed against one another. The small birds begin attacking the exotic bird's feet to get him to move. Just as the exotic bird is about to fall off the wire, one small bird realizes they'll all be launched into the air when the wire snaps back, but it's too late.

B. Photo:



C. Caption: How many birds on a wire is too many?

D. Unit: Microeconomics

E. Standards:

1. CEE National Voluntary National Standards in Economics
2. Standard 16: Role of Government & Market Failure
3. C3 Social Studies State Standards in Economics (<http://www.socialstudies.org/system/files/c3/C3-Framework-for-Social-Studies.pdf>)
4. Exchange and Markets
5. D2.Eco.8.3-5. Identify examples of external benefits and costs.

F. Key Terms/Concepts: externalities, role of government, taxes, subsidies, tragedy of the commons

G. Before Showing The Clip:

As a warm-up or bellwork activity ask students:

1. What are the costs and benefits involved in deciding to drive a car? Who gets the benefits and who bears the costs?
2. What are the costs and benefits involved in deciding to offer public education? Who gets the benefits and who bears the costs?

Discuss students' responses to the prompts. If students did not identify any spillover costs and benefits, prompt them to consider additional possibilities. Explain that the production and consumption of some goods and services create spillover costs and spillover benefits and these are referred to as negative and positive externalities, respectively. Ask students to watch the clip and look for externalities.

H. Clip: <https://www.youtube.com/watch?v=WjoDEQqyTig>

I. After Showing The Clip:

Discuss students' thoughts about the film. Students should recognize that each bird's decision to sit on the wire created spillover costs to other birds on the wire, particularly when the large exotic bird joined the others. Also, the decision of some to peck away at the exotic bird until he fell imposed spillover costs on the birds who were not doing the pecking. Transition to a lesson on externalities or the larger issue of the role of government in a market economy by explaining the learning objective - some possibilities are listed below.

Students will be able to:

1. Define externality.
2. Provide examples of negative and positive externalities.
3. Explain the ways governments might address externalities.

J. Possible Extension Lessons From econedlink.org:

[Clean Land - Thanks to US!](#) (3-5)

[Green Eggs and....Economics?](#) (9-12)

[New Sense, Inc. or Fish 'Till U Drop or Coase vs. Pigou](#) (9-12)

[What's the Problem with Digital TV?](#) (6-12)

4. Incredibles 2

A. Clip Description: The 2018 sequel to The Incredibles opens where the original left off, with the Incredible family fighting to stop The Underminer. By now, all superheroes have been forced into hiding by public outrage over the collateral damage crime-fighting Supers habitually

leave in their wake. Enter Winston Deavor, the head of a major telecommunications company. Winston wants to change the public's perception, by filming a superhero saving the day without any collateral damage. He wants Elastigirl to lead the campaign because a cost-benefit analysis by his sister determined that Elastigirl is able to solve crimes with far less damage than her husband, Mr. Incredible. That leaves the big guy in the role of stay-at-home dad. Elastigirl changes public opinion about the Supers as she defeats the villains because she is adept at minimizing property damage and loss of life. Good economists do likewise, by keeping costs as low as possible while getting the job done.

B. Photo:



C. Caption: Elastigirl fights the villains, while Mr. Incredible stays home with the kids.

D. Unit: Microeconomics

E. Standards:

1. CEE National Voluntary National Standards in Economics
 - Standard 4: Incentives
 - Standard 6: Specialization
2. C3 Social Studies State Standards in Economics (<http://www.socialstudies.org/system/files/c3/C3-Framework-for-Social-Studies.pdf>)
 - Economic Decision Making
 - D2.Eco.1.9-12. Analyze how incentives influence choices that may result in policies with a range of costs and benefits for different groups.
 - D2.Eco.2.9-12. Use marginal benefits and marginal costs to construct an argument for or against an approach or solution to an economic issue.

- Exchange and Markets
 - D2.Eco.3.K-2. Describe the skills and knowledge required to produce certain goods and services.

F. Key Terms/Concepts: cost-benefit analysis, cost minimization, specialization, efficiency

G. Before Showing The Clip:

As a warm-up or bellwork activity ask students:

1. Can you think of a time that you found a better way to do something? A way that used fewer resources or caused less damage? Explain.

