Paying for a Car

The BIG Idea

- How much will it cost to buy, operate, and insure a car?

AGENDA

Approx. 45 minutes

I. Warm Up (5 minutes)

II. What Can You Spend? (15 minutes)

III. Getting the Car Loan (15 minutes)

IV. Car Insurance Basics (5 minutes)

V. Wrap Up (5 minutes)

MATERIALS

- ❑ **STUDENT HANDBOOK PAGES:**
  - Student Handbook page 168, Expenses After High School
  - Student Handbook page 169, What's Your Car Budget?
  - Student Handbook page 170, How Much Can You Afford?
  - Student Handbook pages 171 and 172, Compare Car Loans
  - Student Handbook page 173, A Car in Your Future?
- ❑ **FACILITATOR PAGES:**
  - Facilitator Resource 1, What's Your Car Budget? Answer Key
  - Facilitator Resource 2, Compare Car Loans Answer Key
- ❑ Overhead projector
- ❑ Chart paper and markers
- ❑ Calculators (one per student)

OBJECTIVES

During this lesson, the student(s) will:

- Understand monthly expenses of owning a car.
- Understand how to determine a reasonable amount to pay for a car given a particular budget.
- Understand car loans and how to compare different loans.
- Understand car insurance and the factors that affect rates.

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OVERVIEW

In this lesson, students consider their expenses after high school graduation and predict whether they'll be able to afford the car they selected in last week's lesson. Next, they determine their "car budget" based on a certain income and expenses, and discuss some of the expenses of owning a car. Then they determine how much they can spend on car payments, and how that translates to the car's cost. They also review the variables that affect car loans and compare loans with different interest rates, loan terms, and down payments. Finally, they review the importance of car insurance and the factors that affect rates.

PREPARATION

- The following handouts need to be made into overhead transparencies or copied onto chart paper:
  - **Student Handbook page 168, Expenses After High School**
  - **Student Handbook page 169, What's Your Car Budget?**
  - **Student Handbook page 170, How Much Can You Afford?**
  - **Student Handbook pages 171 and 172, Compare Car Loans**
- List the day's **BIG IDEA** and activities on the board.
- List the day's vocabulary words and definitions on the board.

VOCABULARY

Annual percentage rate (APR): the amount of interest you pay over a year.

Collision coverage: insurance that pays for the repair or replacement of your car when the damage is caused by a collision.

Comprehensive coverage: insurance that pays for the repair or replacement of your car when the damage is caused by something *other than* a collision.

Coverage: protection against a loss, such as car or home damage.

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Credit rating: a score reflecting your credit history (a record of all the money you've borrowed and your payment history) that estimates your ability to repay money you borrow.

Interest: the fee paid for borrowing money; usually a percentage of the money borrowed.

Liability coverage: insurance that pays for injuries and property damage to the *other* car if you're at fault.

Loan term: the length of a loan, typically expressed in months.

Premium: a periodic payment made by a policyholder to the insurance company.

IMPLEMENTATION OPTIONS

For **Activity III, Student Handbook pages 171-172, Compare Car Loans,** you may wish to save time by assigning specific loan calculations to specific students or groups of students. (Example: row 1, loans A and B; row 2, loans C and D, etc.)

In **Activity V,** if time is short, you may wish to skip **Student Handbook page 173, A Car in Your Future?,** or assign it as homework.

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ACTIVITY STEPS

I. Warm Up (5 minutes)

1. Refer students to **Student Handbook page 168, Expenses After High School.** In this activity, they will imagine where they'll be after graduation, predict who will pay different expenses, and predict whether or not they will be able to afford the car they selected in last week's lesson.

2. **SAY SOMETHING LIKE**: Welcome back, everyone. This week we're going to continue the subject of buying cars. Last week you researched a car that would fit your needs (or desires!) after high school. This week, you'll be figuring out if you can afford that car given a certain budget. We're also going to talk about car loans and briefly discuss car insurance.

