

Store Inventory Activity

Activity Summary

- In this activity, students will:
- ♦ Determine the number of inventory items required to order
 - ♦ Complete inventory sheet and purchase order forms
 - ♦ Determine the retail price of certain items given a mark-up percentage
 - ♦ Determine the employee discount price of certain items
 - ♦ Complete the **Essential Skills** Inventory Checklist



Prior Knowledge

- **Essential Skills**
- Multiplication of whole numbers
- Use of a calculator
- Calculation of markup, discount and taxes



Teaching Planning Notes

- Review assignment including prior learning required and assessment and evaluation tools
- Teachers may want to do a sample inventory problem, or at least review how to calculate the retail price and how to calculate the percent markup with the class, before proceeding to Task #2
- Instruct students to use the **Essential Skills** inventory checklist while they are completing their tasks or immediately after completing each task
- You may have students work in pairs or individually

Assessment of Student Achievement

Task	Tool / Type
Calculate Inventory	Store-y Book Keeping Rubric (Summative)
Produce Purchase Order	Store-y Book Keeping Checklist (Formative)
Complete Price List	
Essential Skills Inventory	Essential Skills Inventory Master List (Formative)

Activity and Assessment Materials

For Students

- Store Inventory Assignment Sheet
- Assignment Checklist
- **Essential Skills** Inventory Master List
- Let's Make It Count Activity Sheet
- We Have A Problem Activity Sheet
- Supplier Catalogue Listing
- Order Up Activity Sheet
- The Price is Right Activity Sheet
- Store-y Book Keeping Rubric

For Teachers

- Inventory Problem Cards and Blank Samples
- Let's Make It Count Answer Key
- Inventory Master List (Blank Copy)
- Supplier Catalogue Listing Answer Key
- Supplier Catalogue Listing (Blank Copy)

FOCUS ON LEARNING

Essential Skills:

Reading Text

Inventory Problem Card
(*Store Manager's Notes*)

Document Use

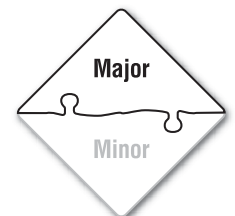
Inventory Master List
Supplier Catalogue Listing
Inventory Calculation Form
Purchase Order Form
Price List Sheet

Numeracy

All Activities

Thinking Skills

Solving Inventory Problems
Essential Skills *Inventory*



Note 1: This activity has been designed in the context of a School Tuck Shop. It can also be used in the context of any of the Technology sectors (ie. Transportation, Construction, Horticulture, Food Services, Tourism, etc.) by simply changing the Supplier List and the Master List of items to suit the sector (i.e. Transportation – Car parts, Cosmetology – Beauty Care Products, Horticulture – Seed & Garden Equipment, etc.)

Note 2: Although primarily designed as an activity for MAT 1L, this activity may also be used for BMX 3E with an emphasis placed in a discussion prior to the activity on factors affecting pricing and how to determine retail prices using gross margins. A reflective exercise on how this activity ties into their personal employability skills could also be included.

Curriculum Linkages For Ontario Educators

Essential Skills truly are everywhere and as teachers we are always teaching students the **Essential Skills!**

As subject teachers and specialists, we know that many of the curriculum expectations we are accountable to teach and assess, also address the **Essential Skills** and while the linkages are not always readily apparent, the linkages exist nonetheless.

While this activity connects to a variety of courses, it is most closely aligned to the following course(s):

- Locally Developed Compulsory Credit Course, Mathematics, Grade 9 – MAT 1L
- Introduction to Retail and Service Marketing, Grade 11, Workplace Preparation-BMX 3E

To assist you, the teacher, in making more transparent linkages, we have identified the following curriculum linkages for this activity.

