



## Interdisciplinary Project for Fourth and Fifth Graders

### Sunday Market: Our Way

This project crosses math and ELA standards with engineering, community relations and business skills to introduce students to farmers markets, commerce, and small business, based on the model of the Sunday Market at Guthrie Green.

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**4-5 Interdisciplinary Studies  
Combination of Math, Engineering, ELA  
Sunday Market Our Way**

**Author:** Claire Schroepfer, Nicky DeMoss

**Revision Date of Lesson Plan:** July 7, 2013

**Overall Goal for the Lesson:**

Students will develop a plan, using data analysis, writing, and engineering, for an item to be sold in their own “Sunday Market.” Students will analyze costs, make a model of their item, write a business plan for creating and selling it, and present their booth to classmates, parents, or local partners, if available.

**Description of Setting, Grade Level, and Students:**

This activity can be used for fourth or fifth grade students, with varied levels of support (varied standards listed. This activity is can be done individually or in partners/teams and will require teacher pre-planning and investment.

**Student Objectives for the Project:**

Students will develop an understanding of farmers’ markets and general business (cost, demand, profit) and, with that understanding, develop a product of their own and a plan to sell that product. The final presentation can take place at Guthrie Green in a student-organized market.

**Length of Project:**

Total time: Ongoing project (multiple class periods)

- Two days for introduction, brain storming, research, etc
- Up to two weeks to develop their product and plan, with teacher and parent support, including some sort of presentation board or poster and a model item.
- One day for market on the Green

**Execution of Lesson (notes):**

1. Preparation: Teacher should begin by incorporating some front-loading informational lessons on farmers’ markets and local business into class time. Resources indicated at the end of the ‘project outline.’
2. Execution:
  - a. Teacher presents the project concept: develop a plan for a product you would like to sell (and think would be successful) in a local market. The initial day can simply be front-loading of ideas, including researching the vendors that come to Guthrie Green Sunday Market, other local businesses, or simply drawing off of student interests and ideas.
  - b. Through the course of the next two weeks (or so) teachers will control the flow of the project with lessons on cost and profit, writing a business plan, and writing a project pitch. Time in between these lessons can be used as teachers see fit.
  - c. Teachers should reference the following plans and implement them as they see fit, along with teacher-created plans to support student achievement:
    - i. Cost and Profit
    - ii. Writing a Business Plan (with materials)
    - iii. Why My Item is Awesome (Persuasive Writing)
  - d. Teachers will need to allow time for student research, support, and assistance in their planning. Students will almost certainly need access to computers (to type their business plans, research local businesses, etc).

- e. Many portions of this project may be completed as homework. For instance, the construction of the model item may be done at home with parental support. The typing of the business plan, if available, may be done at home. Expectations for final products may vary according to student and school access to resources and materials.
- f. Throughout the course of business plan writing and booth setup, students may need additional time and support via remediation in math skills, assistance with typing skills, etc.
- g. The final components necessary will include: a project “pitch” – a paragraph that can be used to explain the project and interest buyers, a business plan, a model item, and a presentation of some nature (flexible to teacher/student preference).
- h. Students may come to the Green and set up their presentations and plans, presenting them to peers, parents, and guests. For additional application, teachers may open lines of communication with Guthrie Green, local business people, or representatives from the Guthrie Green Farmers Market and invite them to attend the presentations. Students should remain by their presentation and be prepared to answer questions about their project. The consequence of this project (a prize, a partnership with a local business person, etc) is totally teacher/stakeholder-determined.

### Essential Vocabulary Words:

- Cost
- Profit
- Target Market
- CEO
- Farmer’s Market
- Marketing / Communication
- Persuade
- Professional

### Common Core Standards Addressed:

CCSS.Math.Content.4.MD.A.2 Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

CCSS.Math.Content.4.OA.A.3 Solve multistep 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.

CCSS.Math.Content.5.OA.A.2 Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. *For example, express the calculation “add 8 and 7, then multiply by 2” as  $2 \times (8 + 7)$ . Recognize that  $3 \times (18932 + 921)$  is three times as large as  $18932 + 921$ , without having to calculate the indicated sum or product.*

CCSS.ELA-Literacy.W.5.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

CCSS.ELA-Literacy.W.5.1 Write opinion pieces on topics or texts, supporting a point of view with reasons and information.

CCSS.ELA-Literacy.W.5.7 Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.

CCSS.ELA-Literacy.W.4.6 With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting.

**Assessment:**

Students will be assessed in a variety of ways and for a variety of skills.

1. Students will be assessed on their understand of cost and profit (including multiplication skills, money skills, and word problem application skills) through their business plan.
2. Students will be assessed on their formal writing skills through their project pitch or business plan. Plan and pitch can be graded on a rubric.
3. Students can be assessed on communication skills, research skills, and speech through the different aspects of their presentation.