3. Briefly discuss **Student Handbook page 168, Expenses After High School**. Invite students to share what they predict will be their three biggest expenses. Then ask for a show of hands from those who predict they'll be able to afford the car they chose last week. How many don't think they'll be able to afford it?

II. What Can You Spend? (15 minutes)

1. **SAY SOMETHING LIKE**: Let's say you've researched the car you want to buy, you found one for a good price, you've taken it for a test drive, and you've pretty much fallen in love with it. But when you find out how much your car payment will be, you realize you wouldn't be able to pay your rent! This is why it's so important to figure out what you can afford *before* you go car shopping. So let's give ourselves a sample budget and see what we can afford.

2. Have students turn to **Student Handbook page 169, What's Your Car Budget?** and show an overhead of this page. Explain that in this activity, they will return to last week's scenario in which they're about to start their freshman year in college and need a car to commute to school. Depending on their math proficiency, you could have students work individually, in pairs, or walk through the worksheet calculations as a class.

3. Briefly review the "car budget" they calculated on the overhead. Everyone should end up with a car budget of $300.

4. **SAY SOMETHING LIKE**: Now, you might be thinking, $300 is a lot of money. Do I really want to spend it on a car? Do I really *need* a car? These are the questions you

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should *always* ask yourself before making any large purchase. For example, maybe you could carpool with a friend and help pay for gas. Or maybe there's a bus that goes right to your school. In the end, these options would cost a lot less. For this activity, let's say that carpooling and public transportation won't work with your schedule, especially since you have a part-time job at the campus bookstore. So after careful consideration, you've decided that buying a car is your best option.

5. **SAY SOMETHING LIKE**: Now that you have a monthly car budget, you might be thinking all that money will go towards car payments, right? Not so fast! There are a lot of expenses associated with owning a car. Who can name some?

   Write these down on chart paper, including the following expenses:
   - Gas
   - Insurance
   - Repairs
   - Maintenance (oil changes, etc.)

6. **SAY SOMETHING LIKE**: These costs are really dependent on the type of car you buy — typically, the more expensive the car, the more expensive it is to operate. Since we don't know yet how much we're spending on a car, here's a good rule of thumb: Operating expenses can be about one third (or .33) of the monthly cost of a car.

   Have students turn to their **Student Handbook page 170, How Much Can You Afford?** and use this formula to determine how much they should reserve for monthly operating expenses, then how much they can spend on monthly payments. (Answer: $201.)

7. **SAY SOMETHING LIKE**: Now that you've determined what you can spend on car payments every month, how do you figure out a realistic price for a car? This final price tag will depend on what kind of loan you can get. (Remember, the loan is the money you borrow to pay for the car.) We'll cover loans in more detail in a minute, but for now let's assume that our loan has a 5% interest rate, a term of 36-months, and you're able to make a $500 down payment.

8. **SAY SOMETHING LIKE**: Turn back to your **Student Handbook page 170, How Much Can You Afford?** and look at the chart in Part 2. This shows us how much you can spend on a car given your 36-month, 5% interest rate loan and $500 down payment. [Model this for students.] Once you know how much you can afford as a monthly car

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payment (shown on the bottom line), you can determine how much you can afford to pay for the car (shown on the line to the left.) For example, if you can afford a monthly car payment of $300, you can buy a $10,000 car.

If we have approximately $200 for car payments, about how much can we spend on a car? (Answer: About $7,000) How much could we spend on a car if we could double our monthly car payment to $400? (Answer: About $14,000)

III. Getting the Car Loan (15 minutes)

1. **SAY SOMETHING LIKE**: One of the most important steps in buying a car is shopping for and securing a car loan. After all, most people don't have $7,000 in their pockets (or in their bank accounts) to pay cash for a car. Instead, they need to borrow that money from a bank, car dealership, or credit union. The money they borrow is called a car loan.

2. **SAY SOMETHING LIKE**: Now, you might think that finding a car loan happens after you find the car you want. In fact, finding a car loan is the *first* thing you should do when you're thinking about buying a car. You should always talk to a lender *before* you ever set foot in a dealership. Lenders will look at your income and credit history and will often pre-approve you for a loan. That way, you can be sure about the amount you plan to spend on a car.