Locally Developed Compulsory Credit Course, Mathematics, Grade 9 – MAT 1L

Coded Overall Expectations	Coded Specific Expectations
DMSV.01 – interpret, write, and round decimal numbers with understanding in everyday money situations;	DMS1.03 – round money values to stated accuracies
DMSV.02 – solve problems involving money, drawn from everyday situations;	DMS2.03 – solve problems requiring estimating and calculating the cost of projects that require the purchase of multiples of the same item
DPRV.02 – solve problems drawn from everyday situations involving percent, ratio, rate, and fractions;	DPR2.01 – solve problems involving fractions and percentages in practical situations (e.g., discount, sales tax, nutrition facts, sports data), by converting to decimals and using a calculator where appropriate;

Introduction to Retail and Service Marketing, Grade 11, Workplace Preparation BMX 3E

Coded Overall Expectations	Coded Specific Expectations
ROV.03 – identify and describe various methods of inventory control	RO3.01 – Identify and describe the steps involved in the ordering process
RSV.03 – evaluate the factors involved in pricing a product appropriately	RS3.03 – describe the factors that determine the pricing strategies used by retail and service businesses
	RS3.04 – demonstrate an understanding of how a product’s retail price is calculated based on an established gross margin

“Store-y” Book Keeping

It is important that retailers and business owners keep a certain number of items in stock so that they are able to sell the items when they are in demand. In the Panthers’ Den (School Tuck Shop) we like to keep a certain number of items stocked. Every two weeks, we do an inventory, that is, we count the number of items we have in stock then order what we need from our suppliers.



You will be required to

- determine the current inventory of items in the store room
- order the appropriate items to restock the room
- determine the retail price and the employee discount price for all new products added to our tuck shop

As you are completing each task you will also be “taking stock” of the *Essential Skills* you must use to complete each task.

Checklist

	COMPLETED <input checked="" type="checkbox"/>
Inventory Master List	<input type="checkbox"/>
Inventory Calculation Sheet	<input type="checkbox"/>
Purchase Order Form	<input type="checkbox"/>
Price List with work on a separate sheet	<input type="checkbox"/>
Skills Inventory Checklist	<input type="checkbox"/>

“Store-y” Book Keeping Essential Skills Inventory Master List

SKILL	DESCRIPTION	<input checked="" type="checkbox"/> WHEN USED
Reading Text	To scan for specific information/to locate information	<input type="checkbox"/>
Reading Text	To skim for overall meaning/to get the gist	<input type="checkbox"/>
Reading Text	To read the full text to understand and learn	<input type="checkbox"/>
Document Use	To read and interpret information	<input type="checkbox"/>
Document Use	To enter information	<input type="checkbox"/>
Writing	To organize/remember	<input type="checkbox"/>
Writing	To keep a record/to document	<input type="checkbox"/>
Writing	To inform/to request information	<input type="checkbox"/>
Writing	To persuade/to justify a request	<input type="checkbox"/>
Numeracy	Money math	<input type="checkbox"/>
Numeracy	Scheduling or budgeting and accounting math	<input type="checkbox"/>
Numeracy	Measurement and calculation math	<input type="checkbox"/>
Numeracy	Data analysis math	<input type="checkbox"/>
Numeracy	Numerical estimation	<input type="checkbox"/>
Oral Communication	To take messages	<input type="checkbox"/>
Oral Communication	To provide/receive information, explanation, direction	<input type="checkbox"/>
Oral Communication	To seek/obtain information	<input type="checkbox"/>
Oral Communication	To co-ordinate work with that of others	<input type="checkbox"/>
Oral Communication	To reassure/comfort	<input type="checkbox"/>
Oral Communication	To discuss (exchange information/opinions)	<input type="checkbox"/>
Oral Communication	To persuade	<input type="checkbox"/>
Oral Communication	To instruct, instill understanding, knowledge	<input type="checkbox"/>
Oral Communication	To negotiate/resolve conflicts	<input type="checkbox"/>
Thinking Skills	Problem solving	<input type="checkbox"/>
Thinking Skills	Decision making	<input type="checkbox"/>
Thinking Skills	Job task planning and organizing	<input type="checkbox"/>
Thinking Skills	Use of memory	<input type="checkbox"/>
Thinking Skills	Finding information	<input type="checkbox"/>
Working with Others	Work alone	<input type="checkbox"/>
Working with Others	Work jointly with a partner or helper	<input type="checkbox"/>
Working with Others	Work as a member of a team	<input type="checkbox"/>
Continuous Learning	As part of regular school/work activity	<input type="checkbox"/>
Continuous Learning	From other students/co-workers	<input type="checkbox"/>

