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BOOK SYNOPSIS: An abandoned bridge in Chennai, India is the backdrop for a gripping tale of overcoming adversity. Four determined children, Viji, Rukku, Arul, and Muthu, find themselves homeless in a world filled with threats and challenges. As they navigate the harsh realities of life on the streets, they rely on scavenging trash heaps and selling handmade beaded necklaces to make ends meet. Survival becomes their primary focus as they struggle to find work and to make money. Their story not only highlights the challenges marginalized communities face, but also how hard work and resilience can help overcome limits in education and social status.

LESSON DESCRIPTION:

This lesson will introduce students to economic concepts related to employment as they explore human capital needed for certain jobs and apply workforce-ready skills such as teamwork, organization, analysis, and more. Students will evaluate the connection between jobs and income and assess these from the perspective of disadvantaged and unhoused individuals. Through supplemental extension activities, students will have an opportunity to determine key criteria when considering their future careers, penpoint the comparative advantage in given situations, and strategize ways to boost productivity tied to work-related skills.

GRADE LEVEL: 6-8

CONCEPTS: Comparative advantage, employment, homeless/unhoused, human capital, income, productivity

OBJECTIVES:

Students will be able to:

- 1. Define employment, income, human capital, comparative advantage (extension only), and productivity (extension only).
- 2. Explain rationale for jobs available to the unhoused.
- 3. Simulate skills related to jobs in the lesson.
- 4. Analyze career-related skills.
- 5. Model common roles within the workforce.
- 6. Consider income connected to specific types of jobs.
- 7. Determine human capital involved in certain jobs.
- 8. Read excerpts about jobs from the lesson text. (Extension 3 only)
- 9. Ideate important factors for future jobs. (Extension 1 only)
- 10. Identify the comparative advantage in given scenarios. (Extension 2 only)
- 11. Calculate productivity. (Extension 4 only)
- 12. Devise strategies to improve productivity. (Extension 4 only)

TIME REQUIRED: 50-60 minutes, not including extension activities

MATERIALS:

- The Bridge Home by Padma Venkatraman [ISBN: 9781524738136] optional
- Visual 1: Job Options in The Bridge Home
- Visual 2A: Tea Shop Workstation
- Visual 2B: Trash Dump Workstation
- Visual 2C: Jewelry Making Workstation
- Visual 2D: Workstation Activity Guide



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- Visual 3: Increasing Productivity
- Handout 1: Human Capital on the Job, one per student
- Handout 1: Human Capital on the Job Answer Key
- Handout 2: Job Tracker Report, one per student
- Handout 3: Workstation Activity Numbers, three copies, cut apart in advance.
- Handout 4: What is Most Important in a Job?, one per student
- Handout 5: The Income Advantage, one per student
- Handout 5: The Income Advantage Answer Key
- Handout 6: Rukku and Viji Find Jobs, one per reader
- Handout 7: Productivity Challenge
- Handout 8: Education to Jobs Activity
- Handout 8: Education to Jobs Activity Answer Key
- 3 paper cups (or empty container)
- 3 stopwatches (or similar device)
- 1 damp washcloth in plastic bowl with about 1 cup of water
- 1 dry washcloth
- 1 plastic cup
- 1 plastic plate
- 1 broom
- 1 dustpan
- 1 roll masking tape
- 1 sheet of 8.5 x 11 paper
- Plastic forks, one per student
- Plastic knives, one per student
- Large paper napkins, one per student
- 1 box of crayons
- 1 box of colored pencils
- 1 box assorted multicolored thumbtacks
- 1 large box or plastic bin (with lid)
- Sheets of 11x17 paper, one per student
- 1 stapler
- 1 pair of scissors
- Large paper clips, 10 per student
- Small paper clips, 10 per student
- Wooden pencils (unsharpened), one per student
- Large binder clips, 1 per student
- Small binder clips, 1 per student
- Large rubber bands, one per student
- 1 stack of Post It notes

PREPARATION:

- Read a copy of the book, *The Bridge Home*, by Padma Venkatraman. (optional)
- Post Visual 2A, 2B, and 2C near tables in different areas of the classroom, leaving plenty of space between each.
- Copy Handouts 1, 2, and 4 (4 is for extension only), one per student.



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- Copy Handout 3, three copies, cut apart and placed into a paper cup, one set per cup.
- Secure three stopwatches (or similar device) for timekeeping purposes.
- Near Visual 2A: Tea Shop Workstation, set up a table with the following supplies:
 - 1 damp washcloth in plastic bowl with about 1 cup of water
 - 1 dry washcloth
 - 1 plastic cup
 - 1 plastic plate
 - o 1 broom
 - 1 dustpan
 - 1 roll masking tape
 - o 1 sheet of 8.5 x 11 paper
 - Plastic forks, one per student
 - Plastic knives, one per student
 - Large paper napkins, one per student
 - 1 timer (or similar device)
 - Paper cup with Handout 3, cut apart.
- Near Visual 2B: Trash Dump Workstation, set up a table with the following supplies:
 - 1 box of crayons
 - 1 box of colored pencils
 - 1 box assorted multicolored thumbtacks
 - Large box or plastic bin (with lid)
 - Sheets of 11x17 paper, one per student
 - o 1 stapler
 - o 1 pair of scissors
 - 1 timer (or similar device)
 - Paper cup with Handout 3, cut apart.
- Near Visual 2C: Jewelry Making Workstation, set up a table with the following supplies:
 - Large paper clips, 10 per student
 - Small paper clips, 10 per student
 - Wooden pencils (unsharpened), one per student
 - Large binder clips, 1 per student
 - Small binder clips, 1 per student
 - o Large rubber bands, one per student
 - A stack of Post It notes
 - 1 timer (or similar device)
 - o Paper cup with Handout 3, cut apart.