Discuss students' responses to the prompt and, if necessary, introduce them to the term specialization. Show students the film clip and ask them to consider the following:

1. How would you describe the fighting abilities of Elastigirl and Mr. Incredible?
2. Which superhero can fight villains at the lowest cost to society?

H. Clip: https://www.youtube.com/watch?v=ljuU4_gEXwA

I. After Showing The Clip:

Discuss students' responses to the prompt. At least one student should be able to explain that Mr. Incredible causes a lot of collateral damage when he fights villains. Elastigirl is better at lowering the collateral damage while still getting the villains. Therefore, the "best pay" is to use Elastigirl to fight crime and have Mr. Incredible become a stay-at-home dad since Elastigirl achieves the same goal at a lower cost to society.

Students will be able to:

1. Explain the importance of specialization.
2. Identify strategies to reduce cost.
3. Use a cost-benefit analysis to achieve an objective.

J. Possible Extension Lessons From econedlink.org:

[Cost Benefit Analysis: Three Gorges Dam](#) (9-12)

[Mobile Phone Matter](#) (9-12)

[Dumptown, USA: Making a Ton of Difference](#) (9-12)

5. Inside Out

A. Clip Description: Inside Out (2015) is a hilarious romp that illustrates how five human emotions influence everyday decisions. The film shows that humans do not behave rationally but often are guided instead by mental shortcuts and influenced by emotional biases. Moreover, our different emotions provide different ways of framing the same situation. If there's an opportunity

to go out in the rain, Joy will ask if we want to go jump around in puddles, while Sadness will ask if we want to stand outside while our boots fill with water. Fear will wonder if it is safe and suggest we stay inside—that's the status quo bias.

Joy, the default emotion in the movie, influences us in ways that are usually good, but not always. Joy helps us face challenges and makes life worth living. Joy also derives utility from small acts of kindness and gives us the pluck to smile when life gets tough. Too much optimism is itself a kind of bias. When we are happy, we don't believe that bad things will happen to us, like traffic accidents—so we may drive too fast. (Joy rides, anyone?) Riley, the teenage girl who is the film's main character, needed more than simply Joy in her life. Riley also needed Sadness to help her cope with her cross-country move. Fear is constantly on the lookout for every possible danger that could befall Riley. Anger does his best to protect Riley from injustices like no dessert. Disgust is always looking out for Riley's best interests like making sure she doesn't wear tacky clothes or get poisoned by broccoli. Our emotions are complex, and each plays a crucial role in helping us navigate life. So it shouldn't be surprising to anyone trying to explain human behavior that our emotional states will influence our choices and how rationally or irrationally we make them.

B. Photo:



C. Caption: Our lives are a whirlwind of emotions, which make fully rational decisions impossible.

D. Unit: Microeconomics

E. Standards:

1. CEE National Voluntary National Standards in Economics

- Standard 2: Decision Making
- 2. C3 Social Studies State Standards in Economics (<http://www.socialstudies.org/system/files/c3/C3-Framework-for-Social-Studies.pdf>)
 - Economic Decision Making
 - D2.Eco.1.3-5. Compare the benefits and costs of individual choices.
 - D2.Eco.2.3-5. Identify positive and negative incentives that influence the decisions people make.

F. Key Terms/Concepts: rationality, choices, decision making

G. Before Showing The Clip:

As a warm-up or bellwork activity ask students:

1. How many of you are familiar with the movie Inside Out?
2. Would you describe yourself as emotional or analytical? Explain.

Briefly discuss students' responses to the warm-up/bellwork. Tell students that today the class will use a clip from the movie to learn about economic decision making in particular. Record how many students describe themselves as emotional or analytical on the board. Now ask your students whether they can make a rational choice if they are sad, angry, or scared. After discussing how our emotions make rational decisions more difficult, ask your students to describe times when they really thought hard about a decision and what process they used to decide.

H. Clip: <https://www.youtube.com/watch?v=Mx41SPMLBMg>

I. After Showing The Clip:

Use this discussion to transition to a lesson about the cost and benefits involved in making decisions. Possible learning objectives are listed below.

Students will be able to:

1. State that economic decisions are thoughtful and reasoned.
2. Explain how changes in our emotions make our behavior less predictable.

