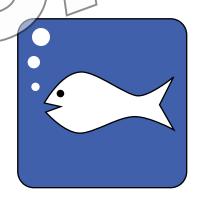
Simply Charlotte Mason Presents

# YOUR BUSINES\$

MATH SERIES



## Pet Store Student Kit

A fun way to practice math and learn business skills! by Sonya Shafer









Your Business Math Series is a fun and "living math" kit that reinforces math and business skills! Use your math knowledge to keep your very own store running and, hopefully, make a profit. But there are also some surprises along the way!

**Fun**—Choose from a pet store full of fur and fish, a book store that carries the classic living books, or a sports store that caters to family fun.

"Living" Math—Learn to write checks, figure sales tax, pay bills, and keep a bank account ledger current, all while practicing basic skills like addition, subtraction, and multiplication.

*Easy to Use*—Conversational step-by-step instructions lead you through your various tasks for each business "month." Additional Teaching Tips and answers in the FREE 56-page teacher book.

**Exciting**—Unexpected surprises appear from Chance cards that you select at random!

*Flexible*—Complete the kit in just a few weeks or use it all school year. You choose your own pace.

**Effective**—It's fun to do the math when you're working on your very own store's success in a fun game-like approach.

**Comprehensive**—An additional practice section is provided in case you need more help on any skill used in Your Business Math Series.



## Pet Store Student Kit

by Sonya Shafer

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## **Grand Opening!**

It is January, and your store is open for business!

simplycharlottemason.com

### 1. Fill Orders

Here are your January orders. Fill out an Order Form for each customer by writing in the customer's name and the quantities he or she ordered, and then multiplying to calculate each item's Extended Price. Add all the Extended Prices and write that sum in the Subtotal box.

### **ORDERS**

Mr. Baker—
2 guinea pigs for classroom
1 cage, 2 bags litter, 1 box food

Mrs. Udela—
1 puppy for daughter's birthday present
1 bag food, 1 leash, 1 collar, 1 chew toy

### **Pet Store Order Form**

Customer:	Price	Qty	Extended Price
Dogs	\$100.00		
Cats	\$100.00		
Chew toy	\$7.50		
Dog food (10 lb. bag)	\$11.75		
Cat food (10 lb. bag)	\$11.75		
Collar	\$5.00		
Leash	\$6.25		
Bed	\$12.50		
Hamsters	\$2.50		
Mice	\$2.50		
Guinea Pigs	\$7.50		
Small wire cage	\$14.00		
Cedar shavings litter (5 lb. bag)	\$1.75		
Rodent food	\$2.50		
Running wheel	\$4.25		
Fish	\$1.00		
Fish Aquarium Kit	\$10.00		
Fish food	\$1.75		
Parakeets	\$3.75		
Bird cage	\$20.00		
Bird food	\$5.00		
Rabbits	\$39.00		
Large wire cage	\$18.30		
Cedar shavings litter (10 lb. bag)	\$3.75		
Rabbit food	\$4.50		
Turtles	\$6.00		
Turtle Aquarium Kit	\$10.00		
Turtle food	\$4.25		
Ferrets	\$51.00		
Ferret Cage	\$20.00		
Litter (10 lb. bag)	\$3.75		
Ferret food	\$4.75		
Subtotal			
Sales Tax (6%)			
TOTAL			

### **Pet Store Order Form**

Customer:	Price	Qty	Extended Price
Dogs	\$100.00		
Cats	\$100.00		
Chew toy	\$7.50		
Dog food (10 lb. bag)	\$11.75		
Cat food (10 lb. bag)	\$11.75		
Collar	\$5.00		
Leash	\$6.25		
Bed	\$12.50		
Hamsters	\$2.50		
Mice	\$2.50		
Guinea Pigs	\$7.50		
Small wire cage	\$14.00		
Cedar shavings litter (5 lb. bag)	\$1.75		
Rodent food	\$2.50		
Running wheel	\$4.25		
Fish	\$1.00		
Fish Aquarium Kit	\$10.00		
Fish food	\$1.75		
Parakeets	\$3.75		
Bird cage	\$20.00		
Bird food	\$5.00		
Rabbits	\$39.00		
Large wire cage	\$18.30		
Cedar shavings litter (10 lb. bag)	\$3.75		
Rabbit food	\$4.50		
Turtles	\$6.00		
Turtle Aquarium Kit	\$10.00		
Turtle food	\$4.25		
Ferrets	\$51.00		
Ferret Cage	\$20.00		
Litter (10 lb. bag)	\$3.75		
Ferret food	\$4.75		
Subtotal			
Sales Tax (6%)			
TOTAL			

Now you get to figure sales tax! (Don't worry, you'll do fine.) According to your Order Form, the sales tax for your area is 6%, also written as .06 in decimal form. All you have to do is multiply the Subtotal by .06.

