

Lesson Description	Students will analyze families' finances to identify assets and liabilities. They will use this information to calculate the families' net worth and learn the benefits of having a positive net worth. Students will work with other students to devise a plan to increase the families' net worth.
Texas Essential Knowledge and Skills (Target standards)	<ul style="list-style-type: none"> • PFL Math 7.13C: create and organize a financial assets and liabilities record and construct a net worth statement
Texas Essential Knowledge and Skills (Prerequisite standards)	<ul style="list-style-type: none"> • Math 7.1: Mathematical Process Standards • Math 7.3A: add, subtract, multiply, and divide rational numbers fluently • Math 7.3B: apply and extend previous understandings of operations to solve problems using addition, subtraction, multiplication, and division of rational numbers
National Standards (Supporting standards)	<ul style="list-style-type: none"> • CEE Using Credit 8.5: Various financial institutions and businesses make consumer loans and may charge different rates of interest. • CCSS Math: Standards for Mathematical Practices • CCSS Math 7.NS: Apply properties of operations as strategies to add and subtract rational numbers • CCSS Math 7.NS: Solve real-world and mathematical problems involving the four operations with rational numbers
CEE - Council for Economic Education	
CCSS - Common Core State Standards	
PFL Terms	<ul style="list-style-type: none"> • Assets • Liability • Net worth
Time Required	Two 45-minute class periods
Materials Required	<ul style="list-style-type: none"> • A copy of Visual 7.4-1a and 7.4-1b • A copy of Activity 7.4-1a for each student • A copy of Activity 7.4-1b for each group, print on blue paper and cut cards in advance • A copy of Activity 7.4-1c for each group, print on yellow paper and cut cards in advance • A copy of Activity 7.4-2a for each student • A copy of Activity 7.4-2b for half of the students • A copy of Activity 7.4-2c for half of the students

Procedure

- Engage**
1. Brainstorm with students about what it means for a family to be wealthy. (**Samples: large savings balance, expensive house, expensive cars, large investments balances, expensive vacations, owning expensive items**)
- Explore**
2. Display **Visual 7.4-1a**. Tell students that this visual shows what family A and family B own. Then read the family descriptions below.
 - Family A owns a 3 bedroom house valued at \$100,000 and one car. The home is furnished with modest furniture. The only valuable jewelry they own are wedding bands valued just under \$800. They have an emergency savings account, a college savings account and a retirement savings. They also have two credit cards.
 - Family B owns a 5 bedroom house valued at \$400,000, a car, and a SUV. The house is furnished with luxurious furniture. They also own a valuable piece of art and expensive jewelry. The family has a retirement savings and 6 credit cards.
 3. Have the students vote on which family they believe to be worth more (wealthier). Post the results on the board.
- Explain**
4. Lead a class discussion about net worth. Tell students that net worth is similar to wealth. It represents the value of what you own minus what you owe. Use the questions below to lead the discussion.
 - a. *Does it make you rich or wealthy to have a lot of things that cost a large amount? Why or why not? (Accept all responses.)*
 - b. *How do most people purchase expensive goods such as a house or car? (Most people will pay a small part in cash and get a loan for the remaining balance. A few people may be able to buy with cash.)*
 - c. *What does it mean to have debt? (Debt is the money you owe. If you borrow \$1000, your debt is \$1000. To get a loan is to borrow money.)*
 - d. *Is there something missing from Visual 7.3.1a? If we want to determine how much these families are worth, what are some other things we need to consider? Allow students to brainstorm with a partner before accepting any answers. (We don't know how much each family owes on each item they own. We don't know how much money they have in their savings. We don't know how much they owe on their credit card (credit card debt). We don't know the value of the cars or how much they owe.)*
- Explore**
5. Place students in groups of 3 – 4. Distribute a set of blue cards and yellow cards to each group. Distribute **Activity 7.4-1a** to each student.
 6. Display **Visual 7.4-1b**. Explain that assets are the things you own. Ask students to give an example of something Family A owns. (**house, car, savings account, furniture**) Liabilities are things you owe. Ask students to give an example of what Family A might owe. (**They**

may owe on their house. This is called a mortgage. They might owe money on their car or credit cards.) Explain that monthly expenses such as utilities, cell phone service, groceries are not included as a liability. Liabilities are only what are owed to a bank, credit union, or financial company. Net worth is the value of your assets minus your liabilities.