“Store-y” Book Keeping

Task 1: Let’s Make It Count

Using the Inventory Master List, determine the number of items that the store likes to keep in stock. Look carefully at the description, since most items come in boxes that hold more than one item.

Inventory Master List:

Date: _____

ITEM DESCRIPTION	REGULAR STOCK AMOUNT	REGULAR STOCK AMOUNT (INDIVIDUAL ITEMS)	MARK-UP (%)	EMPLOYEE DISCOUNT (%)
Blue pens – box of 12	15 boxes		195%	25%
Calculator - Scientific	5		60%	15%
Calculator –basic	10		40%	15%
Cheese & crackers – box of 24	5 boxes		150%	10%
Duotangs - Blue – box of 100	2 boxes		60%	15%
Duotangs - Multicolour package of 5 (sold as package only)	10 packages		60%	15%
Eraser - Pink – box of 15	2 boxes		225%	25%
Granola bars – box of 32	6 boxes		150%	10%
Graph Paper - Pad (sold as a pad only)	50 pads		150%	30%
Gummy Worms – 2.5 kg package	5 packages		150%	0%
Lollipops – box of 120	4 boxes		150%	0%
Pencil with eraser – box of 144	3 boxes		212%	50%
Potato Chips - Plain - Box of 40	3 boxes		100%	15%
Protractor - Plastic – box of 50	1 box		160%	30%
Raisin snacks – box of 24 packs	5 boxes		150%	10%
Red pens – box of 12	10 boxes		195%	25%
Ruler - 15 cm Plastic – box of 10	3 boxes		130%	40%
Shirts – white with school logo	20		29%	5%
Shorts - black athletic	10		47%	5%
Water - 500ml bottle – case of 32	20 cases		800%	50%

“Store-y” Book Keeping Task 2: We Have a Problem!

Draw an inventory problem from the envelope. Each problem is a note from the Store Manager, telling you how many items are currently in stock as well as other instructions about new items that the manager would like you to order. Complete the Inventory Calculation Form for the information you were given using the Inventory Master List (page 241) and the Supplier Catalogue Listing (page 243).

Check off the **Essential Skills** you used to complete this task on the **Essential Skills Inventory Master List**.

Inventory Calculation Form (first two entries are examples)

Inventory Problem # _____

ITEM NUMBER	DESCRIPTION	REGULAR NUMBER OF ITEMS IN STOCK	ACTUAL NUMBER OF ITEMS IN STOCK	NUMBER OF ITEMS TO ORDER	NUMBER OF ITEMS PER BOX	NUMBER OF UNIT BOXES TO ORDER
Pen - 01	Red – box of 12	10 boxes = 120 pens	5 boxes + 5 pens = $5 \times 12 + 5 = 65$	$120 - 65 = 55$	12	$55 \div 12 =$ $4.6 \sim 5$
Shorts	Black athletic shorts	10	6	$10 - 6 = 4$	1	4

“Store-y” Book Keeping Supplier Catalogue Listing

Supplier Catalogue Listing (by catalogue number)