Don't let that decimal point and zero throw you. Just multiply the Subtotal by 6, then finish off with this little trick: count how many numerals are to the right of all decimal points.

Let's say you were multiplying \$45.20 x .06 sales tax. See both decimal points? You have four numerals to the right of both decimal points: the 2, the 0, and the 0, and 6. So in your answer, insert a decimal point where it will leave four numerals to the right also. Here's an example:

45.20 x .06 2.7120

Do you see how we left four numerals to the right of the decimal point in our answer? Now, since we use only two numbers for cents when we're talking about money, you can round the answer to \$2.71. Forget about that other 2 and 0 at the end. This customer needs to have \$2.71 sales tax added to her order.

Now you figure up the sales tax for your first order and write the tax amount in the Tax box on the Order Form. When you're sure that tax amount is correct, add it to the Subtotal to get the Total amount of your very first order.

Next, you can complete the Order Forms for your other customers, figuring their Subtotals, sales tax, and Totals.

## 2. Adjust Inventory Amounts

Congratulations! You've made some sales in your new store. But now your inventory amounts have changed since you sold some of your items. Go to your Inventory Tracker and find the items you sold. In the "# Sold" column record how many you sold of each of those items. (You can leave the other items blank for now.)

Next, figure out how many of those items you want to order for next month. Do you want to simply replace the same number that you sold? Do you want to have more of a certain item on hand next month, or fewer? You decide and write those numbers in the "# On Order" column of the items you want to order.

## 3. Additional In-Store Sales

Of course, you sold more during this month than just those orders you wrote on the Order Forms! Ask your parent to let you select an AISS (Additional In-Store Sales) card from the envelope. This is the amount you can add to your monthly sales . . . unless a Chance card tells you otherwise. Hang onto that card and go to number 4.

## 4. Chance Card

Ask your parent to let you select a Chance card from the envelope. Some of the Chance cards are good; some are not so good. Some might affect your AISS amount, your monthly bills, or other parts of Your Business. Take a chance and see what happens this month! (And remember, the Chance cards are just for fun!)

## 5. Pay Bills

Here are your bills for this month. You'll need to write checks to pay them. Be sure to make any adjustments from the Chance card that affects your bills, if necessary, this month.

If you're not sure how to write a check, your parent will show you. Pay close attention!

### **BILLS**

City Electric Company	\$5.50
Municipal Water and Sewer	\$7.45
American Gas Company	\$4.00
Store Rent, Inc.	\$50.00

The first four bills can be combined into one check made payable to "Your Business Landlord."

BizBell Telephone	\$9.75
Cleany Trash Collection	\$3.50

Your Pet Store PO Box 1000			1001
Anytown, YBMS	Date		
Pay to the Order of		\$	
			Dollars
Memo			
Your Pet Store PO Box 1000			1002
Anytown, YBMS	Date		
Pay to the		<b>.</b>	
Order of		\$	
			Dollars
Memo			
Your Pet Store			1003
PO Box 1000 Anytown, YBMS	Date		
Pay to the			
Order of		\$	
			Dollars
Memo			

## 6. Pay Sales Tax

Store owners collect sales tax from the customers on behalf of the state. Each month you need to give to the state government the sales tax money you've collected for it. We'll pretend that you pay the monthly sales tax on the state government's website, so you don't need to write a check for it. But you do need to add up the total sales tax you collected on your orders for the month. Check the orders you wrote and add all the sales tax amounts.

Sales Tax collected for Januar	y: \$
--------------------------------	-------

## 7. Advertising

Advertising can really help increase your sales. Determine how much money you want to spend on Advertising for next month. Your sales will increase according to how much you spend. Here's how it works:

Spend on	Increase AISS
Advertising	amount by
\$25	10%
\$50	20%
\$75	40%
\$100	50%

Circle the amount you want to spend on Advertising for next month.

## 8. Order Inventory

Now it's time to replace the items you sold this month. You'll need to use the Supplies Catalog on page 21 to order more inventory. Look at your Inventory Tracker to remind yourself how many of each item you need to order.