- Instruct students that the blue cards show the assets and liabilities for Family A. Remember that assets are what a family owns. Liabilities are what a family owes. Using the Net Worth Worksheet on **Activity 7.4-1a**, record Family A's assets and liabilities in the appropriate column. Then total each column. Finally use the net worth formula to calculate the family's net worth. Then use the yellow cards to calculate Family B's net worth.

Explain

- After students have completed activity, ask students to share their results and their answers to the questions on the bottom of **Activity 7.4-1a**.
 - Which items did not count as an asset or a liability? Why? (**Gym membership and child care. These are not payments to financial institutions. You cannot own a service.**)
 - Which family has the greatest net worth? (**Family A**)
 - Imagine that you worked for a bank. If both of the families requested a \$10,000 loan, which family do you think best qualifies for the loan? Explain. (**Since Family A has a greater net worth, they would best qualify for the loan. Family B has a large debt and may struggle paying for the loan.**)
- Explain that financial institutions often require for their customers to report their net worth when applying for large loans. It is used to evaluate the customers overall financial standing. If the customer has a positive net worth, he or she is more likely to get the loan and pay a lower loan rate.
 - What would cause a person to have a negative net worth? (**when liabilities greater than assets**)
 - What would cause a family to have a positive net worth? (**when assets greater than liabilities**)
 - Why is it important to have a positive net worth? (**easier to get a loan and lower interest rates**)
 - Other than net worth, what other criteria might a financial institution consider before lending money? (**Financial institutions want to know your credit history. Such as how much you owe in debt and are you making regular payments. You need a history that shows you are financially responsible.**)
 - Will net worth affect someone's credit score? (**Yes. A large debt reduces your credit score.**)

- f) *Many people try to reach the American Dream by purchasing everything they want. What are the consequences for buying everything you want? (You may not have emergency funds, savings for retirement, or college savings. If you lose your job, you won't have the means to pay back the loan(s).)*

Elaborate

10. Prepare students to do a Chalkboard Splash. For a Chalkboard Splash, the teacher poses a question to the class. The students write ideas on the board randomly. Students will then categorize the responses. Pose this question to class: *What could Family B do to increase their net worth? (Sample responses include: sell the car and purchase a lower cost model, pay down/off their credit card debt or other liabilities, sell the house and purchase a less expensive home, spend less on monthly expenses, get a second job or change to a higher paying job, sell artwork to a collector)* Once students have contributed to the Chalkboard Splash, ask students to analyze the ideas on the board and identify two possible categories for the ideas (increase income and decrease debt). Go through each item and have students identify if the item is increasing income (II) or decreasing debt (DD). To close, explain to students that it is important for families or individuals to regularly check their net worth. This will help them determine if they are spending too much and/or if there is enough savings for the future or emergencies.
11. Distribute **Activity 7.4-2a** to each student. Group students into pairs. Give each pair either **Activity 7.4-2b** or **Activity 7.4-2c**. Instruct pairs to complete the net worth worksheet for their assigned family.
12. When students have completed the net worth worksheet for their family, direct them to find another pair with the same family. Tell them to discuss and compare their results with the other pair. If they have any discrepancies, they should each present their case to the teacher. The teacher should clarify any misunderstandings.

