OVERVIEW OF THE LESSON:
This lesson is based on the book Twenty-Two Cents by Paula Yoo. In this book, Yoo tells the story of Muhammad Yunus, a Bangladeshi man who recognized the overwhelming challenge poverty-stricken people faced when trying to gain access to credit. As he got older, Yunus decided to study economics and used his knowledge of economics, business, and banking, to create a path from poverty to self-sufficiency for Bangladeshi women.

LESSON DESCRIPTION:
In this lesson students will explore a wide array of economic concepts related to entrepreneurship, banking, poverty, and economic decision making through the story of Muhammad Yunus, the founder of Grameen Bank. Students will take a variety of perspectives regarding current banking practices in Bangladesh, engage in PACED decision making, analyze economic data, compare economic issues in Bangladesh and the United States, and craft hypotheses on how current banking practices came to be.

GRADE LEVEL: 9-12

CONCEPTS: loans, interest, banks, poverty, entrepreneurship, charity, investment, currency, scarcity

ESSENTIAL QUESTION: How might good economic decision making help those in poverty?

OBJECTIVES:
Students will be able to:
1. Make an economic decision using the PACED decision guide;
2. Analyze economic data;
3. Make inferences about economic data; and

TIME REQUIRED: 60-minute class period (estimated)

MATERIALS:
- Twenty-Two Cents by Paula Yoo
- Visual 1: Credit Applications
- Visual 2: Map of Asia
- Visual 3: Vocabulary List
- Handout 1: Who Gets the Loan?
- Handout 2: Exit Ticket

PROCEDURE:

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PROCEDURE:
1. Ask students the following question: What is something you really want to buy right now that you cannot afford? What are some ways you can gain access to funds to pay for it? (Students may say they want to purchase a car and plan on saving up for it, or using a loan)
2. Have students share their answers. Tell students that people often want or need things they cannot afford. Tell them that today they will learn about a variety of people who want to make purchases and are seeking loans to make their purchases. Tell them that a loan is a sum of money expected to be paid back with interest (payment made for the use of money).
3. Ask students why lenders charge interest. (Answers will vary.)
4. Ask students what criteria they might consider when deciding to whom they should loan money from a pool of applicants. (Answers will vary but may include income, other debt, and employment status.)
5. Tell students that in just a moment, you will put them in groups of five. Each group of five will act as loan officers for a bank. Each group will read through five applications from people seeking credit. It is up to each group to decide who it will lend to and why.
6. Before grouping, distribute Handout 1 and read the directions out loud to the students.
7. Explain to students that they will be given applications from five different people seeking loans from the bank. Those applications will provide details about each person including: their occupation, their salary, the length of time at their jobs, how much money they need, how long they would like the bank to give them to pay the loan back and their debt-to-income ratio (this is a percentage of how much debt they already have relative to how much they make).
8. Explain to students that they will order each applicant on a favorability scale of 1-5, with 5 being the most favorable, for each criterion based on the information in their application. Each group should try to come to a consensus on this section. Deliberation is encouraged.
9. Divide students into groups of five.
10. Distribute Visual 1 to each group.
11. Tell students to read the applications and fill out the guide.
12. Tell students the bank has $50,000 to lend, and to write that number down in the blank space on Handout 1.
13. Once each group has made its decision, students should fill out the decision section beneath the guide.
14. Have each group share who it decided to grant the loans to, why, and for how much. (Students may have decided to award partial loans.)
15. Ask students what happens to the loans who were denied the loans. What other options do they have? (Answers will vary, but may include: they will not be able to buy what they needed the loan for, etc.)
16. Ask students why banks may deny loans to low-income borrowers. (Answers will vary, but may include that low-income borrowers have less income to repay the loan, could prioritize necessities before a loan payment, etc.)
17. Tell students that many low-income borrowers are classified as being in poverty. Tell students that poverty is a state of being very poor. For a family of four in the United States, the poverty threshold is a household income of $24,339 or less. (You can find additional statistics on poverty in the United States at: https://www.census.gov/topics/income/poverty.html)
18. Ask students if denying low-income borrowers a loan could keep them in poverty. (Answers will vary but may include that low-income borrowers may not get out of poverty if they can’t obtain funds to start a business, which in turn could help them could help pull them out of poverty.)
19. Tell students that today they will hear a story about a man from Bangladesh named Muhammad Yunus who recognized poverty where he lived, and how he thought of new, innovative ways to tackle the problem.
20. Before reading the book, use Visual 2 to show students where the story is set. Then use Visual 3 to review vocabulary that will be used in the story.
21. Read the story.
22. Summarize the story.
23. Ask students to identify the problem Yunus faced. (Answer: There was poverty where he lived and when poor people sought credit in hopes of getting out of poverty, they were denied because they were too poor.)

