**Budgeting for the Future**

Scrapbooking Mini-Project

Algebra II

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Mini-Project Background**:

Our interdisciplinary team project has been focusing around local issues and what we can do to make a difference in our local community. One of our guest speakers from San Diego Rescue Mission talked about failure to plan for the future financially being one reason that there are many homeless youth in San Diego. In order to combat this problem, we will be looking into our own financial futures and calculate a rough estimate of our personal budget during our first years of independence. Keep in mind that this is a simplified summary of how to budget for the future, and not all steps will be something that you need to consider, just as there may be additional factors not on this list that you may also need to consider.

**Steps**:

1. Research: You will first do some background research to decide your dream college, job, car, house, etc.
2. Calculations: You will then go through the calculations to determine how much you will make from your job and how much you will spend on living expenses and loans to determine how to budget for your future.
3. Scrapbook: You will document each step of the process by creating a scrapbook that is creative and visually appealing.

Project Deadlines

|  |  |  |
| --- | --- | --- |
| **Assignment** | **Due Date** | **Complete?** |
| **Step 1** – all research must be complete and work cited must be finished in MLA format | Friday, February 21, 2014 |  |
| **Step 2** – all calculations must be finished and a final budget must be calculated | Friday, February 28, 2014 |  |
| **Step 3** – completed scrapbook with all the components from the checklist above | Friday, March 7, 2014 |  |

**Step 1: Research**

For this step, be sure to **add all of your sources** to your work cited section at the end of Step 1 so that you can include those in your scrapbook for Step 3.

A.) **Top 5 Colleges** you would like to attend:

|  |  |  |  |
| --- | --- | --- | --- |
| College | How much does tuition cost per year? | How much does housing/dining cost per year? | How much do textbooks cost per year? |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**Narrow down to top choice college**:

|  |  |  |  |
| --- | --- | --- | --- |
| College | Tuition | Housing/Dining | Textbooks |
|  |  |  |  |

B.) **Financial Aid** - talk to your family. Decide how much financial aid support you will need for college. Decide if you will apply for scholarships to defer some of the cost or if you will take out student loans.

Parent Signature: I have talked to my son/daughter about our family’s specific financial requirements for post-secondary education.

x\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

C.) **Top 5 Careers** you would like to have upon finishing school:

|  |  |  |  |
| --- | --- | --- | --- |
| Career | How many years of education beyond high school required? | Yearly income? (first year starting salary) | Average retirement age for career? |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**Narrow down to top choice career**:

|  |  |  |  |
| --- | --- | --- | --- |
| Career | Years of education after HS | Yearly income | Retirement age |
|  |  |  |  |

D.) **Top 5 Locations** you would like to live in (city/town):

|  |  |  |
| --- | --- | --- |
| City/town | How much does it cost to buy a home/apartment? | How much does it cost to rent a home/apartment (per month)? |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

**Narrow down to top choice location to live**:

|  |  |  |
| --- | --- | --- |
| City/town | Cost to buy | Cost to rent |
|  |  |  |

E.) **Living Expenses**:

**Car** - decide if you will want a new or used car, what make and model is most affordable. Find a price quote from a magazine, newspaper or online.

|  |  |  |  |
| --- | --- | --- | --- |
| Type of car | Cost of car | Gas mileage (mpg) | Cost of insurance (monthly) |
|  |  |  |  |

**Food** - ask to come to the grocery store with your family.

|  |  |  |  |
| --- | --- | --- | --- |
| How often do you buy groceries? (in one month) | How much do groceries cost (for *you* not your whole family - try to do your best to answer)? | How often do you eat out? (in one month) | How much does a meal out usually cost? |
|  |  |  |  |

**Utilities** - I’ve found average monthly prices in California for some basic utilities, but if you plan to live outside the state, you want to look up the costs on your own. Decide if you will want “luxury” utilities like internet and TV.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Water/Sewer | Electric | Gas | Trash | Internet | TV | Other? |
| $50 | $40 | $10 | $20 |  |  |  |

