PLANNING A BUDGET

Key concepts
Needs vs. wants, budgets, simple interest, savings accounts and paying yourself first

Summary
This lesson is geared for high school students with a focus on managing money after graduation. It will assist them in developing a budget as they either enter the workforce, join the armed forces or if they intend to go onto college. The lesson reviews trade-offs and priorities in order to prepare a budget.

Overview & Lesson Objectives
This lesson is intended for high school students in ninth through twelfth grades. The lesson teaches students the concept of budgeting and calculating simple interest on a savings account.

Students will be able to:
- Identify sources of income
- Identify monthly expenses
- Calculate simple interest
- Plan a monthly budget

Time Allocation:
15 – 20 Minute Prep
35 – 40 Minutes Engagement

Materials:
- Copies of Sample Budget (one per student),
- Copies of Blank Budget worksheet (one per student)
- Simple Interest Worksheet (one per student)

Lesson Begins: Setting the Stage

Background Builder #1: Have the students make the following t-chart on a piece of paper:

Needs	Wants
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

Ask students to complete the t-chart with 4-5 examples in each column. Remind them that a <u>need</u> is something that we must have to survive, and a <u>want</u> is something we would like to have. Discuss the results with the class. You may even want to make a t-chart on the board representing the students' most common needs and wants. Ask students to think of ways that they can get what they need and want (i.e. working and saving). Finally, tell students that saving is a good thing, and a plan or budget will help them achieve their goal and guarantee financial success.

State the Objective: Tell the students what they will be able to do upon conclusion of the lesson.

"At the end of this lesson, you will understand the purpose of budgeting and be able to create your own. You will also be able to calculate simple interest."

Lesson Procedures

Budgeting is the process of making your needs and wants fit with the money you have. It can be difficult at times, but it is the key to making sure you have your money under control.

Review the sample budget with students to demonstrate and clarify concepts.
Allow students time to work with a calculator and pencil to complete the attached budget worksheet.

Provide the following scenario:

You expect to receive $100 each month as an allowance or income from a part time job. Use your calculator and school lunch menu to determine how much money you would <u>need</u> to buy lunch at school every day for the current month. Allow students to copy the correct answer onto the budget worksheet.

You're saving for your own laptop and are putting aside $15/month. Is this a week when a friend is celebrating a birthday? You will need to buy a gift. Is there a new movie that you want to see with your friends? You purchase a new article of clothing. Add the following amounts together to see what your expenses will be.
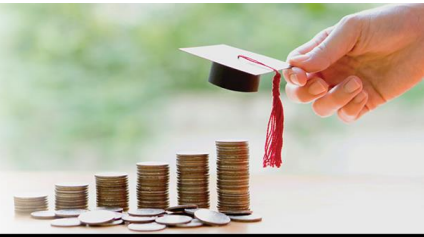
Let's say that you buy a Gift Card for your friend's birthday for $20. You went to the movies twice this month, and each time you bought a ticket you spent $7.00. You bought popcorn once, and it cost $3.50. You bought a new clothing item for $25. And you put aside the $15 towards your laptop. What is your expense total for these categories? You may have to write these amounts on the chalkboard in order to help the students to record them correctly. (Answer: $77.50 $14 for Entertainment/ $20 for Gifts/ $3.50 Snacks and $15 for the laptop savings) Allow students to copy the correct answer onto the budget sheet.

How much did you spend of your allowance or earnings? How can we figure that out? (Add the totals for each category.) Allow students to add the totals together and then call on someone to give an answer. If we want to know how much is <u>left over</u> from our original $100 a month earnings, what do we need to do? (Subtract expenses from income.) Your savings for this month would be what is left. When you look at how you spend your money, you should recognize that you have control over meeting your expenses. If you wanted to start saving more money, what spending could you change from this budget? Allow students to offer suggestions such as packing a lunch a few days a month, going to the movies only once, foregoing the clothes, etc.

> If time permits, you may want to allow students to create a monthly budget that reflects their actual financial situation.

Most banks offer savings accounts. A bank is the safest place to keep your money, and will give you an incentive that is called <u>interest</u>. Interest is money that you earn just by having money in a savings account. It is a percent of the total amount of money that you keep with the bank. The interest rate, the length of time and the amount of money in your account determines the amount of interest that you will receive from the bank.

(PLEASE WRITE THIS OUT VERY CLEARLY ON THE BOARD. KEEP ALL PERCENTS AS DECIMAL AMOUNTS SINCE STUDENTS WILL CALCULATE INTEREST USING THE DECIMAL CONVERSION.)