Remember to write down the quantities, multiply them times the cost, and then add all the Extended Costs to get your total. Don't worry about sales tax when ordering inventory.

Once you've ordered more inventory, write in your new amounts on your Inventory Tracker. To figure how many of each item you'll have for next month, follow this formula:

# In Stock – # Sold + # On Order = current # In Stock.

Here's an example: If you had 10 Widgets of starting inventory in January and sold 5, you would have 5 Widgets left (10 - 5 = 5). If you ordered 4 Widgets from the Supplies Catalog, you would then have 9 Widgets in stock for February (5 + 4 = 9). Or, to put it all together into one equation: 10 - 5 + 4 = 9.

### Inventory Example

Product	# In	#	# On	# In	#	# On	# In	#	# On
	Stock	Sold	Order	Stock	Sold	Order	Stock	Sold	Order
Widget	10	5	4	9					

### **Pet Store Supplies Catalog**

Item	Your Cost	Qty	Extended Cost
Dogs	\$50.00		
Cats	\$50.00		
Chew toy	\$3.00		
Dog food (10 lb. bag)	\$4.70		
Cat food (10 lb. bag)	\$4.70		
Collar	\$2.00		
Leash	\$2.50		
Bed	\$5.00		
Hamsters	\$1.00		
Mice	\$1.00		
Guinea Pigs	\$3.00		
Small wire cage	\$7.00		
Cedar shavings litter (5 lb. bag)	\$.70		
Rodent food	\$1.00		
Running wheel	\$1.70		
Fish	\$.40		
Fish Aquarium Kit	\$4.00		
Fish food	\$.70		
Parakeets	\$1.50		
Bird cage	\$10.00		
Bird food	\$2.00		
Rabbits	\$19.50		
Large wire cage	\$9.15		
Cedar shavings litter (10 lb. bag)	\$1.50		
Rabbit food	\$1.80		
Turtles	\$2.40		
Turtle Aquarium Kit	\$4.00		
Turtle food	\$1.70		
Ferrets	\$25.50		
Ferret Cage	\$10.00		
Litter (10 lb. bag)	\$1.50		
Ferret food	\$1.90		
TOTAL			

## 9. Ledger Entries

All right, it's time to see what all these business transactions did to your bank account over the month. On the first line of the Ledger on page 23, enter your ending Balance from the Ledger on page 10. That's how much money you had at the end of December.

Now look through this month's transactions and make Ledger entries for

- Each customer's order (Money In [credit])
- AISS amount (Money In [credit])
- Chance (Make any adjustments the card says to.)
- Advertising expense (Money Out [debit])
- Bills you paid (Money Out [debit])
- Sales Tax you collected and gave to the state (Money Out [debit])
- Inventory you bought (Money Out [debit])

### Ledger

Date	Who or What (Transaction)	Money Out (Debit)	Money In (Credit)	How much left? (Balance)
		(Deoit)	(Cledit)	(Balance)
12/31	Ending Balance			

## 10. Profit or Loss?

So did you make more money than you spent this month? Or did you spend more money than you made? Let's find out.

Look through Your Ledger and list all the debits on the chart below, then add them up to get a total for the Debits column. This number tells you how much money you spent during the month.

Do the same for all the credits. This number will tell you how much money you took in during the month.

Once you know the total amount of debits and credits, see which total is higher. If you had more debits than credits, you lost money; so write "Loss" in the Profit or Loss column. If, however, you had more credits than debits, congratulations! you made a profit! Write "Profit" in the Profit or Loss column.

Now, to figure out how much of a profit or loss you had, subtract the smaller total from the larger total and write the answer in the Difference column.

January	Money Out (Debits)	Money In (Credits)	Profit or Loss?	Difference
			_	
			_	
			_	
			_	
			_	
Total				

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# Your Business Math Series Pet Store Teacher Book

by Sonya Shafer

Your Business Math Series: Pet Store, Teacher Book © 2006, 2021 Sonya Shafer

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## Your Business Math Series Teacher Book

Welcome to the Your Business Math Series—the place where your student can own and manage his personal store and, at the same time, enjoy doing lots of math. Do you find it hard to believe that your student could enjoy math? Well, we've found that when the student can choose and run his very own store, all the math is tucked inside that proverbial "spoonful of sugar." Sure, it still takes work, but he's willing to work hard because it's his business!

