

Hospitality and Tourism

Since making financial decisions has become an increasingly complex task in the modern world, people need to have knowledge in various areas and a wide range of skills in order to make informed decisions about financial matters. They need to be aware of risks that accompany various financial choices. They also need not only to develop an understanding of world economic forces, but also to become aware of ways in which they themselves can respond to those influences and make informed choices. It is therefore essential that financial literacy be considered an important attribute of a well-educated population so that Ontarians may continue to prosper in the future.

Financial literacy may be defined as “having the knowledge and skills needed to make responsible economic and financial decisions with competence and confidence”.¹ In addition to acquiring knowledge in such specific areas as saving, spending, borrowing, and investing, students need to develop skills in problem solving, inquiry, decision making, critical thinking, and critical literacy related to financial issues. The goal is to help students acquire the knowledge and skills that will enable them to understand and respond to complex issues regarding their own personal finances and the finances of their families, as well as to develop an understanding of local and global effects of world economic forces and the social, environmental, and ethical implications of their own choices as consumers.

This lesson plan along with other BBT lesson plans were developed by members of the Ontario Council for Technology Education (OCTE) in conjunction with the Ministry of Education. The lessons will be posted on the Ontario Education Resource Bank (OERB) <https://resources.elearningontario.ca/>

Contact Information	
Board	Halton District School Board
Development date	July/Aug 2011
Contact person	Murray Zehr
Position	Hospitality Teacher, Department Head of Robert Bateman High School and Curriculum lead for Halton District School Board.
Phone	
Fax	
E-mail	zehrm@hdsb.ca

Course Name	Hospitality and Tourism
Course code	TFJ3C/4C
Name of lesson plan es	Determining Food Costing for Standardized Recipes

Brief description of lesson plan	<p>This lesson introduces the student(s) to the process of determining food costs associated with standardized recipes (based upon the development of overhead and unit costs). During the lesson, the students will be exposed to and learn the associated terminology.</p> <p>Students will learn how to differentiate between AP (as purchased) and EP (edible portion). Student will understand how to develop a cost card from a standardized recipe including conversion of invoice costs into recipes costs, extensions, totalling and portion costs. Students will complete the attached exercise for determining food costs of a standardized recipe.</p>
Duration	2 -3 Periods
Overall expectations	<p>A3: demonstrate an understanding of fundamental culinary knowledge;</p> <p>A4: demonstrate an understanding of tools, equipment, and facilities used in the various sectors of the tourism industry.</p> <p>B2 demonstrate the ability to follow the best practices of administration and management as they relate the tourism industry;</p> <p>B4 apply appropriate management principles and practices to plan and execute an event or activity.</p> <p>D3 identify career opportunities in the tourism industry and the individual personality traits and skills important for success in these careers.</p>
Specific expectations	<p>A3.7 describe the effects of climate and season on the availability, quality, price, and nutritional value of food products and services.</p> <p>A4.3 demonstrate the ability to operate and maintain a variety of tools and equipment commonly used in different sectors of the tourism industry (<i>e.g., stoves, computers, vacuum cleaners, audio-visual equipment</i>), using proper processes and procedures;</p> <p>B2.3 use appropriate mathematical skills to accurately calculate food cost percentage based on the actual cost of food and the selling price per serving;</p> <p>B4.4 create appropriate purchase requisitions for different purposes (<i>e.g., to order food, cleaning products, or promotional materials</i>);</p> <p>D3.5 demonstrate an understanding of and apply the Essential Skills that are important for success in the tourism industry, as identified in the Ontario Skills Passport (<i>e.g., document use, scheduling or budgeting and accounting, job task planning and organizing</i>);</p>
Catholic graduate expectations (if applicable)	
Essential Skills and work habits	<p>Essential Skills</p> <ul style="list-style-type: none"> ✓ Reading Text ✓ Writing ✓ Document Use ✓ Computer Use

- ✓ Oral Communication

Numeracy

- ✓ Money Math:
- ✓ Scheduling or Budgeting and Accounting:
- ✓ Measurement and Calculation:
- ✓ Data Analysis:
- ✓ Numerical Estimation:

Thinking Skills

- ✓ Job Task Planning and Organizing
- ✓ Decision Making
- ✓ Problem Solving .
- ✓ Finding Information

Work habits

- Working Safely
- Teamwork
- ✓ Reliability
- ✓ Organization
- ✓ Working Independently
- ✓ Initiative
- ✓ Self-advocacy
- ✓ Customer Service
- ✓ Entrepreneurship



Instructional/Assessment Strategies

Teacher's notes

- Text book and or chapter copies available
- Handouts photo copied and ready
- Basic measurement conversions knowledge
- Use of a calculator
- Metric and Imperial conversion
- Volume and Weight conversion
- Access to Internet

Context

Minds on

As a class we will introduce food costing to the class. Group discussions. Handouts will be dispersed. As a whole group discussion we will explore factors which will affect food costs, and explain the importance of proper food costing in the Hospitality and Tourism Industry.

