

Tax and Discount – A Co-Teaching Lesson Plan

Co-Teaching Approaches

A “(Y)” in front of the following list items indicates the approach is outlined in the lesson. An “(N)” in front of the following list items indicates the approach is not outlined in the lesson.

- (N) Parallel Teaching
- (Y) Station Teaching
- (Y) Alternative Teaching
- (Y) Team Teaching
- (N) One Teach/One Observe
- (N) One Teach/One Assist

Subject

Grade 8 Mathematics

Strand

Computation and Estimation

Topic

Discounts/Sales Tax/Tip

SOL

8.4 The student will solve practical problems involving consumer applications.

Outcomes

Determine discounts, sales tax, tips, and total cost of products in a variety of real-life situations.

Materials

- Tape
- Student computer laptops
- The Frame Routine Diagram (attached)
- Let’s Go Shopping worksheet (attached)
- Coupon Math Chart (attached)
- Shopping Questions worksheet (attached)
- Product Images (attached)
- Coupon Images (attached)

- Price Tag Images (attached)
- Tax, Tip, and Discount Activity worksheet (attached)
- Coupon Tickets (attached)
- Sale Price Recording worksheet (attached)

Vocabulary

bill, discounts, original price, percentage, sales tax, tip, total cost

Co-Teacher Actions

Lesson Component	Co-Teaching Approach(es)	General Educator (GE)	Special Educator (SE)
Anticipatory Set	Team Teaching	GE provides direct instruction to model, setting up the correct proportion. Students then complete the bell ringer, a review on finding percent of change.	SE checks for students who need assistance on the bell ringer, a review on finding percent of change. SE provides individual instruction as needed.
Lesson:	Team teaching/ Station teaching	<p>GE and SE distribute the Frame Routine Diagram and review three main vocabulary words, <i>discount</i>, <i>sales tax</i>, and <i>total cost</i>. Students take notes regarding the main ideas for each word.</p> <p>GE provides direct instruction on the first two vocabulary words while students take notes. GE monitors students to make sure they stay on task.</p> <p>Students are given the Let's Go Shopping worksheet. They receive Coupon Tickets to purchase six to 10 items while trying to save the most money. GE checks for student understanding, making sure students stay on task and assisting with student questions as they might arise.</p>	<p>SE and GE distribute the Frame Routine Diagram and review three main vocabulary words, <i>discount</i>, <i>sales tax</i>, and <i>total cost</i>. Students take notes regarding the main ideas for each word.</p> <p>SE provides direct instruction on the third vocabulary word while students take notes. SE checks for understanding by using a quick informal assessment of thumbs up, thumbs to the side, or thumbs down.</p> <p>Students search for a local menu online with \$100 to spend. They are taking a friend out to dinner, and they must buy drinks, appetizers, entrees, and desserts. They may chose three different coupons</p>

Lesson Component	Co-Teaching Approach(es)	General Educator (GE)	Special Educator (SE)
		<p>GE should also check with the students at the independent station to ensure they are on task or to answer questions.</p>	<p>to use, and they need to calculate tip, tax, and total cost.</p> <p>SE monitors students at the menu station. SE checks for student understanding, making sure students stay on task, and assisting with student questions as they might arise. SE also checks with the students at the independent station to ensure they are on task or to answer questions.</p>
Guided/ Independent Practice	Alternative Teaching	<p>GE directs students to the independent station where students choose the website of a restaurant and pick an entrée, drink, and dessert for each student. Students add all selections into one bill. Using the Tax, Tip, and Discount Activity worksheet, students determine total cost, including tax and tip.</p> <p>GE works with preselected students most likely to have difficulty with the independent task. GE quickly looks over the work of the small group, reteaches the process, and has the group come up with one list of items they would all like to purchase on chart paper. Students staple their individual lists to the chart and submit them for closer review.</p>	<p>GE directs students to the independent station where students choose the website of a restaurant and pick an entrée, drink, and dessert for each student. Students add all selections into one bill. Using the Tax, Tip, and Discount Activity worksheet, students determine total cost, including tax and tip.</p> <p>SE works with the pre-selected students who are most likely to succeed independently with the task. SE assigns a partner or groups of four to share their lists. Students create one list of items they can all agree on to purchase. SE monitors and answers questions. Groups submit their group list with their individual lists stapled to it for closer review.</p>

Lesson Component	Co-Teaching Approach(es)	General Educator (GE)	Special Educator (SE)
Closure	Team Teaching	GE distributes exit slips and give directions to students.	SE instructs students on where to turn in the exit slip while checking student ratings.
Formative Assessment Strategies	Team Teaching	Students take a quiz on PowerSchool the following day. Student data is analyzed to determine which students need additional instruction. GE is responsible for finding the quiz on PowerSchool and creating the test sessions for each class.	Students take a quiz on PowerSchool the following day. Student data is analyzed to determine which students need additional instruction. SE prints out the data to determine which students need additional instruction.
Homework	Team Teaching	Students should complete their work for homework if they did not finish it at either station. GE monitors which students are not completing all of their work and identify which students have homework.	Students should complete their work for homework if they did not finish it at either station. SE informs the students of their homework assignments during the exit pass activity.