PROCEDURE:

- 1. Introduce the lesson by reading the book synopsis aloud.
- 2. Share that in the story two sisters in Chennai India become homeless after deciding to leave their home to escape harm.
- 3. Explain that according to United States Housing and Urban Development (HUD), being **homeless** or **unhoused** is defined as an individual or family that does not have a fixed, regular, and adequate place to stay overnight. This includes:
 - a. Those who do not have resources or support to maintain permanent housing
 - b. Those who have unstable shelter due to special needs or other barriers
 - c. Those escaping violence or assault and no longer have a place to live



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- d. Those who are residing somewhere not meant for housing, such as a car, the street, or an emergency shelter.
- 4. Tell students that the sisters, once homeless, have to find employment to help pay for food and other necessities.
- 5. Define **employment** as a job with an individual or a business that provides monetary payment in exchange for work.
- 6. Inform students that in the book the sisters discover employment options that enable them to get income.
- 7. Define **income** as payment people earn for the work they do.
- 8. Display Visual 1: Job Options in *The Bridge Home*.
- Review the jobs and job responsibilities identified on Visual 1.
- 10. Ask students which job they think should earn the highest income based on the list of responsibilities under each. (Answers will vary)
- 11. Share that all of the jobs available to the homeless children in *The Bridge Home* require certain skills or knowledge.
- 12. Define human capital as the knowledge and skills that people gain through education, experience, and training.
- 13. Refer to Visual 1 again.
- 14. Inform students that they will use Visual 1 to think about human capital involved for each job.
- 15. Distribute Handout 1: Human Capital on the Job, one per student.
- 16. Read the instructions aloud.
- 17. Divide students into pairs.
- 18. Allow 5-7 minutes for students to complete the handout.
- 19. Ask several pairs to share one skill or trait they identified and for which job. (Handout 1 Answer Key is provided for reference.)
- 20. Explain that the classroom will now become three work sites or stations representing jobs from the book.
- 21. Point out the three workstations around the room, indicated by Visual 2A, Visual 2B, and Visual 2C.
- 22. Tell students that each Visual ties to a job in the book and includes a list of tasks that students will complete.
- 23. Inform students that in addition to completing the tasks listed on the visuals, they will also have other jobs at their work site, like one might find at a typical workplace, such as a supervisor or inventory manager.
- 24. Share that as workers at each workstation, they will receive a handout to track their work and the work of others in their group.
- 25. Distribute a copy of Handout 2: Job Tracker Report, one to each student.
- 26. Display Visual 2D: Workstation Activity Guide.
- 27. Read Visual 2D aloud while walking through Handout 3 at the same time.
- 28. Explain that the tasks completed at each workstation represent the human capital needed for each of the three jobs.
- 29. Divide students into three groups and assign them to one of the three workstations.
- 30. Distribute Handout 3: Workstation Activity Numbers, one per group, cut apart in advance and placed in an empty paper cup or small container.
- 31. Ask each group of students to randomly draw a number from their group's cup/container.
- 32. Remind students that this will be the order in which they complete the jobs at their specific workstation.
- 33. Reinforce that all workers should have a job for each round and that they can refer to their handout and Visual 2D as needed for guidance.
- 34. Invite those who will be timekeepers to prepare their timers.
- 35. Inform students they will have about 15-20 minutes, depending on the number of students per group, to rotate amongst the jobs at their workstation.
- 36. Remind them to be prepared to share their results and experiences when finished.

CLOSURE:

- 37. Ask students to think about the tasks they completed at each station. (Answers will vary).
- 38. Remind students that human capital is the knowledge and skills needed to complete a given task or job.
- 39. Write Workstation A: Tea Shop on the board.
- 40. Invite students from that workstation to write examples on the board of human capital they used at their work site.
- 41. Repeat steps 39-40 for the other two workstations, Trash Dump and Jewelry Making.



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- 42. Ask students to think about what the income levels might be for the jobs at their workstation. (Answers will vary).
- 43. Ask the class if they had to rank the three jobs from the book by income, which one would earn the highest amount and why. (Answers will vary)
- 44. Ask students which of the jobs they believe would earn the lowest income and why. (Answers will vary)
- 45. Explain that in the story The Bridge Home, the children earned the highest income by selling beaded jewelry.
- 46. Ask the class why that might be. (Answers will vary, but may include: jewelry making required more/higher level skills than the other jobs; making jewelry took longer so should receive higher income; etc.)

ASSESSMENT:

- Ask students how to define employment.
 (Answer: a job with an individual or a business that provides monetary payment in exchange for work)
- Ask students how human capital and income are connected.
 (Answers will vary, but may include: the more human capital required, the higher the income; human capital advancement can increase income/earnings; etc.)
- Ask students why they believe the three jobs in the story were the only ones available to the children in the book.
 (Answers will vary, but may include: none of them require a lot of human capital/experience; these were jobs most did not want; these jobs did not have dress codes or other criteria that would be difficult for homeless people to meet; etc.)
- Ask students which job or position they enjoyed the most. (Answers will vary)
- Ask students which of the three jobs in the story they would choose and why. (Answers will vary)

EXTENSION ACTIVITIES:

ACTIVITY 1

- Ask the class what is important when considering a job. (Answers will vary)
- Distribute a copy of Handout 4: What is Most Important in a Job?, one to each student.
- Read the instructions aloud.
- Let students know they will have 10-12 minutes to complete the handout and can work with another student if they would like.
- After time elapses, ask students to share one item from their word web with the class.