Evaluate/End

13. To close this activity, pose the questions below to the students.
- How many of you had a family that had a positive net worth? (Half of the students should raise their hand.) What caused your family to have a positive net worth? (The assets were greater than the liabilities.)*
 - How many of you had a family that had a negative net worth? (Half of the students should raise their hand.) What caused your family to have a negative net worth? (The liabilities were greater than the assets.)*
 - Did your family report an item that was not an asset or liability? (cost of child care, tuition, cost of utilities) Why did these items not classify as an asset or liability? (The payment does not go to a financial institution. You cannot own these services.)*
14. Assign the students to write a letter explaining how assets and liabilities are used to create a net worth statement. Include the reason why a family should know their net worth and steps a family could take to change their net worth value.

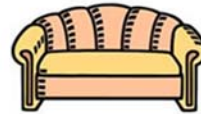
Extension

- Students may create a video for a Public Service Announcement to explain to adults how to determine their net worth Statement and its importance.

Visual 7.4-1

Family A – 2 adults and 2 children

Family B – 2 adults and 2 children



Activity 7.4-1a

Name _____ Class Period _____

	Net Worth Worksheet			
	Family A		Family B	
	Assets	Liabilities	Assets	Liabilities
House				
Autos				
Furniture				
Credit cards				
Bank accounts				
Retirement accounts				
Cash				
Loans				
Value of Jewelry and art				
TOTAL				

Family A: _____ — _____ = _____
 Total Assets Total Liabilities Net Worth

Family B: _____ — _____ = _____
 Total Assets Total Liabilities Net Worth

- Which items did not count as an asset or a liability? Why? _____

- Which family has the greatest net worth? _____
- Imagine that you worked for a bank. If both of the families requested a \$10,000 loan, which family do you think best qualifies for the loan? Explain. _____

Key 7.4-1a

Name _____ Class Period _____

	Net Worth Worksheet			
	Family A		Family B	
	Assets	Liabilities	Assets	Liabilities
House	\$100,000	\$18,000	\$400,000	\$350,000
Autos	\$22,000	\$0	\$79,000	\$37,000
Furniture	\$25,000	\$450	\$100,000	\$43,000
Credit cards		\$59		\$18,575
Bank accounts	\$20,000		\$1,500	
Retirement accounts	\$47,000		\$47,000	
Cash	\$50		\$300	
Value of jewelry and art	\$775	\$0	\$10,000	\$0
TOTAL	\$214,825	\$18,509	\$637,800	\$448,575

Family A: $\underline{\$214,825} - \underline{\$18,509} = \underline{\$196,316}$
 Total Assets Total Liabilities Net Worth

Family B: $\underline{\$637,800} - \underline{\$448,575} = \underline{\$189,225}$
 Total Assets Total Liabilities Net Worth

- Which items did not count as an asset or a liability? Why? **Gym membership and child care. These are not payments to financial institutions. You cannot own a service.**
- Which family has the greatest net worth? **Family A**
- Imagine that you worked for a bank. If both of the families requested a \$10,000 loan, which family do you think best qualifies for the loan? Explain. **Since Family A has a greater net worth, they would best qualify for the loan. Family B has a large debt and may struggle paying for the loan.**

Activity 7.4-1b

Blue cards

<p>Family A</p> <ul style="list-style-type: none"> • Own a \$100,000 house • Owe \$18,000 on mortgage 	<p>Family A</p> <ul style="list-style-type: none"> • Own a car valued at \$22,000 • Car is paid off. 	<p>Family A</p> <ul style="list-style-type: none"> • Own \$25,000 worth of furniture • Owe \$450 on furniture loan
<p>Family A</p> <ul style="list-style-type: none"> • Own jewelry valued at \$775 • Jewelry is paid off 	<p>Family A</p> <ul style="list-style-type: none"> • \$15,000 in emergency savings account at bank 	<p>Family A</p> <ul style="list-style-type: none"> • \$4,500 in college savings account at bank
<p>Family A</p> <ul style="list-style-type: none"> • \$47,000 in retirement account 	<p>Family A</p> <ul style="list-style-type: none"> • Owe \$59 on credit card 1 	<p>Family A</p> <ul style="list-style-type: none"> • Owe \$0 on credit card 2
<p>Family A</p> <ul style="list-style-type: none"> • \$500 in checking account at bank 	<p>Family A</p> <ul style="list-style-type: none"> • \$50 cash 	<p>Family A</p> <ul style="list-style-type: none"> • Pays \$500 a month for child care