**Accommodations:**

Some students may need accommodation and support in the following forms:

- Additional support and remediation of math standards including multiplication, decimals, money, etc.
- Additional time may be necessary for students who lack typing or computer skills.
- Considerations must be made for student access to materials and resources out of the classroom and additional accommodations may be necessary.

**Materials Needed:**

Lesson Plans and Project Guidelines

Computer Access

Resources List

Business Plan Outline

Presentation Materials (teacher's choice) (Posters, three fold boards, markers, etc)

Project Pitch

**Project Resources:**

Farmer's Markets:

<http://www.guthriegreen.com/guthrie-green-sunday-market>

<http://www.harlingenfarmersmarket.com/what-is-a-farmers-market>

## Overall Score:

Project Pitch: \_\_\_/16

Presentation: \_\_\_/16

Business Plan: \_\_\_/16

Cost and Profit: \_\_\_/12

## Presentation Rubric

Student:	4	3	2	1
Materials (Business plan, presentation, project pitch, model item)	All materials are included, complete, and neat.	All materials are included but one may be incomplete or messy.	Missing an entire material.	Missing more than one material.
Familiarity with Product	You can tell me all about your plan and item.	You may need to reference your plan or pitch once or twice.	You can't tell me much about your product without reading off the plan.	You have no idea what product you are selling.
Model Item	Model matches the description and is neat and professional.	Model item matches the description but may be a bit messy.	Model item only vaguely resembles item description.	Model item is totally different than the description or isn't there.
Attitude	Professional, positive, and passionate about your work!	Needed one or two adjustments to productivity or attitude.	Needed consistent reminders to get on track or improve attitude.	Had a poor attitude, didn't display best work, or didn't contribute to the team.

## 4-5 Math Cost and Profit

**Author:** Claire Schroepfer, Nicky DeMoss

**Revision Date of Lesson Plan:** July 8, 2013

### **Overall Goal for the Lesson:**

Students will understand cost and profit and apply that understanding to real-world scenarios.

### **Description of Setting, Grade Level, and Students:**

This activity can be used for 4<sup>th</sup> and 5<sup>th</sup> students, any class size. The lessons will be whole class, while practice can be small group or individual.

### **Student Objectives for the Lesson:**

SWBAT understand and utilize the formula for determining profit (selling price – cost = profit) and will be able to apply it to real-world problems.

### **Length of Lesson:**

This lesson should take approximately 40 minutes.

### **Schedule of Activities:**

1. Preparation: Any instructional materials (posters, etc) must be created and displayed.
2. As a class, discuss the meanings of ‘cost’ and ‘profit’ and how they relate to business.
3. Discuss the relationship between costs and profit (if an item has a high cost and a low profit, will it be successful? How about the other way around?)
4. Teacher should show and explain the formula for determining profit, using symbols or letters to indicate missing quantities.
5. Students should practice applying this formula to varying situations. An example sheet of relevant word problems is attached.
6. Ultimately, students will be expected to include a page in their business plan that exemplifies their understanding of profit titled: “Cost and Profit Worksheet.”

### **Common Core Standards Addressed:**

CCSS.Math.Content.4.OA.A.3 Solve multistep 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.

### **Assessment:**

Students will be assessed based on their completion of attached word problems or teacher-created assessment tool. Ultimately, part of their project grade should come from their ability to apply their understanding of word problems and the profit formula to their product.

### **Accommodations:**

Some students may need additional support with any of the components of the word problems including: multiplication, decimals, money, and symbols as numerals.

### **Materials Needed:**

Any teacher-created instructional materials  
Student materials (pencil, eraser, etc)  
Copied Practice Sheet

Name \_\_\_\_\_

### How Much Did I Make? Determining Profit

Remember that the formula for determining profit is  $S - C = P$   
 $[\text{selling price}] - [\text{cost}] = [\text{profit}]$

Example: Adam is selling hand painted signs he makes from recycled wood. It only costs him \$2.50 per sign to make them. If he sells them for \$6, how much profit will he make off of 14 signs?

$$\begin{aligned} &[\text{selling price}] - [\text{cost}] = [\text{profit}] \\ &[\$6 \times 14(\text{signs})] - [\$2.50 \times 14(\text{signs})] = P \\ &[84] - [35] = P \\ &49 = P \end{aligned}$$

**Adam will make \$49 selling 14 wooden signs.**

1. Audrianna is selling cookies at a bake sale. It cost her \$15.45 to make a batch of 24 cookies. She is going to sell them for \$2 each. If she sells all the cookies, how much profit will she make?

2. Patrick is selling wind chimes he built out of bottles and wooden dowels at his local farmer's market. It costs him \$8 per wind chime, including the cost of hot glue and wire. If he sells 12 wind chimes for \$20.00 each, how much profit will he make?