ACTIVITY 2

- Distribute a copy of Handout 5: The Income Advantage, one per student.
- Read the instructions aloud, including the vocabulary terms and definitions at the top of page 1.
- Divide students into pairs to complete both pages of the handout.
- Give students approximately 7 minutes.
- Review the correct answers as a class using the provided answer key.

ACTIVITY 3

- Distribute a copy of Handout 6: Rukku and Viji Find Jobs, one per reader.
- Ask volunteers to read the book excerpts aloud, alternating volunteers for each of the three jobs.
- Ask students what they learned about the children and their homelessness through the reading. (Answers will vary).



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Ask students for examples of human capital and income from the excerpts. (Answers will vary, but may include: Rukku earned
money by selling her beaded necklaces; Rukku used jewelry-making skills; Rukku and Viji had to use cleaning skills to work off
their debt at the tea shop; Arul and Muthu trained Viji in the skills of identifying certain materials and sorting them accordingly at
the trash dump; Arul took what they found at the trash dump to the waste mart man in exchange for income; Viji and Rukku worked
to pay off their debt to the tea shop owner; etc.)

Teacher Note: If desired, incorporate props with the readings and have students act out the scenes while reading.

ACTIVITY 4

Teacher Note: The workstation activity, procedures 20-35, must be completed prior to this extension. Additionally, all workstation supplies will need to be reset to their original configuration beforehand.

- Ask students to review Handout 2: Job Tracker Report to identify the employee in their group who took the longest amount of time
 to complete the task list. (Answers will vary).
- Ask students which worker in their group completed the employee task list in the shortest amount of time. (Answers will vary).
- Ask students what they thought made the difference in the way each of these workers completed the tasks. (Answers will vary).
- Explain that the employee who completed the tasks more quickly had a higher rate of productivity.
- Define **productivity** as the ratio of output per worker per unit of time.
- Play the productivity video (6:34) for the class, https://www.stlouisfed.org/education/exploring-economics-video-series/productivity.
- Ask students how the characters in the video increased their productivity. (Answer: through division of labor and adding capital resources to help them produce bookmarks more quickly).
- Display Visual 3: Increasing Productivity and review the instructions with the class.
- Invite students to divide into groups of 2-3.
- Ask each group to select one of the task options from Visual 3 on a first-come, first-serve basis.
- Distribute Handout 7: Productivity Challenge, one per student.
- Ask groups to time themselves individually completing their task and to record results on their handout.
- Ask groups to brainstorm ways they might increase their productivity overall and to write their ideas on the handout.
- Give groups another 10-15 minutes to try out their ideas to see if productivity increases.
- Encourage students to try multiple ideas to either increase the number of times they can complete their task within a given amount of time or to decrease the time it takes overall for all group members to complete their task
- Review results from the challenge activity as a class, discussing the ideas they tried and which ideas were successful.

ACTIVITY 5

- In the book, The Bridge Home, the character Viji has an interest in becoming a teacher.
- Read chapter 40 of the book, pages 166-170, aloud to the class.
- Remind students that **human capital** is the knowledge and skills that people gain through education, experience, and training.
- Ask students if Viji already has human capital that might make her a good teacher. (Answers will vary).
- Explain that although Viii may have some human capital already, she needs more training and education to become a teacher.
- Share that improving your human capital can also help increase your potential income.
- Review that **income** is payment people earn for the work they do.
- Distribute Handout 8: Education to Jobs Activity, one to every student.
- Read the instructions aloud and give students 5-7 minutes to complete the handout. (Students can work in pairs or small groups if desired)
- Review correct answers using Handout 8 Answer Key.



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• Discuss as a class which jobs require more or less education and why they think that might be. (Answers will vary).

REFERENCES:

• Homeless population data – United States Department of Housing and Urban Development (HUD)

VOLUNTARY NATIONAL CONTENT STANDARDS IN ECONOMICS:

• Standard 13: Income – Income for most people is determined by the market value of the productive resources they sell. What workers earn primarily depends on the market value of what they produce.

NATIONAL STANDARDS FOR PERSONAL FINANCIAL EDUCATION:

• Standard I: Earning Income – Most people earn wage and salary income in return for working, and they can also earn income from interest, dividends, rents, entrepreneurship, business profits, or increases in the value of investments. Employers generally pay higher wages and salaries to more educated, skilled, and productive workers.

COMMON CORE CONTENT STANDARDS:

ELA-Reading Literature

Key Ideas and Details

Grade 6,7,8 - Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the
text. (Extension activity 3 only)

ELA-Reading Informational Text

Key Ideas and Details

 Grade 6,7,8 - Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. (Extension activity 3 only)

Integration of Knowledge and Ideas

• Grade 6 - Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue. (Extension activity 4 only)

ELA-Speaking and Listening

Comprehension and Collaboration

• Grade 6,7,8 - Engage effectively in a range of collaborative discussions with diverse partners on grade appropriate topics, texts, and issues, building on others' ideas and expressing their own clearly.