Hands On (Grade 11)

- Class will then be separated by grade and into groups of 3-4.
 - Teacher to supply calculators, pencils, erasers, and handouts
- Industry. 15 minutes
- Briefly present to class their results. Teacher will write their key points on the board and explore each of them with more detail
 - Handout and review on overhead

Hands On (Grade 12)

- Class will then be separated by grade and into groups of 3-4.
 - Teacher to supply calculators, pencils, erasers, and handouts
 - Each student will write why they deem food costing to be so important in the Hospitality Industry.
- 15 minutes
- Briefly present to class their results. Teacher will write their key points on the board and explore each of them with more detail
 - Handout and review on overhead

Strategies

- brainstorming/class discussion (used as prior learning assessment tool during topic introduction; "Why is food costing so important in the Hospitality and Tourism Industry?")
- Socratic lesson (present the lesson, distribute the terminology assignment)
- class discussion (review completed terminology assignment)
- Socratic lesson (introduce the calculation assignment, the AP/EP conversion chart)
- group/team work (discuss techniques, division of work, project management)
- presentation
- peer review

What adjustments must be made to the instructional and assessment strategies for those students who are not progressing?

For those who are not progressing at the same rate as the rest of the class, should team up with a partner, touch base with the instructor for extra time/ explanation and or come in for extra help after class.

Assessment and Evaluation of Student Achievement

As you plan, please keep the following important considerations in mind:

How will we know students are learning?	How will we know students have learned?
<ul style="list-style-type: none"> How will the students demonstrate progress towards the desired learning? 	<ul style="list-style-type: none"> How will the students demonstrate achievement of the desired learning?
<ul style="list-style-type: none"> What criteria will be used to determine whether the students are learning? 	<ul style="list-style-type: none"> What criteria will be used to determine that students have learned?
<ul style="list-style-type: none"> What assessment strategies/tools will best gather evidence during learning? 	<ul style="list-style-type: none"> What assessment strategies/tools will best gather evidence that the students have learned?
<ul style="list-style-type: none"> Will the assessment tasks provide opportunities for students to demonstrate the full range of their learning in a variety of ways? 	

Strategies/Tasks	Purpose
	Assessment for Learning (diagnostic, formative) Assessment of Learning (summative, evaluation)
1. Anecdotal notes	Assessment of learning-completion of the assignment
2. Student conferencing	Assessment for learning-daily conferencing to discuss project completion progress and importance of accurate data gathering (teacher/peer/self review)
3. Data on their chart paper	Assessment for learning-observation of how the team is functioning (team work dynamics) followed by feedback (oral and anecdotal)
Assessment tools	
<ul style="list-style-type: none"> -marking guidelines (see handouts) -observational/anecdotal notes and oral conferencing 	

Additional Notes/Comments/Explanations

<ul style="list-style-type: none"> Additional exemplars of food costing would be an asset Working knowledge of recipe conversions. Metric to Imperial and Weight to Volume Any and all industry invoices with current prices would also be an asset.

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Resources

Authentic workplace materials	
	<ul style="list-style-type: none"> • Produce and vegetable invoices from suppliers
Human resources	
	Hospitality Instructor, Math Instructor, Business Instructor
Print	
Video	
Software	
Websites	
Other	

Accommodations

What adjustments must be made to the instructional and assessment strategies to accommodate different learning needs?

- Assist students 1 on 1
- Group work
- Complete part of the handout
- Peer tutoring
- Allow extra time for completion

List of Attachments

APPENDIX 1 - Introduction to Food Costing for the Hospitality and Tourism Industry

APPENDIX 2 - Sample AP-EP Conversion Chart

APPENDIX 3 – Worksheet food costing

APPENDIX 4 - Worksheet: Determining portion cost on Minestrone Soup

APPENDIX 5 - Worksheet: Determine Portion Costs on your standardized recipes



Appendix 1 - Introduction to Food Costing for the Hospitality and Tourism Industry

- Introduction to Food Costing for the Hospitality and Tourism Industry

One of the most important functions of menu planning is charging the correct amount for items listed on the menu. Failure to do so will result in a selling price that is too high or low. Either of these situations is bad for the restaurant. In order to determine the correct selling price, it is imperative that the exact costs are known because selling prices are figured, to a large extent, on food cost.