J. Possible Extension Lessons From econedlink.org:

[Toys for Me: A Lesson on Choice](#) (K-5)

["The Giver: Jonas Makes a Choice](#) (6-8)

The Economics of Voting: What Do You Mean My Vote Doesn't Count? (7-12) <https://www.econedlink.org/resources/the-economics-of-voting-what-do-you-mean-my-vote-doesnt-count/>

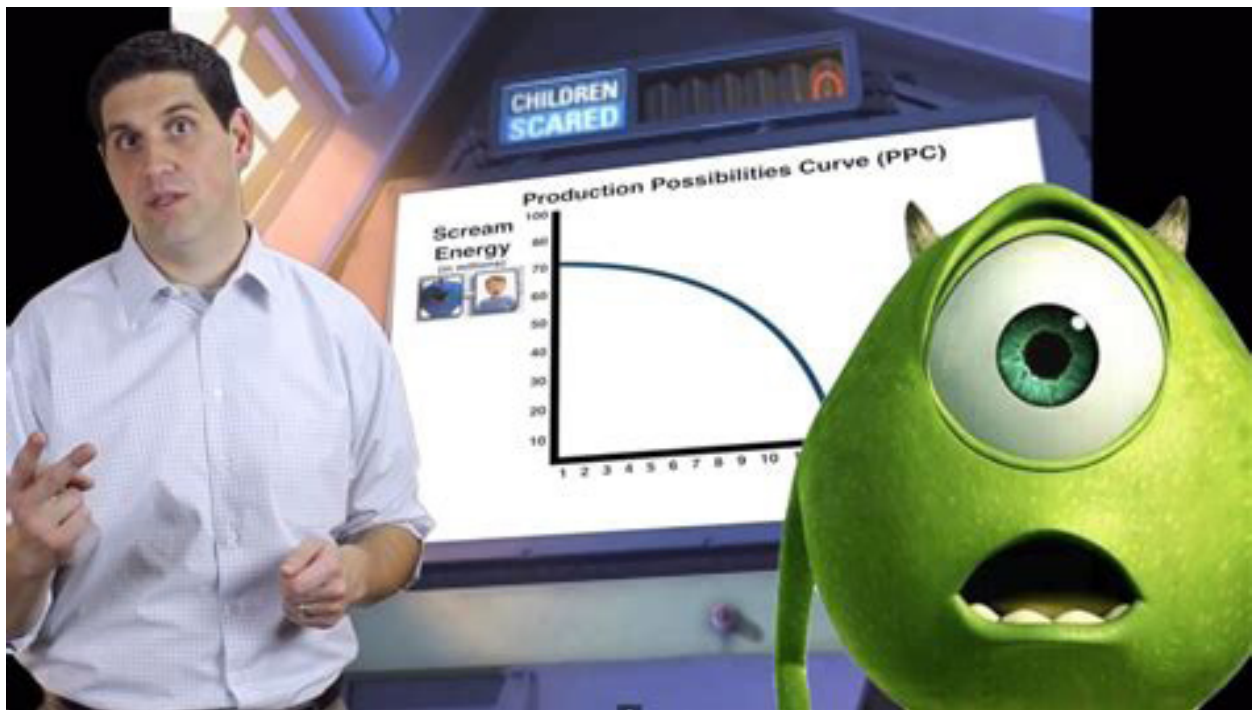
Behavioral Economics: Other Things Matter (9-12)

<https://www.econedlink.org/resources/behavioral-economics-lesson-five-other-things-matter/>

6. Monsters, Inc.

A. Clip Description: Delve into the production possibilities curve (PPC) and capital goods through the story of Monsters, Inc. The video clip uses plot points and scenes from the film to illustrate the concept of factors of production, as well as the difference between consumer and capital goods. The factors of production, land, labor, capital, and the entrepreneur, are clearly shown. The land would be the factory at which screams are produced, and the labor would be the monsters who produce the screams. The capital would be the scream meters and the entrepreneur would be the CEO of Monster's, Inc., Henry J. Waternoose. In the movie, there is a shortage of screams. The children are the main resource who produce screams, but they have become less productive. This shortage of screams pushes the PPC inward. This in turn, affects the sushi production because scream energy is a capital good, meaning it's a resource. If you don't have scream energy, you don't have anything. At the end of the movie, Sully finds that children's laughter is a much more powerful resource than screams. Children's laughter boosts production and pushes the PPC outward.