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VISUAL 1: JOB OPTIONS IN THE BRIDGE HOME



Serving food, rolling silverware, filling sugar containers, cleaning and setting tables, sweeping and mopping floors, and dish washing

Trash Dump

Identifying materials, sorting items, repurposing and reusing objects, and disposing of things safely





Stringing beads, creating necklaces and bracelets, evaluating materials needed, and coordinating items by color, style, and/or type



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VISUAL 2A: TEA SHOP WORKSTATION

WORKSTATION A: TEA SHOP

Job Tasks: Clean Dishes, Prep Tableware, and Sweep

Note: The list below should be completed by each group member when in the role of 'Employee'. <u>Tasks should be completed in the order listed.</u>

Employee Assignment:

- Wet the washcloth in the bowl of water and wring it out.
- Use the wet washcloth to wet the entire cup and entire plate.
- Use the dry washcloth to dry both the cup and plate.
- Stack the cup on the plate.
- Place one plastic fork on top of one plastic knife.
- Put the fork and knife in the corner of a napkin and roll them up.
- Tear off a small piece of masking tape to seal the plasticware inside the napkin.
- Put the roll of plasticware inside the cup.
- Place the sheet of paper on the ground.
- Sweep the paper around the entire perimeter of the table.
- Use the dustpan to sweep up the paper.
- Place the piece of paper back on the table.
- Tag the next group member in numerical order to start their turn.



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VISUAL 2B: TRASH DUMP WORKSTATION

WORKSTATION B: TRASH DUMP

Job Tasks: Sort and Repurpose Materials

Note: The list below should be completed by each group member when in the role of 'Employee'. <u>Tasks should be completed in the order listed</u>.

Employee Assignment:

- Remove the lid from the large box/bin.
- Empty the boxes of crayons, colored pencils, and thumbtacks into the large box/bin.
- Place the lid on the box/bin and shake it five times.
- Open the lid and sort each item by type (crayons, colored pencils, and thumbtacks), placing each item back into the appropriate box.
- Put the lid back on the box/bin.
- Take one sheet of paper and fold it neatly in half.
- Fold the paper in half again, making sure edges line up evenly.
- Unfold the paper and cut it carefully along the folded lines.
- Stack each piece of the cut apart paper on top of one another.
- Staple two corners of the stack to create a miniature notepad.
- Tag the next group member in numerical order to start their turn.



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VISUAL 2C: JEWELRY MAKING WORKSTATION

WORKSTATION C: JEWELRY MAKING

Job Tasks: Assemble Chains, Bundle Items, and Practice Precision

Note: The list below should be completed by each group member when in the role of 'Employee'. <u>Tasks should be completed in the order listed</u>.

Employee Assignment:

- Count out 10 large and 10 small paper clips.
- Link together all 20 paper clips, first large, then small, then large again, then small again, and so on, until they are one circular chain.
- Lay one rubber band flat on the table.
- Place a pencil on top, near the middle, and tie the rubber band in a knot around the pencil.
- Hold together both ends of the rubber band.
- Feed the ends of the rubber band through the two metal parts of a large binder clip and then the metal sides of a small binder clip.
- While keeping the pencil and binder clips connected, loop the rubber band around the pencil repeatedly to keep the items banded together (while not breaking the rubber band).
- Remove 15 sheets of Post-it notes, one at a time, restacking each neatly on top of the other (creating a new stack).
- Tag the next group member in numerical order to start their turn.



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VISUAL 2D: WORKSTATION ACTIVITY GUIDE

- The class will divide into three groups, and each will be assigned to one workstation: Tea Shop, Trash Dump, or Jewelry Making.
- At each workstation, you, the workers, will randomly draw a number between 1 and 12.
- This will be the sequence or order that you complete jobs.
- Each worker will have one job each round, which will rotate each round.
- All workers should use Handout 2 to track your work and the work of others in your group.
- Each round, fill in the blanks on the handout and check the 'Complete' space next to each job you finish.
- Rounds will proceed as follows:

ROUND 1

Employee Worker #1 Reader O Worker #2 Supervisor Worker #3 Timekeeper Worker #4 Inventory Manager Worker #5 O Worker #6 **Quality Control** Worker #7 Maintenance Workers #8-12 Teambuilding Coach(es)

ROUND 2

 Rotate to the job the worker with the number before yours had in the previous round. (Worker #2 will become 'Employee' and Worker #1 will shift to 'Teambuilding' and so on).

Note: If there are less than 12 in your group, skip any numbers that were not drawn and move to the next in numerical order. There are 8 jobs available per round. If your group has less than 8 members, vote in advance which jobs to eliminate and skip those jobs when rotating.

- Rounds should continue until all workers have been in the job of 'Employee'.
- Be prepared to share your results and experiences with the class when finished.



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VISUAL 3: INCREASING PRODUCTIVITY

Instructions: In this activity, small groups will choose a task to complete at one of the three workstations. There are 2-3 tasks available at each workstation and each task can only be selected by one group. The goal for each group is to increase productivity in completing your task. Let's see which group can be the most productive!

Task Options:

TEA SHOP	TRASH DUMP	JEWELRY MAKING
1. Clean dishes	1. Sort materials	1. Create a chain
2. Roll utensils	2. Create notepads	2. Form a paper stack
3. Sweep floor		3. Bind materials

<u>REMEMBER</u>

The calculation to determine productivity is:

OUTPUT 🛊 INPUT 🛊 TIME

OUTPUT = what you produce/your task

INPUT = your group members

TIME = the amount of time to produce/complete your task

*Use minutes to measure time in your calculation.



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HANDOUT 1: HUMAN CAPITAL ON THE JOB

Instructions: As a group, review the responsibilities for the jobs on Visual 1. Then create a list of human capital that would be helpful to have for each job in the space provided below.

be helpful to have for each job in the sp	ace provided belov	V.	
Job: Tea Shop			
Job: Trash Dump			
oob. Hash bamp			
Job: Jewelry Making			

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HANDOUT 1: HUMAN CAPITAL ON THE JOB ANSWER KEY

Instructions: With your group, review the responsibilities for all of the jobs on Visual 1. Then create a list of human capital that would be useful for each job in the space provided.