**Clothing** - whether you’re a shopaholic or not, everyone needs some clothing to wear (new shoes or a pair of jeans, etc.). Looking at your receipts for one month, determine how much you spend on clothing per month.

|  |  |
| --- | --- |
| Amount spent on clothing in an average month | $ |

**Fun** - everyone has a hobby that they love to do! I like to play soccer and paint in my free time. Some of the costs that are involved with soccer include: paying a fee to join the local soccer league, gas to get to games, equipment, etc. Some of the costs involved with painting include: paints, brushes, paint brush cleaner, canvases, art books, etc. For each of your hobbies, calculate approximately how much you spend monthly.

|  |  |  |
| --- | --- | --- |
| Description of hobby (feel free to add more rows!) | Things that contribute to the cost (like gas, equipment, etc.) | Total cost (in dollars) |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

**Works Cited** (for Step 1):

|  |
| --- |
|  |

**Step 2: Calculations**

You’ve just landed your dream job in your dream town after going to your dream college! You’re just starting off, and you need to begin budgeting how much money you will spend per month and take a look at how much money you can put into savings.

A.) **College Debt** - You will need to calculate how much debt you have accumulated during your time in college.

Fill out the table below using your responses from the research in Step 1.

|  |  |  |
| --- | --- | --- |
| Tuition (per year) | Housing/Dining (per year) | Textbooks (per year) |
|  |  |  |

Write an equation using x and y, where y is the total cost of education after high school and x is the number of years of education required after high school (should remain a variable, don’t plug in the value yet). Write that equation here:

|  |
| --- |
|  |

Now look at your research above, how many years of education after high school do you need for your career? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Plug this number in for x, and solve for y:

|  |
| --- |
| y = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

The value of y is the total amount that you plan to *spend* in college (for books, tuition, food, and housing). That’s a lot of debt! Many families try to plan for that debt by looking for more practical and affordable options (going to a city college for the first 2 years, applying for scholarships, applying for financial aid, etc.). In the next section, you will start to plan for the ways that you can prevent remaining in debt after college. If you feel uncomfortable disclosing financial information, you can feel free to contrive your own values to put in the table below.

B.) **Financial Aid**

Fill out the table below to the best of your ability.

|  |  |  |  |
| --- | --- | --- | --- |
| Cost of college (y from part A) | Total financial aid needed after talking to your family (between 0 and y) | Predicted amount received from scholarships | Predicted amount received from federal/state aid |
| $ | $ | $ | $ |

Sometimes federal and state aid along with scholarships is not enough to cover the cost of college. Some students still need to take out a student loan that they will need to pay back after completing their degree.

Looking at the table above, create a system of equations to determine how much you will need to take out in student loans to pay for college.

|  |
| --- |
| Total student loan amount needed: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

A traditional student loan will charge around 6% interest per year after graduation from college. Let’s say you want to pay off student loans in 5 years. How much will you need for to pay for student loans per year (with interest)? Show work.

|  |
| --- |
| student loan rate per year = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

How much will you need to pay for student loans per *month* (r)(with interest)? Show work.

|  |
| --- |
| student loan rate per *month* (r)= \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

C.) **Income** - you will calculate your yearly income from your job. Your first step will be to look at the starting salary for the first year of your job. Write that here: i = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Next, you will need to calculate how much of your income is taken by the government in taxes. Fill out the Form W-4 that can be found on Lesley’s DP. Go to the [IRS calculator](http://jobsearch.about.com/gi/o.htm?zi=1/XJ&zTi=1&sdn=jobsearch&cdn=careers&tm=8&f=10&tt=8&bt=4&bts=45&zu=http%3A//www.irs.gov/Individuals/IRS-Withholding-Calculator) on Lesley’s DP to determine how much the government will take out of your paycheck.