3. **SAY SOMETHING LIKE**: There are three main variables that affect how much you'll pay for your car loan. [Review these variables with the class.]:
   a. **Interest rate**: This is how financial institutions make money, by charging interest on their loans. (Remember, interest is what you're charged for borrowing money.) And like credit cards, the interest for car loans is expressed as the Annual Percentage Rate (APR). The higher the interest rate, the higher your monthly payments. This is a time when your credit rating really matters, because the better your rating, the better your interest rate. In fact, if your credit rating is poor, you could get turned down for the loan altogether.
   b. **Loan term**: This is the length of the loan, expressed in months. Car loans are typically between 36 and 60 months, or three and five years. The longer the term, the lower your payments, because you're spreading the payments out over a longer period. However, the longer you spread out the loan, the more interest you'll pay, too.
   c. **Down payment**: This is the money you pay in cash. The remainder is the amount of your loan. To get a loan, you usually need to make a down payment of between

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10 and 20% of the total price of the vehicle. The more you put down, the lower your monthly payments, and the less you'll pay in the end.

4. **SAY SOMETHING LIKE**: Let's see how much these three factors can affect your car loan. Please turn to your **Student Handbook page 171**, **Compare Car Loans**. In this activity, you're looking for a car loan to pay for a $7,000 car. The chart presents eight different loan options based on different interest rates, loan terms, and down payments.

   You'll find the monthly payment for each loan. Use this number to calculate the total amount you'll pay for each loan, then the final cost of the car with that loan.

   Ask students to predict which loan would be best by circling the letter of that loan.

   Review how to calculate the total loan amount: multiply the monthly payments by the number of months in the loan term. For example, if your monthly payment is $255.83 for a 24-month loan, the total loan amount is $6139.92. To calculate the final cost of the car, add your total loan amount to your down payment. So if you put $1400 down for the loan above, the final cost of the car would be $7,539.92.

5. Give students a few minutes to complete the chart on **Student Handbook page 171**, **Compare Car Loans** and then answer the questions listed on **Student Handbook page 172**.

6. When they've completed the chart, discuss questions 1-3 on **Student Handbook page 172**, **Compare Car Loans** as a class.

7. **SAY SOMETHING LIKE**: When the time comes to search for a car loan, don't be overwhelmed with all the options and go for the first one you find. As you saw in the activity, it's important to shop for the best deal. Many dealers offer financing too. They don't always have the best interest rates, but be sure to ask and compare theirs with other rates you've found.

8. **SAY SOMETHING LIKE**: Finally, you may need to call in some help from your parents when you shop for a car loan. If you don't have a job yet, or haven't established a credit history, you may need to ask your parents to co-sign the loan with you. This means that they accept legal and financial responsibility for the loan along with you.

IV. Car Insurance (5 minutes)

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1. **SAY SOMETHING LIKE**: No matter how careful you are, and especially if you're not careful, accidents happen. But nobody really expects one to happen to them. Like any insurance, car or auto insurance protects you when the unexpected happens. If you're in an accident or your car is stolen, auto insurance helps cover the cost. It also helps pay for other cars or other property that are damaged in an accident, and medical expenses for anyone who's hurt in an accident.

2. **SAY SOMETHING LIKE**: As you can imagine, car insurance is very important. It's also mandatory. I'll say this again: **Car insurance is not optional. It is mandatory for owning and driving a car.**

   It's also essential to have *enough* auto insurance. After all, paying for auto damage and medical bills can cost hundreds of thousands of dollars. Without insurance, a single accident could put you (or your parents) in a financial disaster.

3. **SAY SOMETHING LIKE**: There are several different types of coverage and you can decide how much you want of each one. Three basic types are:
   - **Liability insurance** pays for injuries and property damage to the *other* car if you're at fault; it does not pay for damages to your own car. *Everyone should have this type of insurance; in some states, it's required.*
   - **Collision insurance** pays for damage to *the car you're driving* in an accident.
   - **Comprehensive insurance** pays if your car is stolen or damaged in some way other than a collision, like theft, fire, or flood.