### Math Skills

Your Business is a great way to introduce, practice, or review the following math skills and concepts:

- Addition
- Subtraction
- Division
- Multiplication
- Decimals
- Percentages
- Rounding
- Check writing
- Accounting

Your Business is designed for students who are able to add, subtract, multiply, and divide at least double digits, approximately an average skill level for ages 8–12. See the Calculating Keys section in the back of this book for a guide that explains and reviews specific math skills. Practice sheets are also provided for you to use if you think your student needs a little more work on a particular skill.

## Getting Started

**Step One:** Cut apart the Chance cards on page 53 in this Teacher book and put them into a labeled envelope.

**Step Two**: Cut apart the Additional In-Store Sales cards on page 55 in this Teacher book and put them into a labeled envelope.

That's it! You're ready to begin!

### How to Use

You decide how to incorporate Your Business into your math schedule. A quick pace would allow about fourteen weeks to complete the initial start-up and "one year" of business: one week to start up the business, twelve weeks to operate it (completing one "month" per week), and one week to wrap things up at the "end of the year." However, not everyone wants to do math at a quick pace. Feel free to reduce or expand on that schedule in order to accommodate your students and your allotted class time. You could take all year to complete "one year" of business if that timetable works best for your student. The main goal is for the students to understand what they're doing and enjoy doing it.

A fast-paced sample schedule might look like this:

- Week 1—Start Up Business
- Week 2—January Business
- Week 3—February Business
- Week 4—March Business
- Week 5—April Business
- Week 6—May Business
- Week 7—June Business
- Week 8—July Business
- Week 9—August Business
- Week 10—September Business
- Week 11—October Business
- Week 12—November Business
- Week 13—December Business
- Week 14—End of Year Wrap-Up

### A more relaxed sample schedule might look like this:

- Week 1—Start Up Business
- Weeks 2, 3—January Business
- Weeks 4, 5—February Business
- Weeks 6, 7—March Business
- Weeks 8, 9—April Business
- Weeks 10, 11—May Business
- Weeks 12, 13—June Business
- Weeks 14, 15—July Business
- Weeks 16, 17—August Business
- Weeks 18, 19—September Business
- Weeks 20, 21—October Business
- Weeks 22, 23—November Business
- Weeks 24, 25—December Business
- Week 26—End of Year Wrap-Up

Or take all year to follow a schedule something like this:

Week 1—Start Up Business

Weeks 2–4—January Business

Weeks 5–7—February Business

Weeks 8–10—March Business

Weeks 11–13—April Business

Weeks 14–16—May Business

Weeks 17–19—June Business

Weeks 20–22—July Business

Weeks 23, 24—August Business

Weeks 25, 26—September Business

Weeks 27–29—October Business

Weeks 30–32—November Business

Weeks 33–35—December Business

Week 36—End of Year Wrap-Up

The simple step-by-step instructions in the student's Your Business Math Kit book will help your student get up and running in her business. Here are the tasks she will be responsible to do.

### Start Up Tasks

- Create a name and logo
- Order and record start-up inventory
- Calculate selling prices
- Enter transactions in master ledger

### Monthly Tasks

- Fill orders and calculate invoices
- Adjust inventory amounts
- Add Additional In-Store Sales amount
- Make adjustments based on Chance card
- Write checks for monthly bills
- Total and pay sales tax collected
- Calculate advertising return on investment
- Order inventory to replace supplies
- Enter transactions in master ledger
- Calculate monthly profit or loss

## **Teaching Tips**

### **Store Start Up**

### 1. Create Your Logo

Allow your student to be as elaborate or simple as he wants to be with his store logo. Have fun!

### 2. Order Inventory

Ordering inventory may be a hard thing for some students since they don't have any idea how many items they will sell each month. Try not to encourage your student to look ahead at the upcoming monthly orders; that will take some of the fun out of running the store. But you might look ahead for him, just to give him an idea of the highest number of one item that you saw in the upcoming orders if that information will help keep the process fun.

### **Supplies Catalog Order Example**

Product	Your Cost	Qty	Extended Cost
Widget	\$3.00	7	21.00
What-cha-call-it	\$2.50	8	20.00
TOTAL			41.00

You and your student should also determine now what the store policy will be when an order is placed and the store doesn't have enough items in stock to fill that order. You could decide that the store will lose that sale that month. Or you might pretend that the customer isn't in a hurry and will wait until the next month for her order; then include the sale in the next month's transactions. Or you might come up with an entirely different idea. Whatever you decide, set the policy now before it happens so the student will know what to do.

