

# **REAL LIFE MATH PROJECT**

**GRADES 6-8**



# REAL LIFE MATH PROJECT

You have been working hard to save money for the past 5 years. Now, you are ready to buy a house and car and get on your own. The money you have saved is going to go towards the down payment of your house and car. You will complete each of the tasks below:

## Part 1- Career



Choose a career card. On the card is your yearly salary. That is the amount of money you will make in 1 year.

## Part 2- Taxes



Out of every persons paycheck comes taxes. Use the **expense chart** to find the amount of money that will be taken out of your check for each tax and how much money you will have remaining.

## Part 3- House



Where are you going to live? Based on your monthly income, determine which type of house you can afford.

## Part 4- Car



What are you going to drive? Based on your income, determine what kind of car you can afford to buy.

## Part 5- Food Shopping



Use the laptops to go food shopping at a local supermarket. Make a shopping list with the prices of each item to estimate the amount of money you will spend on food in a month.

## Part 6- Monthly budget



Use the **monthly budget chart** to determine how much money you will spend on various expenses each month.

## Part 7- Journal



You will keep a daily journal throughout this project.

## Part 8- Hand In:



Use the checklist to make sure you have completed all the requirements. Staple everything together and hand in your work to your teacher

# \$ \$ \$ \$ EXPENSE CHART \$ \$ \$ \$

## Taxes (Part 1)

a) Annual Income \_\_\_\_\_

b) Federal Tax \_\_\_\_\_

25% of annual income if you make \$36,900-\$89,350

28% of annual income if you make \$89,350-\$186,350

33% of annual income if you make \$186,350- \$405,100

c) State Tax \_\_\_\_\_

d) Local Tax \_\_\_\_\_ (Estimate to be 2.45% of annual income )

e) Healthcare \_\_\_\_\_ (Estimate to be 2% of annual income )

f) Add B, C, D and E \_\_\_\_\_

g) Subtract A- F. = Yearly Income \_\_\_\_\_

h) Divide G by 12 = Monthly Income \_\_\_\_\_



## House (Part 2)

a) Price of House \_\_\_\_\_

b) Down payment of 20% \_\_\_\_\_

c) Subtract A-B Money to borrow from the bank \_\_\_\_\_

d) Estimate interest- Principle (\$ borrowed) x rate (4.5%) x time (30 years)  
\_\_\_\_\_

e) Add the interest (D) to Money borrowed (C). \_\_\_\_\_

f) Divide step E by 360 to find your mortgage for 30 years \_\_\_\_\_



## Car (Part 3)

a) Price of Car \_\_\_\_\_

b) Down payment of 15% \_\_\_\_\_

c) Subtract A-B Money to borrow from the bank \_\_\_\_\_

d) Estimate interest- Principle (\$ borrowed) x rate (4.5%) x time (5 years)  
\_\_\_\_\_

e) Add the interest (D) to the money borrowed (C) \_\_\_\_\_

f) Divide step E by 60 to find your monthly car payment for 5 years  
\_\_\_\_\_



# FOOD SHOPPING LIST



Bread, Cereal, Rice and Pasta Food Group	Milk, Yogurt and Cheese Food Group
Item and Price	Item and Price
Vegetable Food Group	Fruit Food Group
Item and Price	Item and Price
Meat and Eggs Food Group	Snacks/Sweets/Drinks/Other
Item and Price	Item and Price

Final Total for the week \_\_\_\_\_

Final total for the month (weekly total x 4) \_\_\_\_\_



# MONTHLY BUDGET



- a) Monthly Income \_\_\_\_\_
- b) Mortgage: \_\_\_\_\_
- c) Car Payment \_\_\_\_\_
- d) Food: \_\_\_\_\_
- d) Electric/Gas/water \_\_\_\_\_  
(estimate to be 0.1% of the price of your house)
- f) Car and homeowners Insurance \_\_\_\_\_ \$180
- g) Other: \_\_\_\_\_
- h) Other: \_\_\_\_\_
- i) Other: \_\_\_\_\_
- j) Total Expenses \_\_\_\_\_  
(B+C+D+E+F+G+H+I)
- k) Savings \_\_\_\_\_ (A – J)