Yearly income tax: t = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Social Security taxes provide benefits for retirees and disabled workers. As of 2012, the tax rate for Social Security was 4.2% of the total income (*i*). Calculate how much the government takes for Social Security (*s*).

|  |
| --- |
| s = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Medicare is a federally administered system of health insurance for the elderly. As of 2012, the tax rate for Medicare is 1.45% of the total income (*i*). Calculate how much the government takes out for Medicare (*m*).

|  |
| --- |
| m = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Calculate how much total money (*total taxes*) is taken out of your yearly income for taxes (income tax, medicare, social security). Show work.

|  |
| --- |
| total taxes = t + s + mtotal taxes = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Calculate how much income (*spendable income*) you are left with after taxes are taken out. Show work.

|  |
| --- |
| spendable income = i - total taxesspendable income = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

**Retirement**: Most people don’t think about retirement when they are first out on their own. But the reality is, this is something that you should think about sooner than later. With increasing advances in health technology, the average life expectancy is increasing. This means you will need to have more funds to support yourself during retirement unless you still want to be working at the age of 90!

Retirement savings rule of thumb: you want to be able to have around 80% of your yearly salary available per year to spend during retirement, this is called replacement income. Calculate 80% of your yearly spendable income (replacement income). Show work.

|  |
| --- |
| replacement income = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

The average post-retirement life expectancy in the U.S. is 84 years old. Looking at your research, what is the average retirement age for someone in your career? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Write the equation for (and calculate) how many years you will need to plan for retirement.

|  |
| --- |
| years of retirement = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Now calculate how much you will need to save for retirement. You will want to multiply your replacement income by the years you will be retired. Show work.

|  |
| --- |
| amount needed for retirement = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Determine the age you will be when you begin your job. This will be dependent on how many years of college you will need for your career. Write that age here: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Calculate how many years will you be working in your career. Show work.

|  |
| --- |
| years of work = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Determine how much you should set aside each year in order to save for retirement.

|  |
| --- |
| yearly retirement fund = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Now let’s calculate how much you have left to spend after taxes and retirement are removed. Show work.

|  |
| --- |
| spendable income - yearly retirement fund = amount to spend per year = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Now calculate how much you have to spend per *month*. Show work.

|  |
| --- |
| amount to spend per month = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Remember that student loan that you had to take out for college? Let’s calculate how much you have left to spend per month after you subtract your student loan payments (r). Show work.

|  |
| --- |
| amount to spend per month = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

D.) **Location** - you will need to determine how much you will pay for a place to live.

When you’re starting off on your own, you will most likely be interested in renting a place instead of buying. What does it cost per month to rent a place in your city/town? (look at research) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Now calculate how much you have left to spend per *month* after subtracting the rent. Show work.

|  |
| --- |
| amount to spend per month = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

E.) **Living Expenses**

Car - That’s a beautiful car you’ve decided to buy. Now we need to explore some purchasing options and see what other expenses are associated with owning a car.

Payments - Let’s assume you’re not ready to drop a few thousand dollars on a car. So you decide you need to make payments on a car. You decide to take out a 36-month loan at 5% interest. Calculate how much money you will spend per month on your car payments at that rate. Show work.

|  |
| --- |
| Monthly car payment: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Insurance - You already looked up how much your insurance costs per month. Add this to your monthly car payment cost from above. Show work.

|  |
| --- |
| Insurance and car payment: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Gas - Now you want to drive your car. An average commute to work in the U.S. is 16 miles one-way. Calculate how many miles you will drive to and from work in one week. Add in trips to the store and to any recreational or fun activities. Finally calculate how many miles you will travel in one month. Show work.

|  |
| --- |
| Miles driven in one month: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

If gas costs $3.86 per gallon, how much will you spend in gas per month? Show work.

|  |
| --- |
| Amount spent on gas in one month: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Calculate total amount spent on a car in one month. Subtract this from your answer to Part D (amount left to spend). Show work.

|  |
| --- |
| Amount left to spend: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Food/Utilities/Clothing/Fun - each person will have a different way to calculate their other living expenses.

