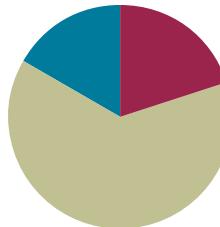


Lesson 1

Objective: Explore the relationship between human capital and income.

Suggested Lesson Structure

Fluency Practice	(12 minutes)
Concept Development	(38 minutes)
Student Debrief	(10 minutes)
Total Time	(60 minutes)



Fluency Practice (12 minutes)

- Name the Value **2.5B, 3.4C** (6 minutes)
- Ordering Numbers **3.2D** (6 minutes)

Name the Value (6 minutes)

Materials: (T) Real or plastic U.S. bills and coins (S) Personal white board

Note: In this fluency activity, students first determine the value of a collection of coins and bills, then write the value using the dollar sign and a decimal point.

- T: (Display 3 dimes and 4 pennies.) Say the value of the coins.
S: Thirty-four cents.
T: Write the value of the money. Use the dollar sign and a decimal point.
S: (Write \$0.34.)
T: (Display 2 one-dollar bills.) Say the value of the bills.
S: Two dollars.
T: Write the value of the money.
S: (Write \$2.00.)
T: (Display the combined bills and coins.) Say the value of the money.
S: Two dollars and thirty-four cents.
T: Write the value of the money.
S: (Write \$2.34.)

Repeat the sequence with: 2 quarters, 1 dime;

- 1 five-dollar bill;
combine the bills and coins (\$5.60)
4 dimes, 1 nickel, 1 penny;
1 five-dollar bill, 1 one-dollar bill;
combine the bills and coins (\$6.46)



Ordering Numbers (6 minutes)

Materials: (S) Personal white board

Note: In this fluency activity, students practice putting large numbers in order from least to greatest and from greatest to least.

- T: (Write the following numbers on the board: 77,654; 76,754; 77,554.) Write these numbers in order from least to greatest.
S: (Write 76,754; 77,554; 77,654.)
T: (Write the following numbers on the board: 67,432; 67,342; 76,243.) Write these numbers in order from greatest to least.
S: (Write 76,243, 67,432, 67,342.)

Continue the process with the following sets of numbers:

23,457; 23,547; 23,754

90,231; 90,212; 90,241

98,673; 98,670; 98,678

Concept Development (38 minutes)

Materials: (S) Problem Set

Problem 1

- T: There are many different types of jobs that people do. What are some jobs you know about? What job do you think you might want to do one day? Why? Write your thoughts on your Problem Set. Then turn and talk to your partner about what you wrote.
S: (Write and talk with partner.)
T: When we talk about people who work, we are describing **labor**. Talk to your partner about why someone might choose a certain job.
S: People want to do what is interesting to them. → People might choose jobs because they are good at them. → Some people may choose one job over another based on what the job pays. → Some people may look at how many hours per day they would need to be at work.
T: Let me write down what I hear you saying. (Write “Talent.”) Some of you said that people choose jobs based on their talents. (Write “Interest” and “Schedule.”) Others said that people choose jobs that interest them or offer a schedule that works best for them. (Write “Salary.”) I also heard some of you talk about the amount of money people can earn from doing different types of jobs. Everyone chooses jobs for different reasons. Let’s write these four reasons on the Problem Set.
S: (Write.)

Problem 2

- T: There are different types of schools that people can choose to attend after high school. The schools offer people training and education for the type of job they want. People earn degrees or certificates when they finish their studies. Some of you may know someone that went to school after finishing high school. What types of degrees or certificates do you know about? Turn and talk to your partner.



- S: My uncle just got his certification to be a firefighter. → My cousin is taking classes to learn to work in a hair salon. → I have an aunt in medical school. She's learning to be a doctor. → My mom told me she has a master's degree. → My dad went to culinary school to be a chef.
- T: There are lots of different types of certificates and degrees based on the type of job you want. Each one takes a different amount of time to earn. People can usually earn a certificate in a few months to two years. An associate's degree usually takes two years to earn and a bachelor's degree takes four years. A master's degree usually takes an additional 1–2 years after earning a bachelor's degree, and a doctoral degree takes at least an additional 1–2 years after earning a master's degree. Some degrees can take as long as 10 years to earn. After the certificate or degree is completed, people can start working in the job they trained for.
- T: What patterns do you see in Ben's data on your Problem Set? Turn and talk to your partner. Then write your observations on the Problem Set.
- S: The salaries of the professions are in order from least to greatest. → The profession with the highest salary also has the most years of education needed after high school. → The profession with the lowest salary has just 1 year of school after high school. → The number of years of school mostly goes in order, but not always.
- T: Are the numbers of years of study in Ben's table also in order?
- S: Well, the one with the highest salary has the most years and the one with the lowest salary has the least years, but the others go up and down a bit.
- T: Suppose that someone went to school for 5 years to become a CPA, a certified public accountant. Where do you think we would place this profession in the table?
- S: Probably closer to the bottom of the table, around architect or computer hardware engineer.
- T: The typical salary of a CPA is actually \$119,000, so just a bit less than computer hardware engineer. Looking at the salaries, do you think every person in each of these jobs makes exactly the amount of money shown in this table? Why or why not?
- S: I don't think so. Someone starting out probably makes less money. → If someone works fewer hours, they probably earn less. → Maybe someone learned to do something extra, so they earn more money.



NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Students can research professions and salaries that interest them online.

- payscale.com
- careereexplorer.com
- study.com

Discuss each profession in the table to ensure that students have some knowledge about each profession.

English language learners may need extra support in reading the professions in the table. Pair them with a native English speaker as a support.

Name _____	Date _____
1. List different types of jobs. Put a check mark next to the jobs on your list that interest you most.	
<p>Work on cars Lawyer Doctor Baker Fireman Policeman</p>	<p>Work in a store ✓ Invent video games ✓ Work with computers Make movies ✓ Make apps for phones</p>
2. List 4 reasons people may have for choosing their jobs.	
<p>Talent Interest Schedule Salary</p>	

T: That's right, this table shows the amount of money that people in these jobs typically make in a year. That means they took the salaries of a bunch of people who do each job, and this is the amount in the middle. Within a profession, people are paid different amounts depending on their experience and additional schooling.

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to modify the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW approach used for Application Problems.

Student Debrief (10 minutes)

Lesson Objective: Explore the relationship between human capital and income.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- What are some reasons why people choose certain jobs?
- What kinds of things did we talk about today that affect how much money someone can earn at a job?
- What patterns did we notice about how long a person goes to school and how much they earn at their job? Is this always true? Why or why not?

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

3. Ben Jones is nearing the end of eighth grade and has started thinking about his future. He is looking into different career choices that interest him. The table below shows the professions, or jobs, Ben has researched so far.

Profession	Years of Education Needed After High School	Typical Annual Salary
Optician	1	\$37,010
Professional Chef	2	\$45,950
Air Conditioning Technician	2	\$47,753
Paralegal	2	\$53,180
Nutritionist	4	\$60,370
Biomedical Engineer	4	\$67,000
Registered Nurse	4	\$71,730
Medical Sonographer	2	\$73,860
Architect	5	\$80,750
Computer Hardware Engineer	4	\$117,220
Lawyer	7	\$144,230
Orthodontist	10	\$225,760

- a. What patterns do you notice in the data?

It seems like the longer you go to school, the more money you might make. There are some jobs that don't follow that pattern in the table.

- b. The table gives the typical yearly salary for each profession. Why might someone's salary be different from the numbers in the chart?

A person might make a different salary from the chart because they have a different amount of experience of schooling.

4. Four years of education is necessary to become a respiratory therapist. Using the data in the table, select the choice that most likely shows the yearly salary of a respiratory therapist.

- a. \$20,540
b. \$35,650
c. \$60,280
d. \$95,120

5. Jordyn went to school to earn a degree as a nutritionist. Before getting her first job, she completed an additional nutritionist certification. How might her salary compare to the salary of another nutritionist with the same amount of experience as Jordyn? Explain your thinking.

Jordyn might make a little higher salary because she has more training.

6. Charlie just started out as a professional chef. He became a professional chef because his aunt earns \$68,000 a year as a chef. At his first job, he earns a yearly salary of \$21,000. He wants to know why he is paid less than his aunt. What would you tell Charlie?

I would tell Charlie that his aunt makes more money because she has more experience. When he works for longer, he will probably make more money too.

Name _____

Date _____

1. List different types of jobs. Put a check mark next to the jobs on your list that interest you most.

2. List 4 reasons people may have for choosing their jobs.



3. Ben Jones is nearing the end of eighth grade and has started thinking about his future. He is looking into different career choices that interest him. The table below shows the professions, or jobs, Ben has researched so far.

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Name _____

Date _____

1. How does the amount of time someone goes to school usually affect the money they earn at their job?

2. A paralegal goes to school for 2 years and usually earns an annual salary of about \$53,180. An eye doctor goes to school for 7 years. Select the choice that most likely shows the typical annual salary of an eye doctor.

- a. \$29,140
- b. \$48,850
- c. \$50,960
- d. \$111,790



Lesson 1: Explore the relationship between human capital and income.

Name _____

Date _____

1. Anna went to school for one year to become an optician. Before getting a job, she completed an additional year of training and passed an exam. How might her salary compare to another optician with the same amount of experience as Anna? Explain your thinking.
 2. David has been working as an air conditioning technician for 20 years. He is an expert at repairing a certain type of air conditioner commonly used in the city where he works. How might his salary compare to that of the typical air conditioning technician? Explain your thinking.
 3. Jayne just finished her 4-year biomedical engineer degree and got a job at a biomedical company. If she works at her job for 10 years, predict what might happen to her salary.



4. An architect goes to school for 5 years and typically earns a salary of \$80,750. A judge usually goes to school for 7 years. Select the choice that most likely shows the typical salary of a judge.
- a. \$35,960
 - b. \$56,340
 - c. \$68,760
 - d. \$133,840
5. Rema is an architect who just finished her fifth year of school and got her first job. How might her salary compare to the typical salary of an architect who has been working for 6 years? Explain your thinking.