Job: Tea Shop

Answers will vary, but may include: attention to detail, cleaning ability, dexterity for pouring beverages, good balance for carrying food, organizational skills, physical strength/endurance for standing long periods, friendly, good memory for order taking, etc.

Job: Trash Dump

Answers will vary, but may include: attention to detail, organizational skills, physical strength, good eyesight, knowledge about various types of materials and their use, not easily intimidated/scared, etc.

Job: Jewelry Making

Answers will vary, but may include: attention to detail, creativity, good hand-eye coordination, dexterity/steady hands, knowledge about beads and beading materials, etc.



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HANDOUT 2: JOB TRACKER REPORT

Instructions: Complete the following as you and your group perform the jobs at your workstation. When you are not the employee, you should perform one of the other jobs in the table below. Check the 'Complete' box for each one you finish. Note: If there are less than eight in your group, decide by majority vote which of the jobs other than 'Employee' you will skip during the activity and mark them with an 'X' as a visual reminder.

I am worker #	at workstation	
---------------	----------------	--

COMPLETE	JOBS I HAD	FOR WORKER(S) #	DESCRIPTION	
	Employee	Leave blank	Complete the assigned tasks at your workstation (on the visual) in the order listed as accurately as possible.	
	Reader		Read the list on the visual aloud to help the employee complete the assigned task list.	
	Supervisor		Monitor the employee completing the assigned task list to ensure accuracy.	
	Timekeeper		Use the timer to track the amount of time it takes the employee to complete the assigned task list. Total time: minutes and seconds	
	Inventory Manager		Ensure all materials needed to complete the task list are available and ready for use after each employee finishes the assigned task list. Request teacher help if needed.	
	Quality Control		Make sure materials needed to complete the assigned task list are not damaged or unusable. If so, see the teacher for assistance.	
	Maintenance		Straighten up and organize materials after the assigned task list is completed (as needed).	
	Teambuilding Coach		Cheer on and encourage the employee completing the assigned task list.	



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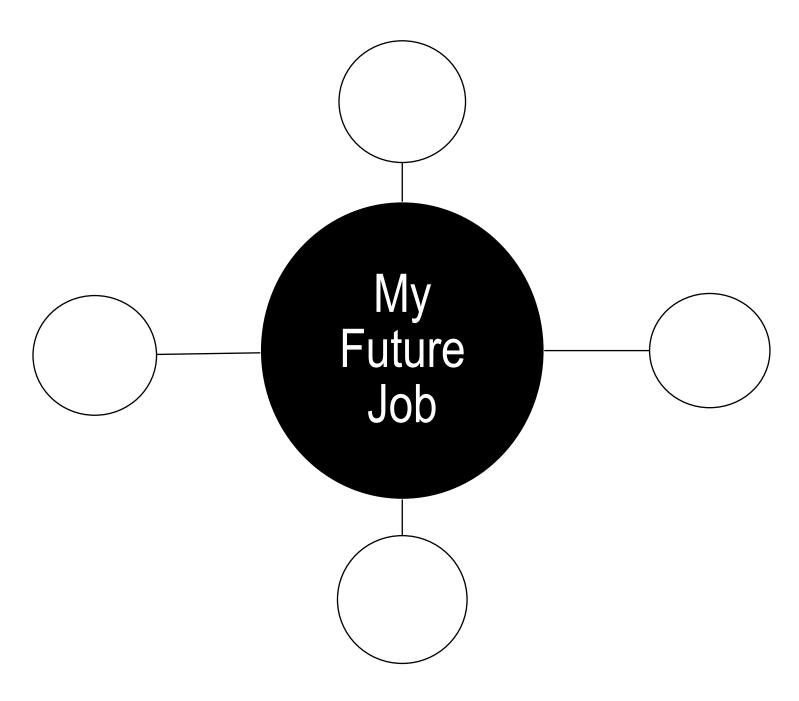
HANDOUT 3: WORKSTATION ACTIVITY NUMBERS

1	2	3
4	5	6
7	8	9
10	11	12

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HANDOUT 4: WHAT IS MOST IMPORTANT IN A JOB?

Instructions: Use the word web below to think about what is most important about your future job(s). Write each idea in one of the bubbles provided. Add more word bubbles as needed.



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HANDOUT 5: THE INCOME ADVANTAGE (PAGE 1 OF 2)

Instructions: Review the vocabulary terms and use the information provided to answer the questions that follow.

Income: Payment people earn for work they do

Opportunity Cost: The next best choice; what is given up when a decision is made

Comparative Advantage: Ability to produce something at a lower opportunity cost than another producer

Rupee: The official unit of currency in India, Pakistan, Sri Lanka, and other regions of the world.

In the story, *The Bridge Home*, sisters Viji and Rukku need to make money for food, supplies, and medicine. To earn income, they can either sort and recycle materials at the trash dump or make beaded necklaces to sell.





Viji can make one necklace and sort 20 kilos of trash a day. Rukku can make three necklaces and sort 5 kilos of trash a day. Rukku's necklaces sell for 50 rupees each and Viji's work at the trash dump can earn 160 rupees per day.

Who has a comparative advantage in trash sorting?	
2. Who has the comparative advantage in jewelry making?	_
3. How much income can Rukku earn if she makes all the necklaces she can in a day?	
4. Which sister can earn the most rupees per day?	
5. What is the opportunity cost if both sisters sort trash?	