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COURTNEY WHEELER, FEDERAL RESERVE BANK OF KANSAS CITY

24. Ask students to describe Yunus’ innovative idea to tackle the problem. (Answer: micro-lending)
25. Ask students to define **micro-lending** (small loans issued by individuals to other individuals).
26. Ask students to develop a list of risks and benefits to micro-lending. Have students share their thoughts.
27. Ask students if micro-lending would work in the United States. Ask them to explain their reasoning.
28. Ask students how micro-loans could potentially impact an economy. What are ways people can participate in micro-lending?
29. Distribute Handout 2. Tell students to list ways that people can participate in micro-lending on Handout 2.

**ASSESSMENT:**
1. Use Handout 1 and 2 to assess student understanding.

**CONTENT STANDARDS:**

*Voluntary National Content Standards in Economics*

Content Standard 1, Benchmark 1, Grade 8: Students will know that scarcity is the condition of not being able to have all of the goods and services that one wants. It exists because human wants for goods and services exceed the quantity of the goods and services that can be produced using all available resources. Scarcity is experienced by individuals, governments, and societies.

Content Standard 5, Benchmark 1, Grade 8: Students will know that free trade increases worldwide material standards of living.

Content Standard 10, Benchmark 1, Grade 8: Students will know that banks and other financial institutions channel funds from savers to borrowers and investors.

Content Standard 10, Benchmark 4, Grade 8: Students will know that not-for-profit organizations are established primarily for religious, health, educational, civic, or social purposes and are exempt from certain taxes.

Content Standard 13, Benchmark 2, Grade 8: Students will know that to earn income people sell productive resources. These include their labor, capital, natural resources, and entrepreneurial talents.

Content Standard 13, Benchmark 2, Grade 8: Students will know that entrepreneurs organize resources to produce goods and services because they expect to earn profits.

*Common Core Standards*

CCSS.ELA-Literacy.RH.6-8.8: Students will be able to distinguish among fact, opinion, and reasoned judgment in a text.

CCSS.ELA-Literacy.RH.6-8.2: Students will be able to determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.

CCSS ELA-Literacy.RH.6-8.3: Students will be able to identify key steps in a text's description of a process related to history/social studies (e.g., how a bill becomes law, how interest rates are raised or lowered).
## Visual 1: Credit Applications