Standardized Recipes and Cost Cards

To create a solid control system in any restaurant, standardized recipes are a necessity. They control the quantity and quality of ingredients used to prepare a particular dish, as well as to control the portions that are to be served. They are also a necessary tool in figuring the costs. There are two methods used to write standardized recipes. They are AP which means "as purchased", and EP which stands for "edible portion". There is a large difference between the two methods. On the AP-EP conversion chart you will be able to reference the weight of the edible portion from one pound as purchased.

In the AP method, all ingredient quantities are listed on the standardized recipes in the form in which they are purchased. For example, if a recipe were to call for "10 pounds of onions, diced" the cook would weigh the onions with their skins on (as purchased), then peel the onions, dice them, and add them to the recipe. In costing the recipe, the invoice cost of 10 pounds of onions would be used.

In the EP method, all ingredient quantities are listed using the edible portion only of that particular ingredient. In the case of the recipe calling for 10 pounds of onions, the onions would be peeled, diced, then weighed, and added to the recipe. To obtain a cost in this instance, the original weight of the product would have to be used. Thus, if we started with 11 pounds of onions to obtain 10 pounds EP of diced onions, we would use the 11 pound figure to determine our costs.

In spite of the fact that the EP method is more time consuming when it comes to figuring costs, it is the preferred method. The reason for this is that it is more exact. If you give several cooks an onion to peel, some would remove the skin only, and some would remove the skin along with one or two layers of the onion. In other words, while everyone started out with the same amount, the yield in each case would be different.

To simplify matters, for those using the EP method, conversion charts are available to assist in determining the costs. These work well in most cases. However, if you use an inordinate amount of a certain ingredient, yield tests should be conducted periodically to ascertain if the correct costs are being maintained.

APPENDIX 2 - Sample AP-EP Conversion Chart

Sample AP-EP Conversion Chart. Weight of edible portion from one pound as purchased.

Ingredient	Lb.	Ingredient	Lb.
Apples	.78	Potatoes, White	.81
Asparagus	.53	Radishes	.94
Avocado	.67	Rhubarb	.86
Bananas	.65	Spinach	.88
Beans, green	.88	Squash, Acorn	.87
Beans, lima	.44	Squash, butternut	.84
Beets	.77	Squash, Zucchini	.94
Blueberries	.96	Strawberries	.88
Broccoli	.81	Tomatoes	.99
Brussels sprouts	.76	Watermelon	.57
Cabbage, green	.87		
Carrots	.70	Beef	
Cauliflower	.62	Roast sirloin	.70
Celery	.83	Pot roast	.60
Chard, Swiss	.92	Short ribs	.60
Cherries, pitted	.87	Beef liver	.90
Chicory	.89	Swiss steak	.70
Collards, leaves	.57	Tenderloin steak	.90
Cranberries	.95	Sirloin steak	.75
Cucumber	.84	Shoulder clod roast	.70
Eggplant	.81	Boneless round	.60
Endive, Escarole	.78		
Grapefruit, sections	.52	Lamb	
Grapes, seedless	.97	Roast leg	.45
Kale	.67	Roast loin	.40
Lettuce, Head	.76	Lamb stew	.75
Lettuce, Leaf	.66		
Lettuce, Romaine	.64	Veal	
Mangoes	.69	Veal cutlet	.80
Mushrooms	.98	Roast leg	.50
Nectarines	.91	Roast loin	.50
Okra	.87	Loin chop	.75
Onions	.88	Rib chop	.75
Orange, sections	.40		
Parsnips	.83	Pork	
Peaches	.76	Tenderloin	.95
Pears	.78	Pork chops	.90
Peas, Green	.38	Spareribs	.65
Peppers, Green	.80	Roast pork loin	.50
Pineapple	.54	Ham steak	.80
Plums	.94		
Potatoes, Sweet	.80		

APPENDIX 3 - Worksheet food costing

Name of Recipe: Salad_Del_Monte Reference: 1
 Date: _____ # of Portions: 50 Cost Per Portion: \$0.671