CATALOGUE NUMBER	DESCRIPTION	WHOLESALE PRICE (\$)
1005	Pens - Blue – box of 12	2.07
1015	Pens - Red – box of 12	2.07
1065	Pencils - Lead with eraser – box of 144	11.09
1081	Highlighter – Yellow – Box of 6	1.26
1176	Dividers – Set of 5	0.28
1180	Duotangs - Blue - box of 100	19.00
1195	Duotangs - Multicolour package of 5 (sold as package only)	0.79
1427	Bristol Board	0.33
1725	Eraser- Pink – box of 15	2.25
2145	Gluestick – package of 10	8.94
3000	Calculator – Basic (Solar)	2.99
3010	Calculator – Scientific (Solar)	7.86
6010	Lollipops – box of 120	12.44
6013	Caramels – Tub of 330	7.99
6017	Gummy Worms – 2.5 kg package	7.89
6020	Bubble Gum – Tub of 380	9.95
6023	Gum – 12 sticks -Breath freshening – box of 22	11.77
6110	Potato Chips - Plain - Box of 40	14.63
6115	Potato Chips - Multi flavour-box of 40	15.72
6220	Chocolate Bars – variety - box of 50	28.99
6311	M&M minis – Box of 140	29.15
6315	Granola bars -chewy– box of 32	9.99
6322	Raisins snacks – box of 24	6.99
6382	Cheese & crackers – box of 24	8.32
6800	Water (bottled) – case of 35	4.97
7301	Graph Paper Pads – _ inch	0.69
7304	Protractor – Plastic – box of 50	9.33
7308	Ruler - Plastic (15 cm)– box of 10	2.20
7309	Ruler – wood (12 inch)	0.45
8470	Lanyard – school colours- box of 250	500.00
9100	Gym Shirts - White with school logo	6.99
9200	Gym Shorts - Black	5.27
9310	Athletic Socks – men’s – 9 pair	15.99
9320	Athletic Socks – ladies’ – 6 pair	14.99

“Store-y” Book Keeping Task 3: Order Up!

Use the information you calculated on the Inventory Calculation Form and the Supplier Catalogue Listing to complete a Purchase Order Form for the items you need.

Check off the **Essential Skills** you used to complete this task on the **Essential Skills** Inventory Master List.

Purchase Order Form

Inventory Problem # _____

Ordered by: _____

Business Name: _____

Street Address: _____

City, Province, Postal Code: _____

Phone Number: _____

Contact Person: _____

Signature: _____

QUANTITY	CATALOGUE NUMBER	DESCRIPTION	PRICE PER UNIT OR BOX	TOTAL PRICE (\$)
			Subtotal	
			GST	
			PST (if applicable)	
			Final Total	

“Store-y” Book Keeping Rubric

CATEGORIES/ CRITERIA	LEVEL 1 (50-59%)	LEVEL 2 (60-69%)	LEVEL 3 (70-79%)	LEVEL 4 (80-100%)
Knowledge and Understanding				
Completed inventory calculation form with mathematical accuracy	Limited	Some	Considerable	Thorough
Completed Purchase Order Form with mathematical accuracy	Limited	Some	Considerable	Thorough
Completed Price List unit rates given the mark-up/discount percentages with mathematical accuracy	Limited	Some	Considerable	Thorough
Completed Mark-up calculation given retail price with mathematical accuracy	Limited	Some	Considerable	Thorough
Thinking				
Interpreted the inventory problems and carried out the correct procedure using the necessary tools	Limited Effectiveness	Some Effectiveness	Considerable Effectiveness	High Degree of Effectiveness

Note: A student whose achievement is below Level 1 (50%) has not met the expectations for this assignment.

“Store-y” Book Keeping Let’s Make It Count Answer Key

Inventory Master List: (Answer Sheet)