Specialty Designed Instruction

- Teachers will use the frame routine to provide students with the opportunity to develop a thorough understanding of information associated with key topics and main ideas. It provides a concrete representation of relationships between main ideas and details when evaluating units of study.
- Teachers will provide instruction in and review of calculator use for determining discounts, sales tax, and tips

Accommodations

- Check for understanding frequently, provide prompts, and adjust assignments for students who become overwhelmed easily with difficult tasks or struggle with staying on-task.
- Allow students to complete assignments in chunks if they struggle staying on task or completing lengthy assignments.
- Provide students with a copy of notes, according to their IEP accommodations.
- Provide students with calculators with additional functions (for those who qualify).
- Students identify a reduced number of problems associated with the Toys for Tots and menu activities

Modifications

- For those students who require a modified curriculum, content can be modified so that the student is finding total cost without having to calculate sales, discounts, or tips.

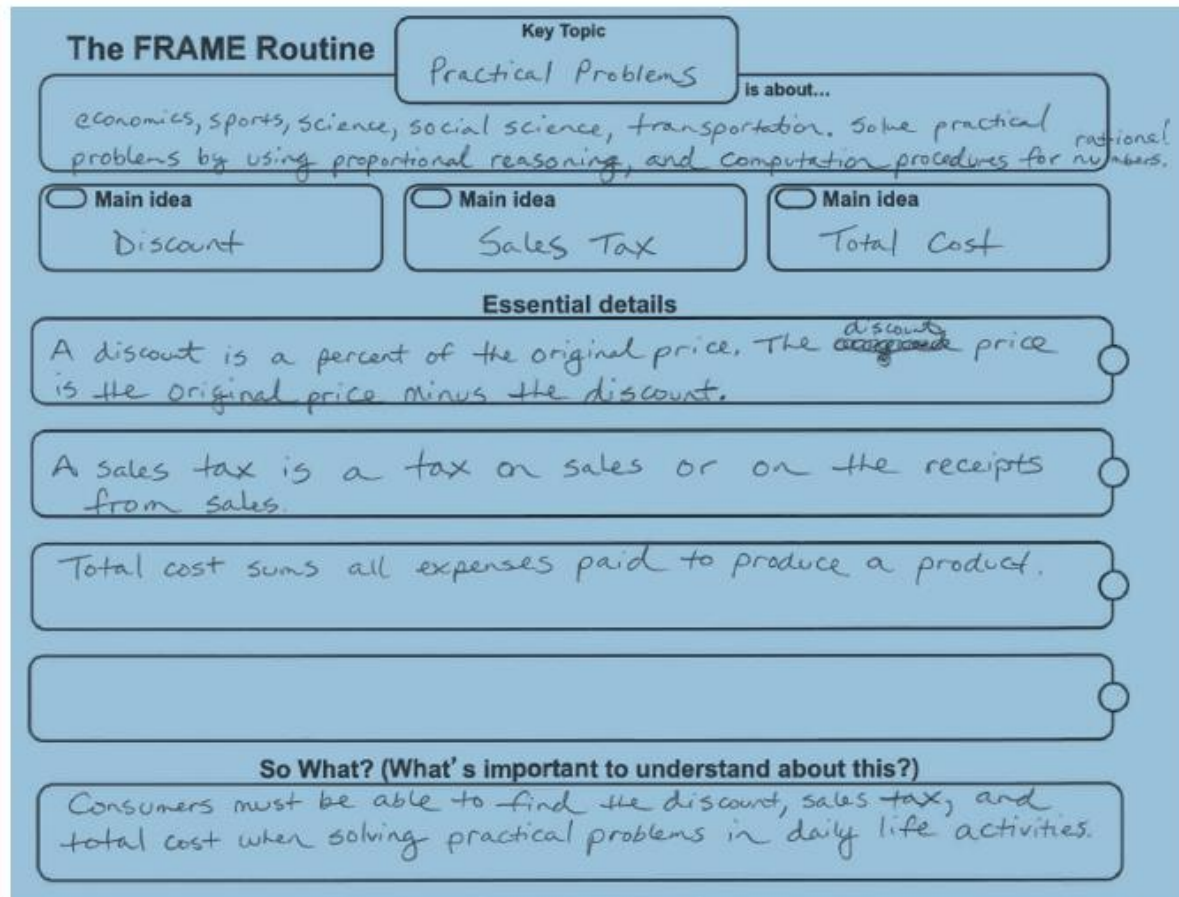
Notes

- “Special educator” as noted in this lesson plan might be an EL teacher, speech pathologist, or other specialist co-teaching with a general educator.
- The co-teachers who developed this lesson plan received required professional development in the use of specialized instructional techniques which combine an explicit instructional routine with the co-construction of a visual device (graphic organizer). The *Framing Routine* in conjunction with “The Frame” helps to develop understanding of information and procedures by associating their main ideas and details. These Content Enhancement Routines were developed at the [Center for Research on Learning at the University of Kansas](#).
- Other graphic organizers should be used by teachers who have not received professional development in the *Framing Routine*. If Virginia teachers would like to learn the Content Enhancement Routines, contact your regional TTAC.