### 3. Record Inventory

Pages 5 and 6 in the Student Kit are the Inventory Tracker. You might want to put a paper clip on page 5 so your student can find the Inventory Tracker easily. He'll be using it every month. If you need more Inventory Tracker sheets, you can download and print some for free on our Web site at http://simplycharlottemason.com/books/yourbusinessmath/mathlinks/

Your student should record in the first column of the Inventory Tracker the amount of each item he ordered from the Supplies Catalog.

### **Inventory Example**

Product	# In Stock	# Sold	# On Order	# Sold	# On Order	# In Stock	# Sold	# On Order
Widget	12							

### 4. Make Price Tags

Answers for the Price Tags are on page 15 in this book.

Use pages 31 and 42 in this Teacher Book if your student needs help with or practice multiplying with percentages for mark ups. He will be introduced to other percentages in future transactions.

### 5. Ledger Entries

We're recommending that the student allocate two lines per Ledger entry to help her line up the math problem vertically before adding or subtracting in the Balance column. This method allows you, the teacher, to double check her work more easily and pinpoint where she might have figured an incorrect answer along the way.

**Ledger Example** 

Date	Who or What (Transaction)	Money Out (Debit)		Money In (Credit)	1	How much left? (Balance)		
12/12/07	Beginning Balance			10,000	00	10,000	00	
12/14/07	Inventory	714	20			- 714	20	
						9,285	80	

In the above example, the little minus symbol was added to remind the student whether to add or subtract according to whether the amount is a credit or debit. Those symbols can be faded out in the later weeks of the Business operation if desired.

### **Monthly**

### 1. Fill Orders

Here is an example showing how an Order Form should be completed.

### **Order Form Example**

Customer: Mr. Smith	Price	Qty	Extended Price
Widget	\$6.00	1	6.00
What-cha-call-it	\$6.25	2	12.50
Subtotal			18.50
Sales Tax (6%)			1.11
TOTAL	-		19.61

Note: Use every opportunity to allow your child to act like a store owner. For example, I allowed one of my daughters to refuse to sell a mouse to Mr. Turncoat since it was intended for his pet snake. Your student will get plenty of practice with the other orders, so don't worry about similar incidents that may arise with your young store owner.

Use page 32 in this Teacher Book to show students how to calculate sales tax. You can also use page 44 for extra practice if you think your student needs some. This might be a good time to review rounding also. See page 46.

### 2. Adjust Inventory Amounts

In order to keep the Inventory Tracker from becoming unwieldy, make sure the student records the amounts only for items sold this month. Keep the other boxes handy for upcoming months and sales.

In the example below, you can tell that you still have 12 thing-a-ma-bobs, and 9 what-cha-call-its. The Widgets' total will be calculated later this month.

### **Inventory Example**

Product	# In Stock	# Sold	# On Order	# In Stock	# Sold	# On Order	# In Stock	# Sold	# On Order
Thing-a-ma-bob	12								
Widget	10	5	4						
What-cha-call-it	9								

### 3. Additional In-Store Sales

Take out the labeled envelope into which you put all the AISS cards, and let the student select one at random. No peeking!

These figures help generate more income into the store each month without overloading the Order writing and figuring that the student is required to do. Hold onto this card until you've determined whether its amount will be affected by the Chance card this month. Once the amount has been entered into the Ledger, you can either set aside the AISS card that the student drew or return it to the envelope for possible re-use.

#### 4. Chance Card

Take out the labeled envelope into which you put all the Chance cards, and let the student select one at random. No peeking!

Chance cards can affect the AISS amount, the monthly bill payments, or other parts of the business. If the Chance card affects the student's monthly supply purchasing, or some other activity she will complete on a different day, have her hold onto the card for use later in the week. Help your student make the necessary adjustments to the Ledger or Bill payments or whatever, according to what the Chance card says, as the business month goes on.

Encourage the student to have fun and remember this is a game. Set aside the Chance cards that she has already drawn as the business year progresses. Most students think that the Chance cards add excitement to the series; but if, for some reason, your student doesn't like the Chance cards, feel free not to use them.

### 5. Pay Bills

An example of the monthly bills is on page 11. Notice that the utilities and rent amounts should be added together and paid with one check payable to "Your Business Landlord." This combination will accomplish two purposes: first, it will give additional practice in adding; second, it will require a total of only three checks written each month so as not to become tedious.