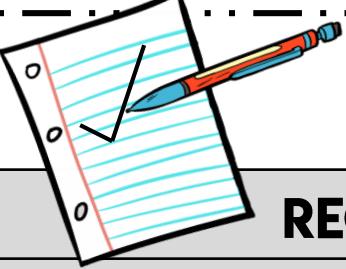
# JOURNAL #1

# JOURNAL #2

# JOURNAL #3

# JOURNAL #4

# JOURNAL #5



# CHECKLIST

REQUIREMENTS	POINTS
<b>Expense Chart</b>  Each part of the expense chart is worth 2 points. All answers must be correct to receive credit.	<b>40 points</b>
<b>House</b>  Your house must be in your price range.	<b>5 Points</b>
<b>Car</b>  Your car must be in your price range.	<b>5 points</b>
<b>Food Shopping</b>  Shopping List must include at least 2 items in each category, prices must be correct and the final total must be correct.	<b>16 points</b>
<b>Monthly Budget</b>  Each part of the monthly budget chart is worth 2 points. Answers must be correct to receive credit.	<b>22 points</b>
<b>Journal</b>  Each journal prompt is worth 2 points. All journal prompts must be completed neatly with at least 3 sentences per response.	<b>10 points</b>
<b>Neatness</b>  Project should be neat and presentable.	<b>2 points</b>
<b>FINAL SCORE ON PROJECT</b>	<b>_____ /100</b>

# CAREER CARDS

<b>Teacher</b> Yearly Salary- \$58,000 	<b>Pilot</b> Yearly Salary- \$110,000 
<b>Salesman</b> Yearly Salary- \$85,000 	<b>Architect</b> Yearly Salary- \$105,000 
<b>Construction Management</b> Yearly Salary- \$90,000 	<b>Nurse</b> Yearly Salary- \$97,000 
<b>Lawyer</b> Yearly Salary- \$112,000 	<b>Physician</b> Yearly Salary- \$175,000 
<b>Accountant</b> Yearly Salary- \$65,000 	<b>Veterinarian</b> Yearly Salary- \$88,000 
<b>Landscape Architect</b> Yearly Salary- \$73,000 	<b>Finance Advisor</b> Yearly Salary- \$112,000 

# Career Cards

**News Reporter**

Yearly Salary- \$68,000

**Chef**

Yearly Salary- \$72,000

**Judge**

Yearly Salary- \$174,000

**Dentist**

Yearly Salary- \$124,000

**Surgeon**

Yearly Salary- \$226,000

**Computer Technician**

Yearly Salary-\$54,000

**Scientist**

Yearly Salary-\$82,000

**Police Officer**

Yearly Salary-\$58,000

**Realtor**

Yearly Salary- 58,000

**Mechanical Engineer**

Yearly Salary- 88,000

**Hair Stylist**

Yearly Salary- 55,000

**Painter**

Yearly Salary- 60,000





**\$1,495,000**

Magnificent 5 bedroom, 3.5 bath home on 1 acre of property. The home has been completely renovated with an open floor plan so one room flows into the next.



**\$1,195,000**

Impressive home in a great town, located on 3 acres of property. You will fall in love with this charming 4 bedroom, 4 bathroom home. Beautiful finished basement, great for entertaining.



**\$1,097,000**

You will not believe the views from this spectacular 5 bedroom, 4.5 bath house. The finished basement is great for entertaining, plus you can enjoy the sunset view from the covered porch.



**\$960,000**

This stunning Colonial home has 4 bedrooms

and 2.5 baths. The kitchen has recently been remodeled with granite counter tops. You will love the built in pool in the backyard and stone fire pit.



**\$989,000**

This 5 bedroom 3.5 bath home is located in a great neighborhood on a quiet street. Major shopping stores are a short distance away. This home has lots of character and charm!



**\$959,000**

This stunning 5 bedroom, 3 bath home is located on 2 acres of professionally landscaped property. The home is charming inside and out!