For example, if you save $100 for one year in an account with a 1% interest rate (write 0.01 on the board) you would have earned $1.00 for free as a thank you from the bank. Model how you arrived at this answer via the board and by using the calculator for computation.

Distribute worksheets (included in this file) and allow students to work on them independently. Circulate and help students as needed. When students have finished, review the answers and discuss how saving more money can earn more interest.

Lesson Closes

Ask students to clarify between needs and wants and how a budget can help them achieve their goals. Elicit from students that saving money in the bank is not only safe but profitable because they will earn interest. See the suggestion page for "Additional Engagement Opportunities/Resources", for additional ideas.

Additional Engagement Opportunities / Resources

Pair and Share: Group students into pairs and ask each pair to exchange two or three new things learned during the day's lesson. Call on select pairs to share with the whole class what has been learned.

Sample questions:
- What are some expenses you may have currently?
- What types of earnings do you gather?
- Define interest.
- What item would you be willing to save money for in order to make the purchase?
  - Where do you expect to get the money you'll save?
  - How much spending money will be available?
  - Are there items you'll need to forego in order to save enough money?
  - How long will it take you to save enough money for the item you want to buy?

Misinformation: Quote information from the day's lesson purposely erroneous. Call on various students to restate the information correctly.

Samples:

- A budget is not necessary to stay on track with expenses

- Wants and Needs are the same thing.

- *Interest* is what a Customer pays in order to have a savings account.

- Going to the movies with friends is a Need.

What's left out? Supply students with statements that have some information missing. This can be done verbally or it can be done on a board. Ask students to provide the missing information.

Samples:

- _____is money that you earn just by having money in a savings account.

  - *Answer is " interest"*

- A _____is something that we must have to survive, and a _____ is something we would like to have

  - *1ˢᵗ Answers is "need", and 2ⁿᵈ answer is " want"*

- Your monthly savings is what is left over when you subtract monthly expenses from monthly _____.

  - *Answer is "income"*

- Amusement park tickets, gas for your car and going out to eat are all examples of monthly _____.

  - *Answer is "expenses"*
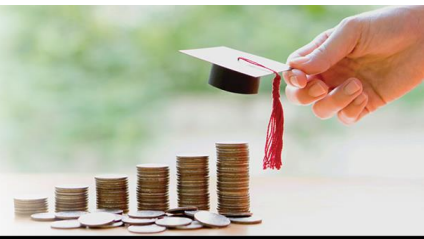
Educational Standards

National Council of Teachers of <u>Mathematics Principles and Standards for School Mathematics</u>, 2000

Number and Operations – (Students will) Understand meanings of operations and how they relate to one another.
Number and Operations – (Students will) Compute fluently and make reasonable estimates.
Algebra – (Students will) Understand patterns, relations, and functions.
Problem Solving – (Students will) Build new mathematical knowledge through problem solving.
Communication – (Students will) Use the language of mathematics to express mathematical ideas precisely.
Connections – (Students will) Recognize and use connections among mathematical ideas.
Representation – (Students will) Create and use representations to organize, record, and communicate mathematical ideas.

NJ Core Curriculum Content Standards for Personal Financial Literacy 2014:
Standard 9.1: 21st Century Life and Careers
    9.1 B. Money Management: 9.1.12.B.1, 9.1.12.B.3,
    9.1 D. Planning, Saving, and Investing: 9.1.12.D.5, 9.1.12.D.9
    9.1 E. Becoming a Critical Consumer: 9.1.12.E.2

National Standards in K – 12 Personal Finance Education (from Jump$tart Coalition) 2017:
Financial Decision Making:
    Standard 4, "Make criterion-based financial decisions by systematically considering alternatives and consequences."
Spending and Saving
    Standard 1, "Develop a plan for spending and saving."
Investing:
    Standard 1, "Explain how investing may build wealth and help meet financial goals."

National Content Standards in Economics (from Council for Economic Education) 2010:
Standard 1, Scarcity

Monthly budget worksheet

The following is an example of a monthly budget. You can use it to refer to as you plan your own budget.

INCOME/MONEY RECEIVED

Earnings:	$100.00
Allowance:	$20.00
Gifts:	$15.00
Other:	$ 0.00
TOTAL:	$135.00

EXPENSES/MONEY SPENT

Snacks/Lunch:	$30.00
Clothes:	$25.00
Gifts Bought:	$20.00
Entertainment:	$10.00
TOTAL:	$85.00

EXCESS/MONTHLY TOTAL

Income:		$135.00
Expenses:	-	$85.00
TOTAL (Savings):		$50.00

Blank Monthly budget worksheet

The following is monthly budget worksheet. You can use it as you plan your own budget.