3. I loaned Evelyn \$100 to start up her purse-making business. For that amount, she was able to make 6 purses. If she sells each purse for \$30.00, will her profit be enough to pay me back my \$100?

**4-5 Writing**  
**Project Pitch: Why My Item is Awesome**  
**Persuasive Writing**

**Author:** Claire Schroepfer, Nicky DeMoss

**Revision Date of Lesson Plan:** July 8, 2013

**Overall Goal for the Lesson:**

Students will be able to write a persuasive paragraph describing their product and encouraging people to purchase it.

**Description of Setting, Grade Level, and Students:**

This activity can be used for 4<sup>th</sup> and 5<sup>th</sup> students, any class size. The initial teaching will be whole class, with small groups used for peer review and individuals composing their own pieces.

**Student Objectives for the Lesson:**

SWBAT write a persuasive paragraph about their market item, edit and revise it, and then use it as a ‘pitch’ for their presentation.

**Length of Lesson:**

This lesson should take approximately 1 hour, with additional time allowed later for revision and editing.

**Schedule of Activities:**

1. Teacher opens with an opening paragraph that is an example of a persuasive argument (for instance – convinces them to try the salad bar at lunch, citing health, short lines, etc) – any argument that is relatable to kids.
2. Teacher explains, through use of anchor charts, etc – what it means to persuade and what a good persuasive piece has (a great simple acronym to remember persuasive structure is OREO – opinion, reason, example, opinion. For a paragraph you may want OREREREO (three reasons with examples).
3. Teacher may use YouTube clips as examples of persuasive arguments or evidence based language. Some excellent examples listed in ‘Materials.’
4. Students are given a brief amount of time to practice using persuasive language with partners. Teacher may increase control by handing out pre-determined topics on slips of paper or post-its.
5. Students begin working on composing the first draft of their persuasive piece. The thinking map may be helpful (link listed under materials) for initial draft.
6. In later periods, students may peer review according to the classroom structure, then compose a final draft. It can be included on their presentation board or poster and they should be well rehearsed in saying it out loud.

**Common Core Standards Addressed:**

CCSS.ELA-Literacy.W.5.1 Write opinion pieces on topics or texts, supporting a point of view with reasons and information.

**Assessment:**

Students writing samples will be assessed using a rubric (attached). Part of their total project grade should come from the quality of this persuasive piece.

**Accommodations:**

Some students may need additional support with their writing structures and process. Additionally, it may be helpful or necessary for some students to reference the rubric throughout the writing process.



**Materials Needed:**

Paper, pencil, editing materials

Computer for final composition (if desired)

ReadWriteThink.org has a great thinking map that can be used for persuasive pieces at:

[http://www.readwritethink.org/files/resources/interactives/persuasion\\_map/](http://www.readwritethink.org/files/resources/interactives/persuasion_map/)

Examples of persuasive argument:

<http://www.youtube.com/watch?v=WQTsue0IKBk> (Audi: My Dad is an Alien)

[http://www.youtube.com/watch?v=QwRISkyV\\_B8&list=PLD4284B0B4A0EB5D8&index=4](http://www.youtube.com/watch?v=QwRISkyV_B8&list=PLD4284B0B4A0EB5D8&index=4) (Shamwow, and other 'top 10 persuasive videos')

Project Pitch: Why My Item is Awesome  
Persuasive Writing Rubric

Student:	4	3	2	1	0
Persuasive Structure: OREO	You used the OREO structure we talked about – three reasons, with an example for each.	You used the OREO structure we talked about, but left off 1-2 examples.	You used the OREO structure we talked about, but only have two reasons.	You used the OREO structure we talked about but only have one reason.	You did not use the OREO structure we talked about!
Voice	You used strong voice to convince people to buy your product. Silliness, elaboration, and first person are all OK!	Your voice was strong but you didn't use it throughout the entire piece.	You only used voice in your introduction and conclusion.	You didn't use a strong voice to convince your audience to buy your product.	You didn't use any voice at all (very formal, bullet points)
Grammar and Spelling (After peer review)	You remembered all your spelling and grammar rules and applied them to your piece.	You had less than three spelling or grammar errors!	You had 3-5 spelling or grammar errors in your piece.	You had 5 – 10 spelling or grammar errors.	You exceeded 10 spelling or grammar errors!
Appropriate Introduction and Conclusion	You introduced your product and opinion at the beginning and closed out by reminding your audience why it is awesome!	Your intro and conclusion gave your opinion but were not persuasive.	Your intro and conclusion didn't include a strong opinion or persuasive argument.	You may have left off the intro or conclusion, or you gave no opinion or persuasive argument.	You didn't have either an intro or a conclusion.