Note: The following pages are intended for classroom use for students as a visual aid to learning.

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The Frame Routine Diagram



Let's Go Shopping

Let's Go Shopping!

You are "going shopping" at Ms. Long's Specialty Shoppe today. You have 6-10 items on your shopping list to buy so you are going to Ms. Long's Specialty Shoppe because the shoppe is giving out discount coupons to use and you want to save as much money as possible.

Directions:

There are items hanging around the room for you to "buy". You need to pick 6-10 items to purchase and look at the item's price tag (some prices are not on an actual tag; they are listed on the picture of the item instead). You will use the coupons the shoppe gives you to save money. Once you have decided on the items (6-10) you want to buy, complete the chart below. Use one row for each item you select.

Once you have completed this information, go back to your seat to complete the coupon column and the math. Before you write the coupon amount down, you need to think about how you can save the most money. (Coupons can be used on one item only and each coupon has to be used once.)

When you think you know how to save the most money possible, you will complete the math and show your work.

Calculate the discount amount in dollars and use this amount to calculate the sale price.

An example has been done for you to follow. To earn full credit, your work should look like the work shown in the example.

Coupon Math Chart

Item Name	Original Price	Coupon %	Discount Amount \$	Sale Price
Sweatshirt	\$45.00	25%	$\frac{x}{45} = \frac{25}{100}$ $x = 11.25$	$\begin{array}{r} \$45.00 \\ - \$11.25 \\ \hline \$33.75 \end{array}$
Item Name	Original Price	Coupon %	Discount Amount \$	Sale Price

Item Name	Original Price	Coupon %	Discount Amount \$	Sale Price

Coupon Images



Coupon Tickets

<p>Original Price: \$6.30 Discount: 10% Off</p> <p>What is the Sale Price?</p>  <p><small>© Kates Jane www.TeacherGems.com</small></p>	<p>Original Price: \$8.75 Discount: 20% Off</p> <p>What is the Sale Price?</p>  <p><small>© Kates Jane www.TeacherGems.com</small></p>
<p>Original Price: \$18.00 Discount: 15% Off</p> <p>What is the Sale Price?</p>  <p><small>© Kates Jane www.TeacherGems.com</small></p>	<p>Original Price: \$21.00 Discount: 35% Off</p> <p>What is the Sale Price?</p>  <p><small>© Kates Jane www.TeacherGems.com</small></p>
<p>Original Price: \$14.80 Discount: 25% Off</p> <p>What is the Sale Price?</p>  <p><small>© Kates Jane www.TeacherGems.com</small></p>	<p>Original Price: \$12.26 Discount: 50% Off</p> <p>What is the Sale Price?</p>  <p><small>© Kates Jane www.TeacherGems.com</small></p>

Original Price: \$7.36

Discount: 25% Off

What is the
Sale Price?



© Kates Jane www.TeacherGems.com

Original Price: \$4.75

Discount: 12% Off

What is the
Sale Price?



© Kates Jane www.TeacherGems.com

Original Price: \$13.00

Discount: 15% Off

What is the
Sale Price?

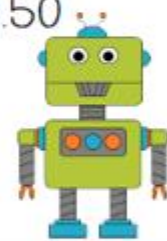


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Original Price: \$28.50

Discount: 50% Off

What is the
Sale Price?



© Kates Jane www.TeacherGems.com

Original Price: \$5.50

Discount: 20% Off

What is the
Sale Price?



© Kates Jane www.TeacherGems.com

Original Price: \$9.00

Discount: 5% Off















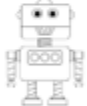









What is the
Sale Price?



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Sale Price Recording Sheet

Sale Price Recording Sheet

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Shopping Questions

Questions

Questions

1. Find the total amount of money you saved (the total of the discount prices):

 2. Find the total amount of money you spent:

 3. Imagine you have a coupon that says "Take 25% off your total purchase"
 - a. Find the discount off of your total:

 - b. Find the new total after the 25% off discount:
-

Price Tag Images



Product Images







Tax, Tip, and Discount Activity

Tax, Tip, Discount Activity

Name _____

Date _____ Block _____

You and three friends are going out to eat at a local restaurant to celebrate your birthday. Your grandmother gave you money to pay for your birthday dinner and you have a coupon, so you are “picking up the tab” for the meal. (Pay for everyone.) Using the space below, show how much the meal cost including tax, tip and the discount.

Restaurant

Tax rate _____ Tip 15% Discount _____

Menu items and amounts. (Purchase at least two food items, one drink and one dessert per person)

- | | |
|----|-----|
| 1. | 9. |
| 2. | 10. |
| 3. | 11. |
| 4. | 12. |
| 5. | 13. |
| 6. | 14. |
| 7. | 15. |
| 8. | 16. |

Total for menu items (Add prices for items 1-16): _____

Discount amount (Total x discount percent): _____

Tip (Total x 15%): _____

Tax (Total x tax rate): _____

Final cost (Total – discount + tip + tax) _____