   You decide how much collision and comprehensive coverage you need to have. Some people with very old cars choose to have little or none of this coverage because it could end up costing more than it would cost to replace the car.

4. **SAY SOMETHING LIKE**: Now you can see why auto insurance is so important, right? Of course, it also costs money. You pay a premium for your policy each year. This premium is based on a number of factors.

   Write the following factors on the board or on chart paper. Then have students identify which ones they can control and which ones are out of their control.
   - The type of coverage you have
   - The amount of coverage you have
   - Your deductible: (The amount of money you must pay out of your own pocket before the company pays).

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- Age
- Gender
- Where you live
- Cost of your car
- Driving history
- How you'll use the car
- Credit history

5. **SAY SOMETHING LIKE**: It's also important to know that your premiums can change. What actions do you think could cause your premiums to increase? [Make a list on the board or chart paper. For example:
   - Accidents
   - Speeding tickets
   - DUI (driving under the influence)
   - Letting friends drive your car
   - Paying your premium late]

V. Wrap Up (5 minutes)

1. **SAY SOMETHING LIKE**: Before we end for the day, I'd like you to turn to your **Student Handbook page 173, A Car in Your Future?** Take a few minutes to think about your own needs and expenses after high school and answer these questions.

2. Have students share their answers. Ask for a show of hands from people who felt like they did not need a car and ask volunteers to describe their other transportation options. Then ask students to share one way that this lesson changed or confirmed their plans to buy a car.

3. **SAY SOMETHING LIKE**: Great job today, everyone. We covered a lot of important information in these past two lessons. While you might not remember all of it, I hope you'll come away with a better sense of how to prepare for big purchases in your future: consider your needs, determine your budget, and do your research!

   Next week, we'll continue the Money Matters unit, but turn to another big expense in your future: renting an apartment.

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What's Your Car Budget? Answer Key

Let's return to the scenario presented last week: You are about to start your freshman year in college. You'll be commuting to the local community college from home. Your room, board, and tuition are covered, but you will need to buy a car. You have your eye on one in particular, but now you need to figure out how much you can afford for car payments each month.

The place to start is with your budget. You'll have a part-time job at the campus bookstore, working 20 hours a week at $10/hour. You've also estimated your weekly expenses (see chart below). Use this information to determine your monthly budget (be sure to multiply weekly expenses by four). Whatever money you have leftover will be your "car budget."

	Subtotal
1. Net Monthly Income	
a) Gross Monthly Income (hourly rate X total weekly hours X 4)	**$__800____**
b) Deductions (30% of a, or 0.3 X a)	**$__240____**
c) Net Monthly Income (a – b = c)	**$__560____**
2. Monthly Expenses & Savings	
a) Food (lunch on campus; pizza out with friends) (Estimate: $25/week)	**$___25____**
b) Clothes & Entertainment (movies, sweatshirt) (Estimate: $20/week)	**$___20____**
c) Savings (for emergencies and unexpected expenses) (Estimate: $20/week)	**$___20____**
d) Total Weekly Expenses & Savings (a + b + c = d)	**$___65____**
e) Total Monthly Expenses & Savings (d x 4)	**$__260____**
3. Monthly Balance ("Car Budget") (income – expenses, or 1c – 2e)	**$__300___**

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Compare Car Loans Answer Key

You are buying a car for $7,000.00. Compare the car loans below, and see how the monthly payment varies based on *interest rate, loan term, and down payment*. Complete the chart by calculating the total loan amount of each loan, then the final cost of the car. When you've finished the chart, answer the questions on the next page.