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HANDOUT 5: THE INCOME ADVANTAGE (PAGE 2 OF 2)

	ictions: Mark the box next to the option with the comparative advantage in each scenario. Also, write pportunity cost for each scenario in the space provided and follow additional directions at the bottom.
	EXAMPLE: An artist can either build a sculpture or paint one room in a house per day. A housepainter can paint four rooms in a house a day. What is the artist's opportunity cost if he paints? Time spent building a sculpture.
6.	A fashion designer can design one outfit or sew two dresses a day. A seamstress can sew five dresses a day. What is the opportunity cost for the fashion designer?
7.	A dental hygienist can clean the teeth of three patients an hour or assist with one oral surgery. A dentist can clean the teeth of four patients in a day. What is the opportunity cost for the dental hygienist?
8.	An administrative assistant can type sixty words a minute, but would prefer to answer calls all day. A journalist can type twenty words a minute or research a news story. What is the journalist's opportunity cost?
9.	A bus driver delivers 45 passengers from 25 different stops to their destination per day. A pilot delivers 250 passengers to one destination per day. What could the bus driver's opportunity cost be?
10.	Choose one of the four scenarios above and research the income, human capital, and employmen

- opportunities in your city/state for both jobs. Use another sheet of paper to record your findings.
- 11. Choose another one of the four scenarios above and draw a picture of both workers in their work environment. Use a blank sheet of paper for your pictures.
- Create your own comparative advantage scenario on another sheet of paper. Include the correct 12. answer and the opportunity cost.



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HANDOUT 5: THE INCOME ADVANTAGE ANSWER KEY

- 1. Who has a comparative advantage in trash sorting? Viji
- 2. Who has the comparative advantage in jewelry making? Rukku
- 3. How much income can Rukku earn if she makes all the necklaces she can in a day? 150 rupees
- 4. Which sister can earn the most rupees per day? Viji
- 5. What is the opportunity cost if both sisters sort trash? Making jewelry
- 6. A fashion designer can design one outfit or sew two dresses a day.

 A seamstress can sew five dresses a day.

 What is the opportunity cost for the fashion designer? Designing a new outfit
- 7. A dental hygienist can clean the teeth of three patients an hour or assist with one oral surgery.

 A dentist can clean the teeth of four patients in a day.

 What is the opportunity cost for the dental hygienist? Assisting with oral surgery
- 8. An administrative assistant can type sixty words a minute, but would prefer to answer calls all day.

 A journalist can type twenty words a minute or research a news story.

 What is the journalist's opportunity cost? Researching a news story
- 9. A bus driver delivers 45 passengers from 25 different stops to their destination per day.

 A pilot delivers 250 passengers to one destination per day.

 What could the bus driver's opportunity cost be? Answers will vary.
- 10. Answers will vary.
- 11. Answers will vary.
- 12. Answers will vary.



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HANDOUT 6: RUKKU AND VIJI FIND JOBS (PAGE 1 OF 8)

Job: Tea Shop

Characters: Viji, Rukku, and Tea Shop Owner

Excerpt: Chapter 5: Shards of Glass (pages 18-19)

Viji: Turning the corner, we found ourselves on an even narrower street, lined with shacks selling food. In one of them, a man stood behind a rickety counter. You watched, fascinated, as he poured steaming tea from one glass tumbler into another until a layer of froth bubbled across the rim. "We deserve a treat," I said. "How about sweet, milky tea instead of the sweet I promised you?"

Rukku: "Tea."

Viji: I was worried about how little money we had left, so I ordered us just one to share. As it warmed my hands and bubbles of froth tickled my lips, I knew it was worth the price. I sipped slowly, then held it out to you. "Careful, Rukku. It's hot." But before you could wrap your fingers around the slippery glass, I accidentally let go.

Rukku: "Ai-ai-yo!"

Viji: Horrified, I watched the glass shatter on the ground, spattering tea across the hems of our skirts.

Rukku: "Pretty."

Viji: You reach down for a sparkly shard of glass. "Don't touch!" I grabbed your hands. "It's sharp, Rukku! It'll give you an owwa!!"

Rukku: "Owwa."

Viji: The teashop owner scowled at us. "Do you know how much that glass cost?" he asked. Not that much, I was sure, but just before I opened my mouth to apologize, an idea struck me. "Sir?" I offered. "We'll work to pay for the broken glass."

Tea Shop Owner: "Okay. Clean up the mess. Then go to the kitchen and help my wife."

Viji: "Yes, sir."

Rukku: "Viji?"

Viji: You sounded uncertain. "Everything's fine Rukku." I gave you a quick hug. "We've found our first job."



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HANDOUT 6: RUKKU AND VIJI FIND JOBS (PAGE 2 OF 8)

Job: Trash Dump

Characters: Viji, Rukku, Muthu, and Arul

Excerpts: Chapters 14 & 15 - Climbing the Himalayas and Earning Our Way (pages 58-65)

Viji: You marched a few feet away from us, and away from the dump, and stood with your hands on your hips. "Sorry Rukku," I said. "We have to stay."

Rukku: "No, Viji. Go."

Viji: "We don't have a choice. Believe me, I don't love it here." You pinched your nostrils shut. "It's not the nicest place but—it's so we can stay together, Rukku." Then you cocked your head. "If I don't work here and earn money, we'll have to run right back. Understand?"

Rukku: "Viji and Rukku. Together."