**\$875,000**

This 4 bedroom, 2.5 bath home has a great location and charm! Close to the downtown area and within walking distance of the elementary school. Large backyard!



**\$825,000**

This striking 4 bedroom, 2.5 bath home rest on nearly 2 acres of park-like property. The inside is charming and classic. If you enjoy entertaining, you will love the large outdoor patio and BBQ area.



**\$759,000**

You will love this 5 bedroom, 3 bathroom, LAKEVIEW home! It has been remodeled from top to bottom on the inside.



**\$749,000**

This charming home is located in a great town with excellent schools. It is within walking distance of a downtown area and has a large backyard.



**\$729,000**

This immaculate 5 bedroom, 5 bath home is located in a prestigious gated community which offers access to a lake, tennis courts, and numerous sporting amenities. This inside of this home has stunning hardwood floors and the kitchen has recently been remodeled.



**\$645,000**

This 4 bedroom, 2.5 bath home is in a great location on a park-like property. The inside features a beautiful all year round sunroom.



**\$635,000**

This beautiful 6 bedroom, 2 bathroom house is on a large piece of property and within walking distance of all public schools.



**\$625,000**

This 4 bedroom, 2.5 bath home is situated on a park-like property in a corner lot. Beautiful open front porch. This inside has recently been renovated with hardwood floors.



**\$599,000**

Beautiful 3 bedroom, 2 bath home which features a 70 foot country porch. This home also has a guest cottage with one bedroom and a barn with 3 bays and tremendous storage.



**\$589,900**

3 bedroom, 2.5 bath home in a prime neighborhood. Virtually every room in this property has been renovated. Located in a great neighborhood on beautiful piece of property.



**\$569,000**

This 4 bedroom 3 bath home is situated on 2 acres of property. The home has a large patio with a hot tub. The yard backs to preserved land.



**\$559,000**

Lovely 4 bedroom, 2.5 bath home located at the end of a cul-de-sac with lake views. Close to a downtown area with many shops and restaurants.



**\$550,000**

Classic 3 bedroom, 1.5 bath Colonial home. Features an extra side lot that could be used as a side yard or to expand the home.



**\$529,900**

Stunning 4 bedroom, 3.5 bath home located on a quiet cul-de-sac in a great neighborhood. The large master suite features a Jacuzzi and sauna.



**\$519,000**

This 4 bedroom, 2.5 bath home is located on a professionally landscaped piece of property with mountain views and a salt water pool. The inside has beautiful hardwood floors and a renovated kitchen.



**\$499,000**

This is a charming 3 bedroom, 3.5 bath home. It features a rocking chair porch, hardwood floors and a finished basement.



**\$469,000**

Magnificent home on the lake! 3 bedrooms, 2 bathrooms, boat house and 2 docks. Beautiful views of the lake from inside.



**\$435,000**

Beautifully maintained 3 bedroom, 1.5 bath home on wooded property. The backyard features a pond with a waterfall.



**\$379,000**

Charming 3 bedroom, 2 bath home with a recently renovated kitchen. Spacious master bedroom and a Jacuzzi in the master bath. Located in a nice neighborhood on a quiet street.



**\$355,000**

This 3 bedroom, 3.5 bath home is in excellent condition and has been meticulously maintained. This home is located on a secluded piece of property with lots of property.



**\$339,000**

This 4 bedroom, 1 bath home is located on half an acre of partially wooded property. This home is located on a quiet street in a great neighborhood.



**\$299,000**

Lovely 3 bedroom, 1.5 bath home. Conveniently located near public transportation and downtown shopping and dining.



**\$289,000**

This 4 bedroom, 2 bath home has recently been renovated. It is only  $\frac{1}{2}$  a block away from a private beach and clubhouse.



**\$289,000**

This 3 bedroom, 2 bath home is located in a great neighborhood. Charming inside with hardwood floors and a recently updated kitchen.