Loan Number	**Interest rate**	**Loan Term**	**Down Payment**	**Monthly payment**	**Total Loan Amount** (monthly payment X months of loan)	**Final Car Cost** (total loan amount + down payment)
A	9%	24 months	20% $1400	$255.83	**$6139.92**	**$7539.92**
B	9%	36 months	20% $1400	$178.08	**$6410.88**	**$7810.88**
C	9%	24 months	10% $700	$287.81	**$6907.44**	**$7607.44**
D	9%	36 months	10% $1400	$200.34	**$7212.24**	**$8612.24**
E	5%	24 months	20% $1400	$245.68	**$5896.32**	**$7296.32**
F	5%	36 months	20% $1400	$167.84	**$6042.24**	**$7442.24**
G	5%	24 months	10% $700	$276.39	**$6633.36**	**$7333.36**
H	5%	36 months	10% $700	$188.82	**$6797.52**	**$7497.52**

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Expenses After High School

Imagine where you'll be a few months after graduation. If you think you'll be in college, will you be living in a dorm, an apartment, or commuting from home? If you're working, do you think you'll be living with your parents or will you have your own place? Of course, the biggest question is, who's paying your expenses? Take a look at the categories below and check who you think will be responsible for each expense.

Expenses	*(check one)*		
	I'll Pay	Family Will Pay	Student Loan or Financial Aid Will Pay
Housing (dorm, if going to college)			
Food			
Clothing			
Transportation			
Entertainment			
Tuition			
Books			
Savings/Emergency Fund			

1. Which three categories do you think will be the most expensive?

_____

_____

2. How much was the car you chose last week? Do you think you'll be able to afford it? Explain why or why not.

_____

_____

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What's Your Car Budget?

Let's return to the scenario presented last week: You are about to start your freshman year in college. You'll be commuting to the local community college from home. Your room, board, and tuition are covered, but you will need to buy a car. You have your eye on one in particular, but now you need to figure out how much you can afford for car payments each month.

The place to start is with your budget. You'll have a part-time job at the campus bookstore, working 20 hours a week at $10/hour. You've also estimated your weekly expenses (see chart below). Use this information to determine your monthly budget (be sure to multiply weekly expenses by four). Whatever money you have leftover will be your "car budget."

	Subtotal
1. Net Monthly Income	
a) Gross Monthly Income (hourly rate X total weekly hours X 4)	$_____
b) Deductions (30% of a, or 0.3 X a)	$_____
c) Net Monthly Income (a – b = c)	$_____
2. Monthly Expenses & Savings	
a) Food (lunch on campus; pizza out with friends) (Estimate: $25/week)	$_____
b) Clothes & Entertainment (movies, sweatshirt) (Estimate: $20/week)	$_____
c) Savings (for emergencies and unexpected expenses) (Estimate: $20/week)	$_____
d) Total Weekly Expenses & Savings (a + b + c = d)	$_____
e) Total Monthly Expenses & Savings (d x 4)	$_____
3. Monthly Balance ("Car Budget") (income – expenses, or 1c – 2e)	$_____

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How Much Can You Afford?

Part 1: Your Monthly Car Payments

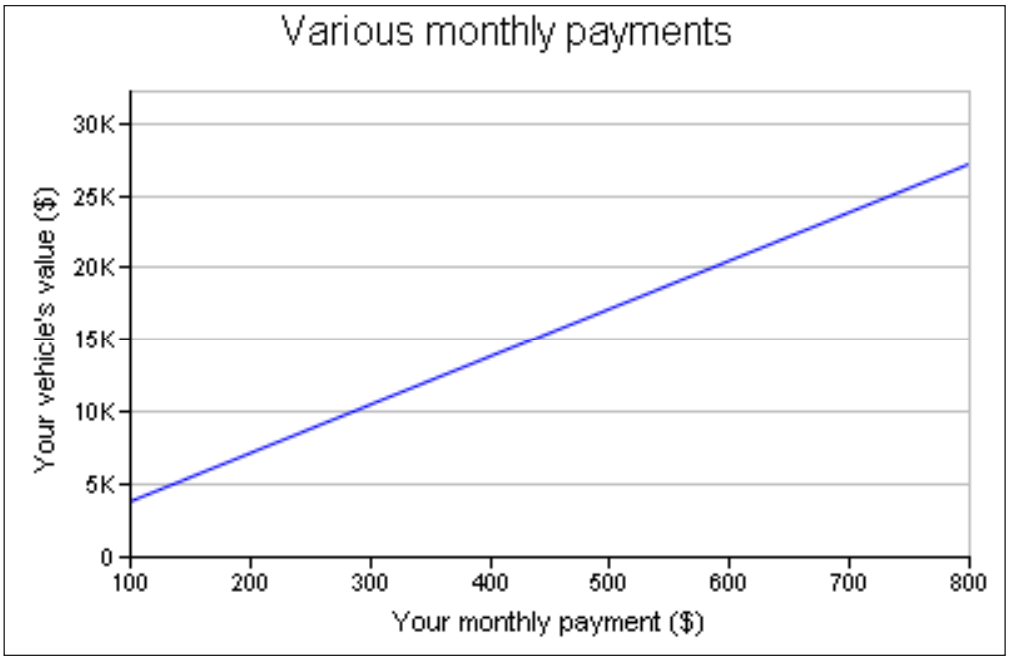
Now that you've figured out your "Car Budget," complete the chart below to figure out how much you actually have to spend on car payments – after all those operating expenses.

