



Lesson Title: It's Time to Grub Up!

Duration: 2 -45 minute class periods

Overview: Problem solving activity focusing on the job of a fishing vessel's galley cook. Students demonstrate math skills to create a grub list within a predetermined budget while also comparing prices from local grocery stores in order to make the most economical choices.

Content Area: Math

Standards: *Math 4.NBT: 3.* Solve multi-step word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding **4.** Fluently add and subtract multi-digit whole numbers using the standard algorithm. **5.** Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations.

Objectives: Students will learn how a galley cook must plan ahead for a trip, primarily the ordering of food and other provisions preparing for approximately two weeks at sea within a predetermined budget. In addition students will also practice comparing prices, and making the best economic choices.

NBFHC Resources: "It's Time to Grub Up!" Assignment
Student Grub List (blank)
"It's Time to Grub Up!" Teacher Notes

Materials: Blank Grub List
Local Grocery Store Fliers (print or online)
Calculator

Activator: Ask students about their household food budgets and choices.
(Grocery store prices, weekly sales, household food budgets, etc)
Discussion questions included with the activity sheet.
Brainstorm a grub list with the class on the board.

Assessment: Check student work (grub list) for correct computations.

Suggested Answers: See teacher notes provided

Extension: Draw conclusions: How the students' balances within the predetermined budget? Whose balances were over or under budget? Who was the closest? Who saved the most money?



Name: _____ Date: _____

It's Time to Grub Up!



*Word Bank

Crew- a group of people who work on a boat.

Galley- the kitchen on board a boat.

Grub- Food

When a fishing boat prepares to go out to sea, they must be sure to have enough food on board. One job of the ***galley** cook is to plan ahead for the crew's meals and to make up the ***grub** list or grocery list. The grub is usually delivered to the boat in the morning before the boat leaves, and the bill is paid for after the boat returns and has sold its' catch. ***Crews** want to get the most for their money so they sometimes buy groceries from different stores, depending on the prices.

- How much does your household spend on weekly groceries?
- How many meals do you think a fishing boat crew will eat during two weeks out to sea?
- How much do you think a typical grub bill would cost?

Student Task:

Imagine that you are the galley cook on the fishing vessel. You will have a crew of seven for fourteen days, eating three meals a day plus snacks. You must create a grub list using local grocery store fliers (look in newspapers or online) to help with prices. Remember, you want to get the most for your money but your crew can't go hungry. You have a budget of \$1,800.00 for this fishing trip, try not to go over that amount!



Name: _____ Date: _____

It's Time to Grub Up!

Create a grub list for your boat below:

Fruits & Vegetables	\$	Meats	\$	Eggs & Dairy	\$	Bread & Cereal	\$
Drinks	\$	Snacks	\$	Canned & Frozen	\$	Other	\$
Total \$		Total \$		Total \$		Total \$	
	1		2		3		4

Hint: For "total balance", add the totals of columns 1+2+3+4 Total Balance Due \$ _____

Budget Amount: \$1,800.00

Did you stay within your budget? Yes or No

If not how much over-budget is your grub bill? _____



Name: Teacher Notes Date: _____

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- How much does your household spend on weekly groceries? **Answers will vary**
- How many meals do you think a fishing boat crew will eat during two weeks out to sea? **3 meals for 7 men =21 meals a day, 21meals a day for a week=147 meals, multiply by two for two weeks worth of meals (294 meals)**
- What do you think a typical grub bill would cost? **Answers will vary**

Activity

Imagine that you are the galley cook on the fishing vessel. You will have a crew of seven for fourteen days, eating three meals a day plus snacks. **Figure out the number of meals per day, per person, per week then two weeks with the students.** You must create a grub list using your local grocery store fliers (look in newspapers) to help with prices. **Students have a budget of \$1,800.00.**



Name: _____ Date: _____

It's Time to Grub Up!

Create a grub list for your boat below:

This is an excerpt from a local fishing vessel's grub list

Fruits & Vegetables	\$	Meats & Fish	\$	Eggs & Dairy	\$	Bread & Cereal	\$
10lbs Potatoes	\$20	Corned Beef	\$ 20	Cheese	\$ 30	Bread, White	\$ 31
Strawberries	\$20	Spam	\$ 14	Cream	\$ 5	Bread, Wheat	\$ 15
Apples	\$20	Tuna	\$ 16	12 Doz. Eggs	\$ 42	Bread, French	\$ 6
Bananas	\$ 5	Bacon	\$107	4 Racks Milk	\$ 12	Bread, Portuguese	\$ 4
Peaches	\$12	Chicken	\$ 35	4 Ice Cream	\$ 20	Rolls, Hamburger	\$ 5
Plums	\$ 6	Chourico	\$ 30	Sour Cream	\$ 5	Rolls, Hot Dog	\$ 5
Carrots	\$ 2	Hot Dogs	\$ 23			Rolls, Portuguese	\$ 6
Celery	\$ 2	Hamburger	\$ 67			2 Corn Flakes	\$ 6
Cucumbers	\$ 4	Pork Chops	\$ 25			2 Choc. Puffs	\$ 8
Let/Tom/Onions	\$20	Roast Beef	\$ 12			2 Corn Puffs	\$ 8
		Bologna	\$ 6			2 Raisin Bran	\$ 7
		Ham	\$ 10			2 Crisped Rice	\$ 7
		Steak	\$125				
Drinks	\$111	Snacks	\$490	Canned & Frozen	\$114	Other	\$108
8/24 Cola	\$104	Cookies	\$ 42	Peanut Butter	\$ 13	Scallop Bags	\$310
4/24 Ice Tea	\$ 38	Corn Chips	\$ 5	Strawberry Jell	\$ 12	Twist Ties	\$ 15
4/6gal. Water	\$ 32	Potato Chips	\$ 15	Spaghetti Sauce	\$ 20	Soap	\$ 20
12/24 Soda	\$240	Crackers	\$ 10	Beef Stew	\$ 30	Box Knives	\$ 45
6/48oz Cran.J.	\$ 20	Ass't Junk	\$ 30	Lasagna	\$ 30	Spray Cleaner	\$ 10
6/48oz CranapJ.	\$ 20			Sausage Patties	\$ 31	Alcohol	\$ 2
2/39oz Coffee	\$ 50			8lbs French Frie	\$ 23	Peroxide	\$ 1
						Shampoo	\$ 12
						Toothpaste	\$ 12
						Aspirin	\$ 20
Total \$	\$504	Total \$	\$102	Total \$	\$139	Total \$	\$447

1

2

3

4

Total Balance \$2,015