B. Photo:



C. Caption: Laughs are good for business.

D. Unit: Microeconomics/Macroeconomics

E. Standards:

1. CEE National Voluntary National Standards in Economics
 - Standard 1: Scarcity

- Standard 3: Allocation
- Standard 15: Economic Growth
 - C3 Social Studies State Standards in Economics (<http://www.socialstudies.org/system/files/c3/C3-Framework-for-Social-Studies.pdf>)
- Exchange and Markets
 - D2.Eco.3.3-5. Identify examples of the variety of resources (human capital, physical capital, and natural resources) that are used to produce goods and services.
 - D2.Eco.7.K-2. Describe examples of costs of production.
- The National Economy
 - D2.Eco.13.9-12. Explain why advancements in technology and investments in capital goods and human capital increase economic growth and standards of living.

F. Key Terms/Concepts: production possibilities, human capital, physical capital, technology, economic growth.

G. Before Showing The Clip:

As a warm-up or bellwork activity ask students:

- Ask you students to describe ways to produce more goods.

Discuss students' responses to the prompt and introduce them to the production possibilities frontier. Show students the film clip and ask them to consider the following:

- What role do screams and laughter play in producing more energy?
- If laughter is a more powerful energy source than screams what could Monsters, Inc. do to produce more energy?

H. Clip: <https://www.youtube.com/watch?v=tW4G5IPpzFY>

I. After Showing The Clip:

Since the video moves quickly, your debrief should be to replicate the PPF in the video and slowly describe exactly how a fall in the effectiveness of screams shifts the PPF inward and also how laughter shifts the PPF outward.

Students will be able to:

- Explain what causes a shift inward or outward in the PPF.
- Identify other changes that can shift a PPF outward or cause production to be inefficient (lie inside the PPF).
- Identify the opportunity cost of moving from one point along the PPF to another point on the PPF.

J. Possible Extension Lessons From econedlink.org:

[Using Slope to Compute Opportunity Cost](#) (9-12)

[Production Possibilities Curve](#) (9-12)

[Production Possibilities Frontier](#) (9-12)

7. One Man Band

A. Clip Description: A little girl is about to put a gold coin in a plaza fountain when two competing one-man bands attempt to win her coin. In successive rounds, each performer provides a more and more elaborate performance. As the competition intensifies, the girl drops her coin and it rolls into a drain. She demands compensation from the musicians in the form of an instrument which she plays and immediately earns some money.

B. Photo:



C. Caption: What's the difference between monopoly and monopsony?

D. Unit: Foundations/Basic Economic Concepts; Microeconomics

E. Standards:

1. CEE National Voluntary National Standards in Economics
 - Standard 7: Markets and Prices
 - Standard 8: Role of Prices
 - Standard 9: Market Structure and Competition
 - Standard 16: Role of Government and Market Failure

2. C3 Social Studies State Standards in Economics (<http://www.socialstudies.org/system/files/c3/C3-Framework-for-Social-Studies.pdf>)

- Exchange and Markets
 - D2.Eco.3.6-8. Explain the roles of buyers and sellers in product, labor, and financial markets.
 - D2.Eco.4.6-8. Describe the role of competition in the determination of prices and wages in a market economy.
 - D2.Eco.6.6-8. Explain how changes in supply and demand cause changes in prices and quantities of goods and services, labor, credit, and foreign currencies.
 - D2.Eco.5.9-12. Describe the consequences of competition in specific markets.

F. Key Terms/Concepts: competition, markets, price, invisible hand, consumer sovereignty, market structure, monopsony, perfect competition, monopoly, oligopoly

G. Before Showing The Clip:

As a warm-up or bellwork activity ask students:

1. What do businesses want?
2. What do consumers want?

Discuss students' responses to these questions. Students should recognize that firms and consumers want different things. Ask students if it is possible for both to get what they want?

Show students the clip and ask them to be ready to explain what each individual in the clip wants.

H. Clip: <https://www.youtube.com/watch?v=454nNoD6-TI>

I. After Showing The Clip:

Discuss students' thoughts on the clip. Students should be able to recognize that the girl wants to be entertained and the musicians want to earn income. It is possible for both the consumer and the producer to be satisfied (although it did not happen in this particular instance). Introduce students to the concept of the invisible hand of the power of the market to generate positive outcomes. Transition into a lesson on competition, markets, or market structures. Sample learning objectives are listed below.