	Subtotal
a) Monthly Car Budget (from previous worksheet)	$_____
b) Operating Expenses (gas, maintenance, insurance) (33% of a, or 0.33 X a)	$_____
c) Monthly Balance for Car Payments (a – b = c)	$_____

Part 2: Your Car's Value

Now let's see what car value you can afford based on those monthly payments. Let's say you found a 36-month loan with a 5% interest rate, and you have $500 for a down payment. The chart below shows how your monthly payment translates to the car's value. Find your monthly payment at the bottom of the graph. Find your vehicle's value on the left.

About how much can you spend on a car? Answer: _____



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Compare Car Loans

You are buying a car for $7,000.00. Compare the car loans below, and see how the monthly payment varies based on *interest rate, loan term, and down payment*. Complete the chart by calculating the total loan amount of each loan, then the final cost of the car. When you've finished the chart, answer the questions on the next page.

Loan Number	**Interest rate**	**Loan Term**	**Down Payment**	**Monthly payment**	**Total Loan Amount** (monthly payment X months of loan)	**Final Car Cost** (total loan amount + down payment)
A	9%	24 months	20% $1400	$255.83		
B	9%	36 months	20% $1400	$178.08		
C	9%	24 months	10% $700	$287.81		
D	9%	36 months	10% $1400	$200.34		
E	5%	24 months	20% $1400	$245.68		
F	5%	36 months	20% $1400	$167.84		
G	5%	24 months	10% $700	$276.39		
H	5%	36 months	10% $700	$188.82		

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1. Compare two loans with the same interest rate and down payment, but different loan terms. Which one has the higher monthly payment? With which loan would you end up paying the most for the car?

_____

_____

_____

_____

2. Compare two loans with the same loan terms and down payment, but different interest rates. How much does the lower interest rate save on your monthly payment? How much less would you pay for the car overall?

_____

_____

_____

_____

3. Which car loan would end up costing you the most money in the end? The least amount of money? For each loan, what do you notice about its interest rate, loan term, and down payment?

_____

_____

_____

_____

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A Car in Your Future?

Take a few minutes to reflect on what you've learned today and consider your own transportation needs now and after you graduate from high school.

1. What are your current transportation needs? Will you need a car *before* you graduate from high school? Explain your answer.

   _____

   _____

   _____

2. Describe what will likely be your transportation needs after you graduate from high school. What options do you have for this transportation? Do you think you'll need a car? Why or why not?

   _____

   _____

   _____

3. How much money, if any, do you have for a down payment on a car? How much do you think you could set aside for a down payment each month? How much would that give you by next year (12 months from now)?

   _____

   _____

4. Name three transportation costs you can expect in addition to your monthly car payment.

   _____

   _____

5. Looking ahead to life after high school, estimate how much you can afford to spend on transportation each month. What portion of this would be needed for operating expenses if you owned a car?

   _____

   _____

   _____

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