Date: _____

ITEM DESCRIPTION	REGULAR STOCK AMOUNT	REGULAR STOCK AMOUNT (INDIVIDUAL ITEMS)	MARK-UP (%)	EMPLOYEE DISCOUNT (%)
Blue pens – box of 12	15 boxes	180	195%	25%
Calculator - Scientific	5	5	60%	15%
Calculator –basic	10	10	40%	15%
Cheese & crackers – box of 24	5 boxes	120	150%	10%
Duotangs - Blue – box of 100	2 boxes	200	60%	15%
Duotangs - Multicolour package of 5 (sold as package only)	10 packages	10	60%	15%
Eraser - Pink – box of 15	2 boxes	30	225%	25%
Granola bars – box of 32	6 boxes	192	150%	10%
Graph Paper - Pad (sold as a pad only)	50 pads	50	150%	30%
Gummy Worms – 2.5 kg package (75 worms/kg)	5 packages	12.5 kg~938 worms	150%	0%
Lollipops – box of 120	4 boxes	480	150%	0%
Pencil with eraser – box of 144	3 boxes	432	212%	50%
Potato Chips - Plain - Box of 40	3 boxes	120	100%	15%
Protractor - Plastic – box of 50	1 box	50	160%	30%
Raisin snacks – box of 24 packs	5 boxes	120	150%	10%
Red pens – box of 12	10 boxes	120	195%	25%
Ruler - 15 cm Plastic – box of 10	3 boxes	30	130%	40%
Shirts – white with school logo	20	20	29%	5%
Shorts - black athletic	10	10	47%	5%
Water - 500ml bottle – case of 32	20 cases	640	800%	50%

“Store-y” Book Keeping Inventory Problem Card

Inventory Problem Card (Samples) – Notes from the Store Manager

Inventory Problem #1	Inventory Problem #2	Inventory Problem #3
<p>The following items are in the supply cupboard:</p> <ul style="list-style-type: none"> • 2 Boxes of Blue Pens • 3 Duotang Packages <p>Other Instructions:</p> <ul style="list-style-type: none"> • Order 2 tubs of Caramels and apply the same mark-up/discount as the lollipops • Order 2 dozen yellow highlighters, apply a 138% mark-up and 25% employee discount 	<p>The following items are in the supply cupboard:</p> <ul style="list-style-type: none"> • 1 Box + 40 Pencils • 3 Basic Calculators <p>Other Instructions:</p> <ul style="list-style-type: none"> • Order 2 boxes of M&M minis, use a 115% mark-up and the same employee discount as the potato chips • Order 5 boxes of Assorted Potato Chips, charge the same retail price as regular chips and use the same employee discount 	<p>The following items are in the supply cupboard:</p> <ul style="list-style-type: none"> • 53 granola bars • 2 Pairs of Athletic Shorts <p>Other Instructions:</p> <ul style="list-style-type: none"> • Order 100 sheets of Bristol board, charge \$1.00 retail per sheet and give a 45% employee discount • Order 2 tubs of bubble gum, use a 230% mark-up and no employee discount
Inventory Problem #4	Inventory Problem #5	Inventory Problem #6
<p>The following items are in the supply cupboard:</p> <ul style="list-style-type: none"> • 1 Box + 3 packages of Cheese & Crackers • 1-1/2 packages of gummy worms <p>Other Instructions:</p> <ul style="list-style-type: none"> • Order 5 boxes of red pens using the same mark-up/discount as blue pens • Order 2 boxes of Lanyards, apply a 60% mark-up and 15% employee discount. 	<p>The following items are in the supply cupboard:</p> <ul style="list-style-type: none"> • Half a tub of Lollipops • 2 packages of dividers <p>Other Instructions:</p> <ul style="list-style-type: none"> • Order 3 boxes of raisin snacks and use the same mark-up and employee discount as the granola bars • Order 20 Gluesticks, use a 125% mark-up and 30% employee discount 	<p>The following items are in the supply cupboard:</p> <ul style="list-style-type: none"> • 22 Graph Paper Pads <p>Other Instructions:</p> <ul style="list-style-type: none"> • Order 36 pairs of men’s athletic socks and the same number of pairs of ladies athletic socks. Use a 30% mark-up and 5% discount on the ladies socks and charge the same retail and employee discount price for both types of socks

“Store-y” Book Keeping Supplier Catalogue Listing Answer Key

Supplier Catalogue Listing (by catalogue number) (Answer Sheet)