Activity 7.4-1c

Yellow cards

<p>Family B</p> <ul style="list-style-type: none"> • Own a \$400,000 house • Owe \$350,000 on mortgage 	<p>Family B</p> <ul style="list-style-type: none"> • Own a car valued at \$35,000 • Owe \$22,000 on auto loan 	<p>Family B</p> <ul style="list-style-type: none"> • Own a SUV valued at \$44,000 • Owe \$15,000 on auto loan
<p>Family B</p> <ul style="list-style-type: none"> • Owns \$100,000 on furniture • Owes \$43,000 on furniture loan 	<p>Family B</p> <ul style="list-style-type: none"> • Owns \$10,000 in jewelry and art work • Owes \$0 	<p>Family B</p> <ul style="list-style-type: none"> • \$47,000 in Retirement account
<p>Family B</p> <ul style="list-style-type: none"> • Owe \$5200 on credit card 1 	<p>Family B</p> <ul style="list-style-type: none"> • Owe \$3,555 on credit card 2 	<p>Family B</p> <ul style="list-style-type: none"> • Owe \$2,000 on credit card 3
<p>Family B</p> <ul style="list-style-type: none"> • Owe \$120 on credit card 4 	<p>Family B</p> <ul style="list-style-type: none"> • Owe \$7,500 on credit card 5 	<p>Family B</p> <ul style="list-style-type: none"> • Owe \$200 on credit card 6
<p>Family B</p> <ul style="list-style-type: none"> • \$1,500 in checking account at bank 	<p>Family B</p> <ul style="list-style-type: none"> • \$300 in cash 	<p>Family B</p> <ul style="list-style-type: none"> • Pays \$75 monthly fee for gym membership

Visual 7.4-1b

Vocabulary**Assets**

**the things you own:
cash, bank accounts,
investments, house**

Liabilities

**the things you owe:
mortgage, car loan,
credit card balances**

Net Worth

The value of your assets minus your liabilities

Net Worth = Assets - Liabilities

Activity 7.4-2a

Name _____ Class Period _____

Finding the Net Worth

Directions: Your teacher will assign you a family. Use the information provided to you on this family to determine the assets, liabilities and calculate the net worth.

Net Worth Worksheet for _____			
Assets (Own)		Liabilities (Owe)	
Balance of all bank accounts		Home mortgage	
Balance of all retirement accounts		Auto loan(s)	
Cash		Credit card(s)	
Value of home		Student loan(s)	
Value of auto(s)		Other loan(s)	
Value of furniture and household items		Total Liabilities	
Value of jewelry, art, antiques, etc.			
Total Assets			

Net Worth = _____

- Which items did not count as an asset or a liability? _____
- Does this family have a positive or negative net worth? _____
- Determine three suggestions for this family to increase their net worth?

Activity 7.4-2b

Name _____

Class Period _____

Family 1

The family has two adults and two young children. Both parents work full time jobs; one child is in day care all day and the other child in first grade and in after-school care. They own a house and two cars and carry some credit card debt.

Complete the Net Worth Worksheet for this family. Remember that not all monthly expenses are liabilities.

1. The house is valued at \$95,000 with a mortgage balance of \$45,000.
2. First car is worth \$12,000. The family owes \$5,000 on this auto loan.
3. Second car is worth \$10,000 which is paid in full.
4. Child care costs are \$600 per month.
5. Retirement accounts are valued at \$15,000.
6. Balance on the credit cards total \$2,000.
7. Checking account has a balance of \$500.
8. Savings account has a balance of \$1200.
9. They have \$75 in cash.
10. The value of their furniture is approximately \$4500 which is paid in full.
11. The miscellaneous household items are valued at \$1200 which is paid in full.
12. Ms. Perez's jewelry is valued at \$900; these were paid with the credit card.