Viji: You came over and patted my cheek. I hugged you tight. I had to start working. "What do I do?" I asked.

Muthu: "Search. For treasure. Like this. Glass or metal scraps are best. The waste mart man will even buy cardboard and cloth if they're not too tattered."

Viji: Hesitantly, I prodded the mound closest to me. Nestling between a rusty can and a broken bottle was the carcass of a rat. Nausea rippled through me, but I couldn't give up before I started. I tried to pick up the bottle with my stick, but it slid deeper into the rubbish.

Arul: "The waste mart man pays nicely for glass and metal, so we can't let it go."

Viji: Arul grabbed the bottle with his bare hands and dropped it into my sack. "Thanks. Sorry," I said.

Arul: "Don't worry, you'll be an expert in no time."

Viji: I didn't say, *I don't want to become an expert ragpicker. I want to be a teacher.* With an effort, I swallowed my words and the bile that had risen in my throat and stepped farther into the mound. The rubbish heap seemed to come alive as I walked through it, sucking at my slippers like a hungry beast. My feet sank into the slimy mess, and I lost sight of my toes. Flies swarmed around my ankles.

Arul: "Shuffle along slowly, like you're wading through a river."



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HANDOUT 6: RUKKU AND VIJI FIND JOBS (PAGE 3 OF 8)

Viji: He made it sound easy, but it wasn't. I squelched along as best I could, making slow progress. I wanted to run away screaming. Arul must have realized what a slog it was for me, because every now and then he'd call out.

Arul: "Nice work."

Viji: We worked for so long with the sun beating down on our skin that my head started to hammer with pain, and it was a mercy when Arul finally said,

Arul: "Enough. Let's stop."

Viji: Even half empty, my sack was heavier than anything I'd carried before. On the way to the waste mart, we stopped by a park where there was a small pond. I stretched my aching arms and rinsed off my slippers. They were unrecognizably dirty, and so was my skirt, even though I'd hiked it up when I worked. You watched as the boys carefully separated our rubbish into piles: cardboard, metal, plastic, glass.

Rukku: "Rukku wants to help."

Viji: "No," I said. "You could cut your hand on a rusty tin."

Rukku: "Rukku wants to help! Rukku wants to help!"

Arul: "If you don't mind, why don't we let her help?"

Viji: "You're joking," I said, though he sounded serious.

Arul: "Don't you ever let her do what she wants? Viji, you've got to stop bossing her--"

Viji: "How dare you call me bossy!" Then, Arul softened his tone but not his words.

Arul: "You're acting like you own Rukku. Muthu calls me boss, but I don't boss him around all the time."

Viji: His words pierced me like needles.

Arul: "Viji, I'm sorry. I see you're trying to protect your sister, but I bet she can do more than you think."

Viji: "Okay, let Rukku help. But if she slices her hand in half—"

Arul: "You get to slice my hand in half?"



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HANDOUT 6: RUKKU AND VIJI FIND JOBS (PAGE 4 OF 8)

Viji: Arul grinned and I said, "I get to slice your hands into little tiny pieces!"

Arul: "Agreed!"

Viji: So, Arul showed you how to separate and sort the trash. As I watched you stacking pieces of cardboard and humming joyfully, the realization stabbed me that even I expected too little of you. When you were done, your eyes shone. You said to yourself,

Rukku: "Good work."

Arul: "That's right. You're the best helper."

Viji: "That's too much, I said to Arul when he handed me half of what we'd earned that day. I only collected about a quarter of what you two did."

Arul: "If I was too ill to collect anything tomorrow, what would you do?"

Viji: "I'd share everything we had."

Arul: "So, whatever money we earn belongs to all of us, equally, right? That's how it's been with me and Muthu, and that's how we like it."

Muthu: "Right, boss. You want to stick with us, you play by our rules."

Viji: I felt too trembly to say thanks. A good kind of trembly. Not weak and fearful, like when we were home. The rupee notes we'd earned were crumpled and dirty. One of them was torn off at the corner. Another had a brown smudge running across Mahatma Gandhi's face. But they looked beautiful to me. Disgusting though the work had been, we finally had money all our own. Our money. I rubbed the notes between my fingers, as though they were fine silk. If we'd been rich, I'd have held on to them forever, just so I'd remember the feeling of freedom they'd given me.



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HANDOUT 6: RUKKU AND VIJI FIND JOBS (PAGE 5 OF 8)

Job: Jewelry Making

Characters: Viji, Rukku, Muthu, Arul, Girl #1, Girl #2, and Girl #3

Excerpt: Chapter 17 – How You Became a Businesswoman (pages 71-75)

Arul: "I'll go to the waste man and meet you back at the bridge. You two should go and see the nice part of the beach with Muthu."

Muthu: "Don't you want me to come and keep an eye on the scales to make sure the waste man doesn't cheat us?

Arul: "I'll be fine. The girls are new to the city, and they deserve to see something nice after all the hard work."

Viji: So, Muthu led us to what he called the "rich" section of the beach, where we could see sand dunes instead of trash hills, and my lungs filled with the welcome scents of salt and spray. We strolled along the walkway between the road and the beach, past pushcarts piled high with corn and peanuts and hawkers selling multicolored plastic balls and cricket bats, flimsy kites, toys, dolls, pinwheels."

Rukku: "Balloon? Green balloon?"

Viji: "Not enough money."

Rukku: "Money? Money?"

Muthu: "You take a balloon from someone; you have to give them money. When we take bananas, we give the vendor our money. People sell their things for money."

Viji: Muthu tried to explain, as I'd tried so many times before.