*retail prices are rounded to the nearest) \$0.10 or \$0.05

CAT #	DESCRIPTION	WHOLESALE PRICE (\$)	APPROX. UNIT PRICE	MARK-UP (%)	RETAIL UNIT PRICE*	EMPLOYEE DISCOUNT (%)	EMPLOYEE PRICE (\$)*
1005	Pens - Blue – box of 12	2.07	0.17	195	0.50	25	0.40
1015	Pens - Red – box of 12	2.07	0.17	195	0.50	25	0.40
1065	Pencils - Lead with eraser – box of 144	11.09	0.08	212	0.25	45	0.15
1081	Highlighter – Yellow – Box of 6	1.26	0.21	138	0.50	25	0.40
1176	Dividers – Set of 5	0.28	0.28	70	0.50	10	0.45
1180	Duotangs - Blue - box of 100	19.00	0.19	60	0.30	15	0.25
1195	Duotangs - Multicolour package of 5	0.79	0.79	60	1.25	15	1.05
1427	Bristol Board	0.33	0.33	200	1.00	45	0.55
1725	Eraser- Pink – box of 15	2.25	0.15	225	0.50	25	0.40
2145	Gluestick – package of 10	8.94	0.89	125	2.00	30	1.40
3000	Calculator – Basic (Solar)	2.99	2.99	65	4.95	15	4.20
3010	Calculator – Scientific (Solar)	7.86	7.86	60	12.60	15	10.70
6010	Lollipops – box of 120	12.44	0.10	150	0.25	0	0.25
6013	Caramels – Tub of 330	7.99	0.02	150	0.05	0	0.05
6017	Gummy Worms – 2.5kg pack (approx 75worms/kg)	7.89	0.04	150	0.10	0	0.10
6020	Bubble Gum – Tub of 380	9.95	0.03	230	0.10	0	0.10
6023	Gum – 12 sticks - – box of 22	11.77	0.54	140	1.30	7	1.20

“Store-y” Book Keeping Supplier Catalogue Listing Answer Key (cont’d.)

CAT #	DESCRIPTION	WHOLESALE PRICE (\$)	APPROX. UNIT PRICE	MARK UP (%)	RETAIL UNIT PRICE*	EMPLOYEE DISCOUNT	EMPLOYEE PRICE (\$)*
6110	Potato Chips - Plain – Box of 40	14.63	0.37	170	1.00	7	0.95
6115	Potato Chips - Multi flavour-box of 40	15.72	0.39	160	1.00	7	0.95
6220	Chocolate Bars – variety - box of 50	28.99	0.58	60	0.95	7	0.90
6311	M&M minis – Box of 140	29.15	0.21	115	0.45	7	0.40
6315	Granola bars -chewy – box of 32	9.99	0.31	150	0.80	10	0.70
6322	Raisins snacks – box of 24	6.99	0.29	150	0.75	10	0.70
6382	Cheese & crackers – box of 24	8.32	0.35	150	0.90	10	0.80
6800	Water (bottled) – case of 35	4.97	0.14	800	1.25	50	0.65
7301	Graph Paper Pads – 1/2 inch	0.69	0.69	150	1.75	30	1.25
7304	Protractor – Plastic – box of 50	9.33	0.19	160	0.50	30	0.35
7308	Ruler - Plastic (15 cm) – box of 10	2.20	0.22	130	0.50	30	0.35
7309	Ruler – wood (12 inch)	0.45	0.45	155	1.15	40	0.70
8470	Lanyard – school colours- box of 250	500.00	2.00	60	3.20	15	2.70
9100	Gym Shirts - White with school logo	6.99	6.99	29	9.00	5	8.55
9200	Gym Shorts - Black	5.27	5.27	47	7.75	5	7.40
9310	Athletic Socks – men’s – 9 pair	15.99	1.78	83	3.25	5	3.10
9320	Athletic Socks – ladies’ – 6 pair	14.99	2.49	30	3.25	5	3.10