Students will be able to:

1. Explain how competition in markets can generate positive outcomes for both buyers and sellers.
2. Identify and explain different market structures.

J. Possible Extension Lessons From econedlink.org:

[What is Competition?](#) (K-5)

[Competition Works in Our Favor](#) (3-8)

[Competition: Pizza!](#) (3-5)

[Airline Mergers, Software Industry Monopolies: Contestable Markets?](#) (9-12)

8. Toy Story 3

A. Clip Description: In this scene, Andy is getting ready to go off to college and his toys (Woody, Buzz Lightyear, Mr. and Mrs. Potato Head, and others) are contemplating their future with trepidation. The toys worry Andy no longer demands their services and they will be tossed aside or, worse yet, face the terrible fate of moving to the daycare center where they expect to be mistreated.

B. Photo:



C. Caption: Would you take Andy or Buzz?

D. Unit: Macroeconomics

E. Standards:

1. CEE National Voluntary National Standards in Economics
 - Standard 19: Unemployment and Inflation

- Standard 18: Economic Fluctuations
- Standard 16: Role of Government and Market Failure
- 2. C3 Social Studies State Standards in Economics (<http://www.socialstudies.org/system/files/c3/C3-Framework-for-Social-Studies.pdf>)
 - National Economy
 - D2.Eco.11.3-5. Explain the meaning of inflation, deflation, and unemployment.
 - D2.Eco.13.3-5. Describe ways people can increase productivity by using improved capital goods and improving their human capital.
 - D2.Eco.11.6-8. Use appropriate data to evaluate the state of employment, unemployment, inflation, total production, income, and economic growth in the economy.
 - D2.Eco.12.6-8. Explain how inflation, deflation, and unemployment affect different groups.

F. Key Terms/Concepts: unemployment, structural unemployment, labor markets

G. Before Showing The Clip:

As a warm-up or bellwork activity ask students:

1. Why might someone have a hard time finding a job? Make a list of possible reasons.

Discuss students' lists. They will likely mention limited hiring/recession, discrimination, inadequate training, a criminal record, technological change, etc.

Show students the clip and ask them to consider the situation faced by the toys. What might happen to the toys' employment? Why?

H. Clip: <https://youtu.be/MRHYZh-wfcc> and <https://youtu.be/0db7h10E0ul>

I. After Showing The Clip::

Discuss students' responses to the clip. Students should recognize that the toys may be losing their "jobs" not because they are unable to perform their duties, but because their services are no longer demanded. Explain that students will be learning about unemployment - how it is measured and different kinds of unemployment. Possible learning objectives are listed below.

Students will be able to:

1. Explain how the unemployment rate is calculated.
2. Identify and explain different types of unemployment.

J. Possible Extension Lessons From econedlink.org:

[Jobs: Who Needs 'Em?](#) (3-5)

[Who is Working?](#) (6-8)

[The Unemployment Game](#) (9-12)

[Unemployment in My Hometown](#) (9-12)

9. UP

A. Clip Description: Carl and Ellie as children dream of going to South America and building a house on Paradise Falls. When they grow up Carl and Ellie marry and continue to yearn for their South American adventure. They begin saving for their trip by depositing their change in a large glass jar. However, they are never able to save for very long as home and car repairs, as well as medical bills, arise. Before they know it, Carl and Ellie are senior citizens and still have not visited South America.

B. Photo:



C. Caption: Don't wait...

D. Unit: Personal Finance

E. Standards:

1. CEE National Financial Literacy Standards
 - Standard 2: Buying Goods and Services

- Standard 3: Saving
- 2. CEE National Voluntary National Standards in Economics
 - Standard 2: Decision Making
- 3. C3 Social Studies State Standards in Economics (<http://www.socialstudies.org/system/files/c3/C3-Framework-for-Social-Studies.pdf>)
 - Economic Decision Making
 - D2.Eco.1.6-8. Explain how economic decisions affect the well-being of individuals, businesses, and society.

F. Key Terms/Concepts: saving, spending, opportunity cost, budget, present bias/myopic behavior

G. Before Showing The Clip:

As a warm-up or bellwork activity ask students:

1. Have you ever saved up for a big purchase? If so, were you successful? Explain. If not, is there something expensive you would like to start planning for now? How will you be sure to have enough money to buy the good or service you desire?"

Ask several students to share their experiences. Explain one or more of the following learning goals.