Rukku: "Sell necklaces? Money?"

Viji: "Yes! That's how money works!"

Rukku: "Sell necklaces. Get money. Get balloon."

Viji: You sounded very pleased with yourself.

Muthu: "What a good idea! We could sell your necklaces."



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HANDOUT 6: RUKKU AND VIJI FIND JOBS (PAGE 6 OF 8)

Viji: Muthu patted you on the back. "Would anyone buy them?" I asked as Muthu gestured at a vendor who was dozing in the shade of a pushcart piled high with the ugliest plastic dolls I'd ever seen. "If he's trying to sell those, why can't we try to sell her jewelry?" The two of you picked a spot on the walkway and arranged the six necklaces that you'd finished in a neat line.

Muthu: "Necklaces for sale. Pretty bead necklace."

Viji: Groups of pedestrians bustled past without casting a glance in our direction. I was thinking we should give up when two girls walked by. They carried bags filled with books and looked old enough and well-dressed enough to be in college.

Girl #1: "How much?"

Viji: Asked one of the girls as she pointed to a necklace with red beads in which you'd tied your special loops and knots.

Muthu: "Two hundred rupees."

Viji: I nearly fainted.

Girl #1: "One."

Muthu: "Two"

Rukku: "Three"

Girl #1: Did you just raise the price instead of lowering it?"

Viji: Asked the girl while smiling at you.

Girl #1: "Three?"

Rukku: "Four."

Viji: "My sister means one hundred fifty rupees."

Rukku: "Three, three, four, five, six."

Viji: You sang.



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HANDOUT 6: RUKKU AND VIJI FIND JOBS (PAGE 7 OF 8)

Girl #1: "I'd better pay before the price soars ever higher."

Viji: The girl laughed and then fished in her bag for her money.

Girl #2: "I can't believe you're actually spending your money on that."

Girl #1: "What's a hundred and fifty rupees? These kids are cute, and the necklaces are pretty."

Rukku: "Pretty."

Viji: You said as you wrapped one around a finger and twirled It so the beads caught the sunlight.

Girl #1: "That's right. Very pretty."

Viji: Said the girl as she slid her new necklace over her head. We couldn't have asked for a better model. The girl's golden-brown skin set off the beads, making them sparkle even more.

Girl #1: "We'll send some friends your way."

Viji: She promised as she walked away Sure enough, another college girl came by soon, her pink sari swishing around her heels.

Girl #3: "There you are! I'll take one."

Viji: "Which one?"

Girl #3: "Whichever, doesn't matter."

Viji: "One hundred fifty." I handed over a pink one to match her sari. She gave me two hundred and I returned the extra fifty.

Girl #3: "Keep it."

Viji: "We settled on one hundred and fifty. We don't need charity."

Girl #3: "You're not offended, are you? I'm sorry."

Viji: "Not offended," I said. In less than an hour, you'd sold all but one necklace and we had earned a small fortune. "You're a miracle, Rukku! Your necklaces are worth their weight in gold!"

Rukku: "Balloon!"



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HANDOUT 6: RUKKU AND VIJI FIND JOBS (PAGE 8 OF 8)

Viji: We walked with you to the balloon stand, though I worried about whether buying a balloon was really such a good idea. Amma had bought us a huge balloon once, and we had fun with it until it burst, and the loud noise set you off. But my worry dwindled when I looked at you. Standing erect, an openmouthed smile spread wide across your face, you picked out a long, bottle-green balloon. "You give him the money Rukku. You earned it." I counted out the exact amount and put it into your outstretched palm. You then handed over the money. I'd never seen you stand so tall before. That was something. No. That was everything.



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HANDOUT 7: PRODUCTIVITY CHALLENGE

Instructions: Your goal is to find a way to increase your group's productivity. First, determine how long it takes each group member to complete your task. Next, brainstorm ways to increase your productivity by decreasing the total amount of time taken to complete your task. Try out your ideas to measure your success using the productivity calculation.

My group's workstation	n is:	
Our task is:		
Group Memb	per Name	# of Minutes to Complete Task
		Time =
# of times task completed	# of group members	# of minutes total for entire group
Group Memb	per Name	# of Minutes to Complete Task
Output =	Innut =	Time =
# of times task completed	# of group members	

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HANDOUT 8: EDUCATION TO JOBS ACTIVITY

Instructions: Match each job on the right with the required level of education on the left by placing the correct letter (A, B, C or D) in the space provided next to each job.

A. HIGH SCHOOL DIPLOMA

B. ASSOCIATE'S DEGREE/ TRADE SCHOOL

C. BACHELOR'S DEGREE

D. MASTER'S DEGREE/ DOCTORATE DEGREE



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HANDOUT 8: EDUCATION TO JOBS ACTIVITY ANSWER KEY

A. HIGH SCHOOL DIPLOMA

B. ASSOCIATE'S DEGREE/ TRADE SCHOOL

C. BACHELOR'S DEGREE

D. MASTER'S DEGREE/ DOCTORATE DEGREE

C	Accountant
В	Administrative Assistant
В	Carpenter
D	Data Scientist
В	Dental Hygienist
A	Dishwasher
D	Doctor
D	Economist
В	Fashion Designer
C	Information Technology Manager
C	Journalist
A	Newspaper Deliverer
В	Paralegal
C	Pastor
C	Pilot
В	Radiologist
C	Software Engineer
C	Teacher
D	Therapist
A	Waitress
A	Waste Sorter

Teacher's Note: The answers provided above are generalizations for these careers and there may be some exceptions.