**\$214,595**  
New Lamborghini  
Gallardo Convertible



**\$202,425**  
New Bentley  
Continental GT V8 S



**\$126,550**  
New Aston Martin  
V8 Vantage Coupe



**\$106,558**  
New Mercedes-Benz  
SL-Class Convertible



**\$89,200**  
New Land Rover  
Range Rover SUV



**\$86,074**  
New Cadillac Escalade  
SUV



**\$77,500**  
New Tesla Model S  
Sedan



**\$54,345**  
New Acura RLX  
Sedan



**\$50,244**  
New Jaguar XF  
Sedan



**\$41,107**  
New Nisan 370Z  
NISMO



**\$42,853**  
New BMW 1 Series  
Coupe



**\$47,805**  
New Ford F-250  
Super Duty SuperCab



**\$31,680**  
New Mazda6  
Sedan



**\$31,040**  
New Buick Regal  
Sedan



**\$32,811**  
New BMW 1 Series  
Coupe



**\$21,619**  
New Honda Accord  
Sedan



**\$23,433**  
New Ford Escape  
SUV



**\$25,317**  
New Subaru Forester



**\$23,433**  
New Hyundai Accent  
Sedan



**\$23,241**  
New Jeep Wrangler  
SUV



**\$19,350**  
Used Volkswagen  
Beetle Convertable



**\$19,400**  
Used Jeep Wrangler  
SUV



**\$17,149**  
New FIAT 500  
Hatchback



**\$13,445**  
New smart fortwo  
Hatchback



**\$9,995**  
Used MINI Cooper  
Hatchback



**\$9,995**  
Used Honda Civic  
Sedan



**\$9,800**  
Used Toyota Camry  
Sedan



**\$9,751**  
Used Ford Fusion  
Sedan



**\$6,995**  
Used Dodge Grand  
Caravan Minivan



**\$5,995**  
Used Kia Rio Sedan

# **TEACHER LESSON PLAN FOR PROJECT**



# **Day 1**

## **Prepare the following:**

- Edit the expense chart with your states tax breakdown.
- Print the student packet, pages 1-9. Make enough copies so each student has their own packet.
- Print one copy of the career cards, pages 10 and 11. Then, cut out the cards and place them in a container.

## **Vocabulary:**

- Annual salary, income, tax, yearly income, monthly income, healthcare

## **Introduction:**

- On the front board, display journal prompt #1 (page 38). Have students respond to the journal prompt in their packet on the Journal Prompt #1 space. When students are finished writing, have them share their responses with the class.

## **Mini Lesson:**

- Discuss the vocabulary with the students. Have students share what they know and go over what each word means. Write the vocabulary words and definitions on the board so students can refer to them throughout the day. Review how to find the percent of a number.

## **Activity**

- Have students pick a job from the container. (Recollect job cards if you will be using them again with another class).
- Once all students have a job, have them write their annual salary on the top of the expense chart. Explain to students what tax brackets are. Have students choose the tax bracket that they fall into based on their salary and then calculate their federal tax. Students will do the same to calculate state tax, local tax and healthcare. Last, students will complete the Expense Chart to find their monthly income.
- If some students finish early, they can help others who are struggling. Also, students who are finished can pair up and check each others work.

## **Closure**

- Have students think, pair, share: What is one thing you learned from today's lesson that you did not know before?

## **Day 2**

### **Prepare the following:**

- Print and cut the homes (pages 12-21) so each house is on one piece of paper. Then, tape the houses around half of your classroom.

### **Vocabulary**

- Down payment, mortgage, interest

### **Introduction**

- On the front board, display journal prompt #2 (page 39). Have students respond to the journal prompt in their packet on the Journal Prompt #2 space. When students are finished writing, have them share their responses with the class.

### **Mini Lesson**

- Discuss the vocabulary with the students. Have students share what they know and go over what each word means. Write the vocabulary words and definitions on the board so students can refer to them throughout the day. Review how to find the percent of a number if needed.

### **Activity**

- Have students look at their monthly salary and think about what they can afford for a mortgage each month. Remind students that they will have other expenses other than a mortgage, so they need to keep that in mind when picking their home. Also, students must use pencil because they may need to erase their work once they calculate their homes mortgage if it is out of their price range. Explain to students that they will be walking around the room to find the house they would like to purchase. More than one student can have the same home. Once they choose a house, they will follow the steps on the expense chart to see what their mortgage will be. When a student is finished, they will partner up with another student who is finished to check each others work.