<table>
<thead>
<tr>
<th>Applicant #1</th>
<th>I work at the local bakery in town; I have owned the shop for 15 years now. Working at the bakery I make $70,000 a year. In order to keep up with the demand for my products I need to take out a loan of $15,000 so that I can buy additional ovens for my bakery. I would pay the loan off over the next seven years. Because I own my own business I do pretty well for myself and my debt to income ratio is 9%. Overall, the bank would make $1,452 on my loan because of the interest I would pay.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicant #2</td>
<td>As an accountant, I make $50,000 a year. I have been an accountant for the past five years and have been at my current firm for the past year. I am looking to buy a new car and need a loan of $35,000 dollars which I would pay off over the next five years. Because I am still paying off my student loans, my debt to income ratio is 15%. The bank would make a profit of $3,480.</td>
</tr>
<tr>
<td>Applicant #3</td>
<td>For the past several years, I have worked two part time jobs, one at a local restaurant and the other at a hotel working the front desk. Altogether, my yearly income amounts to about $23,000 a year. Because I had to purchase a car to get myself to and from work my debt to income ratio is somewhat high at 20%. I am looking to get a loan of $1,000 so that I can purchase materials to make decorative pillows by hand to sell at local craft fairs and farmers’ markets. I would repay the loan over a period of two years. Overall the bank would make a profit of $84.</td>
</tr>
<tr>
<td>Applicant #4</td>
<td>I have been an attorney for the past 25 years. On average, I make about $130,000 a year. My debt to income ratio is admirable at just 5%. I am looking to buy a sailboat for my family to use during the summer months, so I would like a loan of $50,000 which I would pay off over the course of the next 10 years, meaning that the profit that the bank would make on my loan would be $4,920.</td>
</tr>
<tr>
<td>Applicant #5</td>
<td>For 20 years I have worked as a teacher at the local high school. As a tenured teacher, I make $65,000 a year. My family is very frugal, and we try hard not to spend money we don’t have which makes our debt to income ratio 3%. Recently my daughter was accepted into Yale University, and I would like to take out a loan of $40,000 to pay for the tuition not covered by her scholarships. I would repay the loan over a period of 10 years which would mean the bank would make a profit of $3,960.</td>
</tr>
</tbody>
</table>
TWENTY-TWO CENTS: MUHAMMAD YUNUS AND THE VILLAGE BANK


Tina M. Ellsworth, Federal Reserve Bank of Kansas City
Courtney Wheeler, Federal Reserve Bank of Kansas City

VISUAL 2: MAP OF ASIA

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Chanachur: a snack mix made up of chick pea flour, peanuts, green beans, lentils, split chick peas, rice flakes, vegetable oil, and spices.

Economics: the social science that describes factors that determine the production, distribution, and consumption of goods and services.

Fulbright Scholar: an individual who has received a scholarship to attend graduate school in a country other than their native country.

Lecturer: an individual who is paid to give lectures or academic speeches.

Micro-credit/micro-lending: the lending of small amounts of money at low interest to new businesses in the developing world.

Pitha: a pan-fried dessert

Protests: a statement or action expressing disapproval.

Shanties: small, crudely built shacks.

Slum: a squalid and overcrowded urban street or district inhabited by very poor people.
**HANDOUT 1: WHO GETS THE LOAN?**

Name: __________________________________________ Date: __________ Hour: __________

**Directions:** Use the P.A.C.E.D. decision-making guide below to solve the problem you face. Begin by identifying/reading the problem. Then, determine the alternatives that are before you, read the criteria that you will use to help you determine who you will lend to, evaluate the alternatives against the criteria, and make your decision.

**Problem:** As a bank you have $50,000 to loan to consumers at a 10% interest rate. As a group of loan officers, it is your job to decide to whom you will loan the money. Read through the applications of those seeking credit. Using the P.A.C.E.D. decision-making guide below, on a scale from 1-5 rank each applicant’s favorability for each criterion. Then add up the points for each applicant. Then, in your groups decide who you will loan to and why. Write your decision in the space provided beneath the guide.

<table>
<thead>
<tr>
<th>Criteria: How you will determine to whom you will lend the money</th>
<th>Applicant #1</th>
<th>Applicant #2</th>
<th>Applicant #3</th>
<th>Applicant #4</th>
<th>Applicant #5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupation</td>
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<tr>
<td>Salary</td>
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<tr>
<td>Length of time on job</td>
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<tr>
<td>Amount needed</td>
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<td></td>
</tr>
<tr>
<td>Length of loan</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Debt-to-income ratio</td>
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</tr>
<tr>
<td>Profit for the bank</td>
<td></td>
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</table>

**TOTAL POINTS**

**Decision:**

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HANDOUT 2: EXIT TICKET

Directions: Answer the following prompt on the lines below. How might good economic decision making help those in poverty? Provide three examples.

___________________________________________________________________________________________________________

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