INCOME/MONEY RECEIVED

Earnings: _____

Allowance: _____

Gifts: _____

Other: _____

TOTAL: _____

EXPENSES/MONEY SPENT

Snacks/Lunch: _____

Clothes: _____

Gifts Bought: _____

Entertainment :   _____

TOTAL: _____

EXCESS/MONTHLY TOTAL

Income: _____

Expenses: -   _____

TOTAL (Savings):   _____

INTEREST WORKSHEET

Name: _____ Date:_____

Use the formula I=PRT to solve the following problems.

1. John received $100 as a gift from his grandparents for his high school graduation. He decided to save it in the bank until he decided what he would do with the money. The interest rate on his savings account is 1.5%. How much interest will he earn the first year?

_____

2. Nicole received a check for $50 when she won a local essay contest. Her mother told her to save it for college. If it earns interest at a rate of 1%, how much money will Nicole have after one year?

_____

3. When Mary's new baby sister was born, her relatives gave her $25 to start a savings account. How much will Mary's sister have when she turns 1 if her money is kept in the bank earning 1% interest?

_____

4. Eduardo earned $520 over the year for doing chores around the house. He decided to take $200 to the bank where it will earn 1.5% interest. How much interest will he earn if he leaves it there for 1 year?

_____

5. When Lori and Jeff got married, they put $1,000 of their gifts into a savings account in the hopes of purchasing a bigger home sometime in the future. If they get a rate of 2%, how much will they have toward their home in 1 year?

_____

INTEREST WORKSHEET

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1. John received $100 as a gift from his grandparents for his high school graduation. He decided to save it in the bank until he decided what he would do with the money. The interest rate on his savings account is 1.5%. How much interest will he earn the first year?

    $1.50

2. Nicole received a check for $50 when she won a local essay contest. Her mother told her to save it for college. If it earns interest at a rate of 1%, how much money will Nicole have after one year?

    $50.50

3. When Mary's new baby sister was born, her relatives gave her $25 to start a savings account. How much will Mary's sister have when she turns 1 if her money is kept in the bank earning 1% interest?

    $25.25

4. Eduardo earned $520 over the year for doing chores around the house. He decided to take $200 to the bank where it will earn 1.5% interest. How much interest will he earn if he leaves it there for 1 year?

    $3.00

5. When Lori and Jeff got married, they put $1,000 of their gifts into a savings account in the hopes of purchasing a bigger home sometime in the future. If they get a rate of 2%, how much will they have toward their home in 1 year?

    $1,020.00

Sample Lunch Menu

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
1 Bean & Cheese Burrito with Mexican Rice and Corn	2 Creamy Buttered Penne Pasta Parmesan Bread with Seasonal Melon	3 Cheese Pizza or Peperoni Pizza with Celery, Carrots & Ranch Dressing	4 Chicken Burger with Potato Smiles and Baby Carrots	5 Egg Roll and Rice Meal with Edamame
8 Turkey Corn Dog Meal with Green Salad and Mandarin Oranges	9 Pasta Alfredo Meal Parmesan Bread with Peas	10 Cheese Pizza or Peperoni Pizza with Celery, Carrots & Ranch Dressing	11 Meat Ball Sub Sandwich with Corn and Seasonal Fruit	12 French Toast and Sausage with Seasonal Berries
15 Turkey Hot Dog Meal with Potato Fritters and Water Melon	16 Lasagna Meal with Parmesan Bread and Baby Carrots	17 Cheese Pizza or Peperoni Pizza with Celery, Carrots & Ranch Dressing	18 BBQ Chicken Slider Meal with Ranch Beans and Apple Sauce	19 Grilled Chicken Skewers with Rice and Pineapple
22 Cheese Burger Meal with Sweet Potato Fries And Pears	23 Creamy Cheese Macaroni Meal with Peas and Seasonal Melon	24 Cheese Pizza or Peperoni Pizza with Celery, Carrots & Ranch Dressing	25 Chicken Nuggets with Corn and Mandarin Oranges	26 Grilled Panini Cheese Sandwich with Tomato Soup and Apple Slices
29 Popcorn Chicken with Trail Mix Snacks and Melon	30 Pasta Marinara with Parmesan Bread And Baby Carrots	31 Cheese Pizza or Peperoni Pizza with Celery, Carrots & Ranch Dressing		

Pricing

Monday's	$2.00
Tuesday's	$3.00
Wednesday's	$2.00
Thursday's	$3.00
Friday's	$2.00