### **Closure**

- Have students think, pair, share: What is one thing you learned from today's lesson that you did not know before?

## **Day 3**

### **Prepare the following:**

- Print and cut the cars (pages 22-31) so each car is on one piece of paper. Then, tape the cars around the other half of your classroom (homes are on the other half). Keep homes and cars posted for the remainder of the project in case a student is absent and needs to catch up on that part of the project.

### **Vocabulary**

- Down payment, monthly payment, interest

### **Introduction**

- On the front board, display journal prompt #3 (page 40). Have students respond to the journal prompt in their packet on the Journal Prompt #3 space. When students are finished writing, have them share their responses with the class.

### **Mini Lesson**

- Discuss the vocabulary with the students. Have students review down payment and interest. Go over monthly payment and discuss how it compares to a mortgage. Write the vocabulary words and definitions on the board so students can refer to them throughout the day. Review how to find the percent of a number if needed.

### **Activity**

- Have students look at their monthly salary and mortgage and think about what they could afford for a car payment each month. Remind students that they still have other expenses to think about each month so they need to keep that in mind when picking their car. Also, students must use pencil since they may need to erase their work once they calculate their car payment if the car is out of their price range. Explain to students that they will be walking around the room to find the car they would like to purchase. More than one student can have the same car. Once they choose a car, they will follow the steps on the expense chart to see what their monthly payment would be. When a student is finished, they will partner up with another student who is finished to check each others work.

### **Closure**

- Have students think, pair, share: What is one thing you learned from today's lesson that you did not know before?

## **Day 4**

### **Prepare the following:**

- Arrange for students to have access to laptops or a computer lab.
- Find a food shopping website that you would like students to use when they go grocery shopping (if computers are not accessible, most grocery stores have free catalogs available at the entrance).

### **Introduction**

- On the front board, display journal prompt #4 (page 41). Have students respond to the journal prompt in their packet on the Journal Prompt #4 space. When students are finished writing, have them share their responses with the class.

### **Activity**

- Show students how to access a food shopping website of your choice. Have students complete the shopping list by searching for a food item and writing down the name of the item and price. Once students have at least 2 items in each food group, they will find the total and will then multiply the answer by four to estimate the amount they would spend on food each month.

### **Closure**

- Have students think, pair, share: What is one thing you learned from today's lesson that you did not know before?

## **Day 5**

### **Vocabulary**

- Budget

### **Introduction**

- On the front board, display journal prompt #5 (page 42). Have students respond to the journal prompt in their packet on the Journal Prompt #5 space. When students are finished writing, have them share their responses with the class.

### **Mini Lesson**

- Discuss the vocabulary with the students. Have students share what they know and go over what a budget is. Write the vocabulary word and definition on the board so students can refer to it throughout the day.

### **Activity**

- Have students fill out mortgage, car payment, and food on the Monthly Budget sheet (page 5). Then, have students estimate electric/gas/water by finding 1% of the price of their house. All students will pay \$180 for car and homeowners insurance. In the other categories, students can calculate other monthly expenses of their choice such as movies, dinner, clothes, cell phone, etc. Finally, students will complete the last two steps on the budget chart to calculate the amount of money they have left for savings. When a student is finished they will partner up with another student who is finished to check each others work.

### **Closure**

- Have students think, pair, share: What is one thing you learned from today's lesson that you did not know before?



# JOURNAL #1

What do you want to be  
when you grow up? Why  
do you want that job?



# JOURNAL #2

What should you  
consider before you  
purchase a house?



# JOURNAL #3

What should you  
consider before you  
purchase a car?





## JOURNAL #4

Estimate the amount of  
money you would  
spend on food each  
month for yourself.

Explain how you  
arrived at your answer.

# JOURNAL #5

If you do not spend all of the money you make in a month, you can put it in a savings account. Over time, the savings account will accumulate more and more money.

Do you think it is important to save money? Why?

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