Recipe:		Ingredients:	Invoice:		Recipe:		Extension:	
10	Lb.	Frozen Asparagus	\$86.91	12/2.5 Lb. (EP)	\$2.897	Lb.	\$28	970
4	Heads	Lettuce	8.65	24 Heads	0.36	Head	1	440
7	Oz.	Pimento	32.89	24/14	0.98	Oz.		686
14	Each	Eggs	.84	Dozen	0.07	Egg		980
1	Oz.	Parsley	.10	Recipe				100
1.25	Qt.	French Dressing	17.31	4 Gal.	0.34	Oz.	1	360
						Total:	\$33	536

After listing the ingredients, amounts of ingredients, and the invoice costs and units, the next step would be to break the costs down into the base unit used in the recipe. The first ingredient, frozen asparagus, costs \$86.91 for a case of 12 2-1/2 pound boxes. Therefore, we need to determine the cost of asparagus per pound. To do this, multiply the 12 boxes times 2-1/2 pounds per box to get 30 pounds per case. Next, divide the cost per case (\$86.91) by the 30 pounds to get the cost per pound (\$2.897). The cost per pound, \$2.897, is then multiplied by the amount of asparagus called for in the recipe (10 pounds) to get the total cost of that ingredient, \$28.97. This figure is then put in the extension column.

This process is then repeated for each ingredient of the cost card. For example:
 Lettuce- 24 heads to the case at a cost of \$8.65 per case. Base unit- head. \$8.65 divided by 24 equals \$0.360 per head. Four heads of lettuce are needed. \$0.360 times 4 equals \$1.44 which represents the total cost of lettuce for this recipe. \$1.44 goes into the extension column.
 Pimento- 24-14 oz. cans to the case. Base unit- oz. 24 cans times 14 ozs. Equals 336 oz. per case. \$32.89 cost per case divided by 336 oz. equals \$0.098 per oz. times 7 oz. called for in the recipe equals a total cost of \$0.686 for pimento.

Eggs- \$0.84 per dozen. Base unit- each. $\$0.84 \div 12 = \0.07 per egg times 14 eggs called for in the recipe equals \$0.98 total cost of eggs.

Parsley- one oz. This is a negligible cost and will be assigned a total cost of \$0.10. This method is employed to avoid the time-consuming task of breaking down a price when the result of that price will not substantially affect the total cost of that recipe. This method can also be utilized when the recipe refers to such items as salt and pepper to taste.

French Dressing- 4 one gallon jars to the case. Base unit- quart. Four quarts to the gallon times four gallons equals \$17.31 divided by 16 quarts equals \$1.082 cost per quart times 1.25 (1 $\frac{1}{4}$ quarts) called for in the recipe, equals \$1.353 total cost for the French dressing.

When the costs for each ingredient are placed in the extension column, the next step is to add these costs which give us a total cost to produce this recipe of \$33.529. Finally, the total cost of \$33.529 is divided by the number of portions (50) that the recipe will produce which gives us a cost of \$0.671 per portion.



APPENDIX 4 - Worksheet: Determining portion cost on Minestrone Soup

Worksheet: Determining portion cost on Minestrone Soup

Name: Minestrone_Soup Reference: _____
 Date: _____ # of Portions: 50 8_oz. portions _____ Cost Per
 Portion: _____

Recipe:		Ingredients:	Invoice:	Recipe:	Extension:			
15	Liters	Chicken Stock	\$30.00	60 Liters	\$0.50	Liter	\$7	50
1	Lb.	Green Peppers, diced	2.00	Lb.				
1	Lb.	Mushrooms	3.00	Lb.				
1	Lb.	Carrots, diced	1.00	Lb.				
1	Lb.	Celery, diced	1.00	Lb.				
5	Lb.	Tomatoes, diced	2.25	Lb.				
1	Bunch	Basil, sliced	1.50	Bunch				
					Total:			

Using the AP-EP conversion chart, determine the costs of the vegetables used in the Minestrone Soup based on Edible Portion. Upon completion of determining vegetable costs, determine cost per portion of the Minestrone Soup.

APPENDIX 5 - Worksheet: Determine Portion Costs on your standardized recipes

Worksheet: Determine Portion Costs on your standardized recipes

Name: _____ Reference: _____
 _____ Date: _____ # of Portions: _____ Cost Per
 Portion: _____

Recipe:		Ingredients:		Invoice:		Recipe:		Extension:	
							Total:		

For this activity, take a standardized recipe from your school or your favourite cookbook. Ask your Instructor for current food costs from invoices or research on the internet. Determine all costs associated with the standardized recipe and determine the food cost per portion.