Practice writing your own checks to the water/sewer company, electric company, gas company, trash company, and internet/TV company in your location. Look up a company and fill out the checks to pay for your utilities.

In the space below, determine how much you will need to save per month for food, utilities, clothing, and fun based on your tables from the research in Step 1. Show work.

|  |
| --- |
| Total per month for food/utilities/clothing/fun: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Subtract this amount from the amount left to spend. Show work.

|  |
| --- |
| Amount left to spend: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Hopefully this is not a negative number. If it is, that means you are spending more money that you are making in income. If this is the case, you should consider looking at some of your “luxuries” to see if these are expenses you can do without.

If this is a positive number, congratulations! This is how much money you have left over at the end of the month after taxes, rent, loans, retirement savings, utilities, payments, food, clothing, and fun. Whatever money is left over can be put into a savings account so that you can save money for a rainy day. Maybe you want to take a trip someday, or maybe you need to fix the transmission on your car when it breaks. Either way, it is always good to keep some funds in a savings account that has high interest so that you can be making money on your money.

 If you don’t yet have a bank account, this is another good opportunity for you to reach out to a family member and see if you can set one up.

**Final Task**:

Set up a spreadsheet with your itemized expenses per month so you can budget where all of your money goes. This may be easiest in Excel or on a Google Spreadsheet.

**Step 3: Scrapbook Requirements**

You will be expected to maintain a scrapbook to document your process and manage your finances.

The **minimum length of the scrapbook is 13 pages** (for each of the sections below), but you can feel free to make some sections into more than one page if needed.

You may create a digital scrapbook or create a scrapbook by hand. If it is a digital scrapbook, it must be printed out before the due date. **You must turn in a physical scrapbook**.

If you need scrapbooking resources (for example, paper, glue, scissors, etc.), you must **see Lesley by 2/20** to request the resources that you need to check out.

Scrapbook Rubric

|  |  |
| --- | --- |
| **Requirement** | **Complete?** |
| Title Page |  |
| College |  |
| Financial Aid |  |
| Career |  |
| Taxes |  |
| Location |  |
| Car |  |
| Food |  |
| Utilities |  |
| Clothing/fun |  |
| Budget Plan |  |
| Conclusion |  |
| Work Cited |  |
| Professional Quality |  |
| No Spelling/Grammar Errors |  |
| Creative/Artistic |  |

|  |  |
| --- | --- |
|  | **Things to include in Scrapbook** |
| Title Page | * Project title, your name
 |
| College | * Pictures of first choice school, table comparing all data from other top schools, tuition cost, housing/dining cost, textbook cost
 |
| Financial Aid | * Detailed account of conversation with family about financial aid need for college, scholarship information, financial aid resources (federal, state, etc.)
 |
| Career | * Pictures of a company that hires people in your profession, table comparing all data from other careers, yearly starting salary, years of post-secondary education, retirement age
 |
| Taxes | * Copy of W-4 Form, description of Medicare tax, description of Social Security tax, calculations of total tax taken out of your paycheck
 |
| Location | * Advertisement for apartment with *price* (either online or in a newspaper/magazine), picture of apartment
 |
| Car | * Advertisement for car with *price* (either online or in a newspaper/magazine), picture of car, insurance quote
 |
| Food | * Coupons, shopping lists, grocery receipts
 |
| Utilities | * Price quotes for necessity utilities, price quotes for “luxury” utilities (TV, internet, etc.), copies of checks written for each utility
 |
| Clothing/Fun | * Shopping receipts, pictures of clothing/fun options, budget for hobbies, break down of shopping expenses
 |
| Budget Plan | * Include a yearly budget plan, monthly budget plan, weekly budget plan
 |
| Conclusion | * Reflection on your budget for the future
 |
| Works Cited | * MLA format
 |