Activity 7.4-2c

Name _____ Class Period _____

Family 2

The family has one working parent, a stay-at-home parent and three children. Two of the children are in elementary school and the youngest child is in Pre-Kindergarten. They have a house, a car, a mini-van, and carry some credit card debt.

Complete the Net Worth Worksheet for this family. Remember that not all monthly expenses are liabilities.

1. The house is valued at \$89,000 with a mortgage balance of \$80,000.
2. The car is worth \$15,000. The family owes \$15,000 on this auto loan.
3. The mini-van is worth \$20,000. The family owes \$16,000 on this auto loan.
4. They financed new household furnishings valued at \$5,000. The family owes \$4500 on this loan.
5. They have \$15,000 in their retirement account.
6. They have \$1,500 in an emergency savings, \$1,000 in savings, \$500 in checking, and \$1500 in a CD.
7. They have \$200 in cash.
8. Balances on the credit cards total \$15,000.
9. The family pays \$500 per month for school loans; the current balance is \$25,000.
10. The family pays \$350 per month for Pre-Kindergarten tuition.
11. All of the children are on soccer teams which costs \$100 per month.

Key 7.4-2b

Name _____ Class Period _____

Finding the Net Worth

Directions: Your teacher will assign you a family. Use the information provided to you on this family to determine the assets, liabilities and calculate the net worth.

Net Worth Worksheet for <u>Family 1</u>			
Assets (Own)		Liabilities (Owe)	
Balance of all bank accounts	<u>1,700</u>	Home mortgage	<u>45,000</u>
Balance of all retirement accounts	<u>15,000</u>	Auto loan(s)	<u>5,000</u>
Cash	<u>75</u>	Credit card(s)	<u>2,000</u>
Value of home	<u>95,000</u>	Student loan(s)	<u>0</u>
Value of auto(s)	<u>22,000</u>	Other loan(s)	
Value of furniture and household items	<u>5,700</u>	Total Liabilities	<u>\$52,000</u>
Value of jewelry, art, antiques, etc.	<u>900</u>		
Total Assets	<u>\$140,375</u>		

Net Worth = **\$88,375**

- Which items did not count as an asset or a liability? **Cost of child care**
- Does this family have a positive or negative net worth? **Positive**
- Determine three suggestions for this family to increase their net worth? **Sample responses: pay off credit cards, pay off auto loan, increase savings**

Key 7.4-2c

Name _____

Class Period _____

Finding the Net Worth

Directions: Your teacher will assign you a family. Use the information provided to you on this family to determine the assets, liabilities and calculate the net worth.

Net Worth Worksheet for Family 2

Assets (Own)		Liabilities (Owe)	
Balance of all bank accounts	<u>4,500</u>	Home mortgage	<u>80,000</u>
Balance of all retirement accounts	<u>15,000</u>	Auto loan(s)	<u>31,000</u>
Cash	<u>200</u>	Credit card(s)	<u>15,000</u>
Value of home	<u>89,000</u>	Student loan(s)	<u>25,000</u>
Value of auto(s)	<u>35,000</u>	Other loan(s)	<u>4,500</u>
Value of furniture and household items	<u>5,000</u>	Total Liabilities	<u>\$155,500</u>
Value of jewelry, art, antiques, etc.			
Total Assets	<u>\$148,700</u>		

Net Worth = -\$6,800

- Which items did not count as an asset or a liability? **Tuition and utilities**
- Does this family have a positive or negative net worth? **Negative net worth**
- Determine three suggestions for this family to increase their net worth? **Sample responses: pay off credit card balances, pay off car loans, pay off student loan, increase savings**