## 4-5 Writing & Math My Business Plan

**Author:** Claire Schroepfer, Nicky DeMoss

**Revision Date of Lesson Plan:** July 8, 2013

### **Overall Goal for the Lesson:**

Students will use the business plan worksheet, formal writing skills, and their knowledge of profit and cost to develop a business plan.

### **Description of Setting, Grade Level, and Students:**

This activity can be used for 4<sup>th</sup> and 5<sup>th</sup> students, any class size. The lessons will be whole class, while writing will depend on group size – either individuals or teams on given products.

### **Student Objectives for the Lesson:**

SWBAT understand and utilize the formula for determining profit (selling price – cost = profit) and will be able to apply it to their product, as well as use formal writing skills to compose a business plan.

### **Length of Lesson:**

This lesson should take approximately one hour.

### **Schedule of Activities:**

1. Preparation: Instructional materials must be posted for students to have access to – including vocabulary, profit/cost materials, etc.
2. As a class, revisit cost and profit as well as review vocabulary relevant to project.
3. As a class, work through the business plan worksheet, looking for numbers – not complex paragraphs. This is the ‘rough draft.’
4. As students move through the worksheet, they will then move into the writing process, where they will compose formal pieces of writing explaining the information represented in their worksheet.
5. Students should have access to the outline and rubric and should be shown an example of proficient business writing, which contrasts strongly with persuasive writing – lots of formal tone, bullet points, etc.
6. Students should have time to have their document reviewed by peers and then additional time to edit their errors.
7. Ultimately, students will be expected to include a 2 – 3 page business plan including all the information included in their worksheet.

### **Common Core Standards Addressed:**

CCSS.ELA-Literacy.W.5.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

CCSS.ELA-Literacy.W.5.7 Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.

### **Assessment:**

Students will be assessed based on a writing rubric (attached). A portion of the total project grade should come from a proficient completion of the business plan. Students should also be familiar enough with their plan to talk about it with people who approach their presentation.

### **Accommodations:**

Some students may need additional support with the math related to the business plan, as well as typing skills or other writing skills. Additional time or peer support may be allotted.

**Extensions:**

1. For additional rigor, students can compose research about who (in their classroom or community) would purchase their product, at what price, etc. This extension could encompass research and data standards, as well. This information could be included in the business plan.

**Materials Needed:**

Business Plan Template

Business Plan Worksheet

Pencil, scrap paper, etc

Computer Access (optional) for final draft

## **Writing the Business Plan [Template]:**

### **Section 1: The Business**

1. Product Description:
2. Target Market:
3. CEO:
4. Other Team Members:

### **Section 2: The Cost**

1. Cost of Materials per Item:
2. Investment Needed to Get Going:
3. Price of Individual Products:
4. Profit per Item:
5. Total Profit from First Investment:

### **Section 3: Communication**

1. How will you tell people about your product?
2. Will there be any costs associated with your communication?

# Business Plan Worksheet

## Section 1: The Business

1. Product Description: [Tell me about your product: Why is it useful? Why will I like it? What varieties does it come in?]

2. Target Market [Who is most likely to buy your product? Why?]

3. CEO: [Who is in charge? Who came up with the product?]

4. Other Team Members: [Who are the other people necessary to make this happen? What do they do?]

## Section 2: The Cost

*Show your work!*

1. Cost of Materials per Item:

2. Investment Needed to Get Going [How much money do you need to get started?]:

3. Price of Individual Products [How much will you be selling them for?]

4. Profit per Item [How much profit will you make *on each item*?]

5. Total Profit from First Investment [For example, if you said you needed \$50 to get started, how much profit will you make off of that \$50?]

## Section 3: Communication:

1. How will you tell people about your product?

2. Will there be any costs associated with your communication?



## My Business Plan Rubric

Student:	4	3	2	1	0
Formal Language (No first person or silliness)	Your language was professional and formal throughout.	You used mostly appropriate formal language and tone.	Your language was only formal about half the time.	Your language was very informal, mostly using first person or silliness.	You did not write a business plan.
Completion of Information (Did you leave anything out?)	Your final draft included information addressing EVERY topic on the template.	You only missed 1 topic on the template in your final draft.	You missed 2-3 topics on the template in your final draft.	You missed 3 -5 topics in your final draft.	You missed more than 5 topics in your final draft.
Grammar and Spelling (After peer review)	You remembered all your spelling and grammar rules and applied them to your piece.	You had less than three spelling or grammar errors!	You had 3-5 spelling or grammar errors in your piece.	You had 5 – 10 spelling or grammar errors.	You exceeded 10 spelling or grammar errors!
Use of cost and profit formula	You used the profit formula, your information was clear and everything was correct.	You used the profit formula and the info was clear, but you had 1 or 2 errors.	You used the profit formula but the information was not clear.	You attempted the formula but did it incorrectly.	You did not use the formula at all.