Students will be able to:

1. Define key terms related to saving and spending.
2. Create a budget.
3. Explain the advantages of using a budget.

H. Clip: https://www.youtube.com/watch?v=F2bk_9T482g

I. After Showing The Clip:

Instruct students to discuss the following with a partner:

1. What did Carl and Ellie want to buy?
2. Why weren't they successful?
3. What could they have done differently?

Discuss students' thoughts on the clip aloud and transition into a lesson on saving and budgeting.

J. Possible Extension Lessons From econedlink.org:

[A Penny Saved is a Penny at 4.7% Earned](#) (9-12)

[Staying Afloat Financially in the 21st Century](#) (6-8)

[Opportunity Cost](#) (9-12)

[How Long is Your Life?](#) (9-12)

10. WALL-E

A. Clip Description: Economic concepts as the tragedy of the commons, collective ownership, personal incentives, and consumerism are all at work in *WALL-E*. Set 800 years in the future, the movie paints a grim picture of an earth that has been rendered inhabitable due to pollution and literally mountains of garbage. Although life has long since vanished, a single automated trash compactor – the title character – spends its days attempting to clean up the mess. When a higher-tech robot named Eve emerges from a spaceship, Wall-E is simultaneously terrified and intrigued. As we gradually learn, she is on a mission from a huge space station that houses the remaining human beings, and her job is to look for any signs of life on earth. If she spots something growing and brings it back to her superiors, they will know that the earth is once again habitable, and return to recolonize the home planet their ancestors destroyed. Or will they? Once the film moves to the space station, we find everyone is fat and happy. Their days are occupied with superficial pleasures supplied by BuyNLarge, a conglomerate that controlled the world before the meltdown. The humans of the future spend their days lying around on flying lounge chairs, eat junk food, and enjoy mindless entertainment. *WALL-E* paints a grim future where people have devolved over the generations.

B. Photo:



C. Caption: WALL-E can't save the planet by himself.

D. Unit: Microeconomics

E. Standards:

1. CEE National Voluntary National Standards in Economics

- Standard 1: Scarcity
 - Standard 3: Allocation
 - Standard 4: Incentives
2. C3 Social Studies State Standards in Economics (<http://www.socialstudies.org/system/files/c3/C3-Framework-for-Social-Studies.pdf>)
- Decision Making
 - D2.Eco.2.3-5. Identify positive and negative incentives that influence the decisions people make.
 - Exchange and Markets
 - D2.Eco.8.6-8. Explain how external benefits and costs influence market outcomes.
 - The Global Economy
 - D2.Eco.15.9-12. Explain how current globalization trends and policies affect economic growth, labor markets, rights of citizens, the environment, and resource and income distribution in different nations.

F. Key Terms/Concepts: Tragedy of the Commons, cost-benefit analysis, marginal thinking, inefficiency, myopic behavior.

G. Before Showing The Clip::

As a warm-up or bellwork activity ask students:

- to name locations where they live that have a lot of visible trash.

Discuss students' responses to the prompt and, if necessary, introduce them to the term the tragedy of the commons. Show students the film clip and ask them to consider the following:

- Could WALL-E clean up the entire planet by himself? What would he need to get rid of all the trash?
- Why do you think the humans left Earth on a spaceship rather than clean up the planet?

H. Clip: https://www.youtube.com/watch?v=vx-4Hz_W-TY (Opening Scene) and https://www.youtube.com/watch?time_continue=1&v=XkVyylPotfs (ECON POP analysis)

I. After Showing The Clip:

Discuss students' responses to the prompt. At least one student should be able to explain that WALL-E is too small to clean the entire planet – he would need help because his capacity to compact trash is small and the amount of trash already created is practically endless. Why the humans left is a tougher question. They presumably could see this happening but were unable to regulate their consumption or find a way to get rid of the trash. This is the Tragedy of the Commons and it occurs when everyone does what is best for themselves without thinking

about the welfare of those around them.

Students will be able to:

- Explain the importance the Tragedy of the Commons.
- Identify strategies to reduce waste and efficiently dispose of waste.

J. Possible Extension Lessons From econedlink.org:

[New Sense, Inc. vs. Fish 'Till U Drop or Coase Vs. Pigou](#) (9-12)

[Population Growth: Friend or Foe](#) (9-12)

[The Economics of Recycling](#) (9-12)

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