Project Planning Guide

Project Title: Creating a Business

Facilitator(s): Sarah Allison

School: Harvey Elementary School

Grade level(s): Grade 4

Community: Fredericton, New Brunswick

Product: Business

Adapted from the Buck Institute for Education Project Planning Form

Project Overview

The purpose of the following project is to allow students to become involved and play an active role in their learning. For this project students will be working in small teams (about 6-8 students per team) and create a business. They will create and sell an actual product and turnover a profit. The students will be expected to establish a business title, decide on a product that they are interested in marketing, acquire the necessary mathematical skills to calculate effectively run a business, decide on where the profits will go (profits will be donated to the non-profit organization of their choice) and students will also be responsible for advertising and broadcasting their business. Students will gradually build their business form the ground up and learn valuable skills and take responsibility for their creation.

Identify key skills students will learn during the project:
Apply their knowledge of fractions and decimals in a practical application.
Demonstrate the ability to add and subtract decimals.
Learn how to properly input information into a spreadsheet.
Learn how to plan, film, and edit a short film (commercial).
Gain an understanding of data analysis.
How to promote and market a product.
Understand the importance of keeping your audience in mind when writing.

Throughout this unit students will meet the following New Brunswick Mathematics curriculum standards:
GCO: Number (N): Develop number sense
N8 Demonstrate an understanding of fractions less than or equal to one by using concrete and pictorial representations to: name and record fractions for the parts of a whole or a set; compare and order fractions; model and explain that for different wholes, two identical fractions may not represent the same quantity; provide examples of where fractions are used.
N9 Describe and represent decimals (tenths and hundredths) concretely, pictorially and symbolically.
N10 Relate decimals to fractions (to hundredths).
N11 Demonstrate an understanding of addition and subtraction of decimals (limited to hundredths) by:
• using compatible numbers
• estimating sums and differences
• using mental math strategies to solve problems.

GCO: Patterns & Relations (PR): Use patterns to describe the world and solve problems
PR3 Represent and describe patterns and relationships using charts and tables to solve problems.
PR4 Identify and explain mathematical relationships using charts and diagrams to solve problems.

GCO: Statistics and Probability (SP): Collect, display and analyze data to solve problems
SP1 Demonstrate an understanding of many-to-one correspondence.
SP2 Construct and interpret pictographs and bar graphs involving many-to-one correspondence to draw conclusions.

This project will meet the following English Language Arts curriculum standards:
3. Students will be expected to interact with sensitivity and respect, considering the situation, audience, and purpose.

- show an awareness of the kinds of language appropriate to different situations and audiences

8. Students will be expected to use writing and other forms of representation to explore, clarify, and reflect on their thoughts, feelings, experiences, and learning; and to use their imaginations.

- experiment with language, appropriate to audience, purpose, and form, that enhances meaning and demonstrates imagination in writing and other ways of representing

10. Students will be expected to use a range of strategies to develop effective writing and other ways of representing and to enhance their clarity, precision, and effectiveness.

- use technology with increasing proficiency in writing and other forms of representing
- demonstrate a commitment to shaping pieces of writing and other representations through stages of development

Driving Question

How can you apply mathematical knowledge to plan, finance, build, create, promote, and facilitate a business?

Business Project Outline

Time (date/day)	Activity	Resources	Product
Day 1	Introduce the project to students. Review prior knowledge of fractions	Pie Chart	Develop company name, decide on product to sell and where the profits will go.
Day 2	Each company will create a survey that they will poll the student body on to help them determine the products they should sell.		Tally suvey.
Day 3	Companies will review the results from their surveys and re-evaluate the product they are going to sell. They will represent their data using a pie-chart graph, linear graph and a bar graph.		Confirm the product they are going to sell.
Day 4	Groups will be given time to strategize how they are going to promote their product. In Language Arts this day they will begin creating a script to create a commercial to advertise their product.		Beginning of advertising campaign.
Day 5	Today's math class will be dedicated to working on the value of money. Students will learn the basics of adding and subtracting decimals.	Activity sheet.	
Day 6	During math class today students will practice their adding and subtracting of decimals by completing a Book Order activity. During Language Arts students will be given time to film their	Book Order	Complete a Book Order activity. Complete commercial and hand in written

	commercials.		dialogue.
Day 7	Companies will begin creating their products during art class. Make sure necessary materials are available.	Art supplies and things needed for companies to create their products.	Product creation begins.
Day 8	Groups continue working on their products. During math class students will price their items, and calculate possible profits they will make on their products.	Art supplies and graph paper.	Profit predictions made.
Day 9	During Language Arts students will write a newspaper article about the launch of their business. Students must the thoroughly taught about the structure of a newspaper article.	Newspaper article examples.	Rough of newspaper article will be created.
Day 10	Students will go to the technology lab and type their newspaper article and make final corrections.	Technology lab Microsoft	Newspaper article completed
Day 11	Students will finish creating their first shipment of their product.	Art supplies.	Complete Round 1 of product.
Day 12	Each company will develop a podcast today to help promote their product to the student body.	Notebook Computers GarageBand Itunes	Create a podcast
Day 13	In math class students will calculate how much money they will earn if they sell all their products at a set price. How much would they make if they sold ½, 1/3, ¼ , 2/5 of their product?	Video recorders. Props needed for the commercials.	Video recordings of commercials.
Day 14	The final thing to create before the companies officially launch their product is to create flyers	Art supplies.	Created posters/flyers.

	and posters to put up around the school to advertise. Students are introduced to various writing styles.		
Day 15	The companies officially launch their products at recess.		Students handle money-making change.
Day 16	Math class is dedicated to counting money. Looking at the profits they made the previous day. Students will continue selling their products.		Counting money.
Days 17-19	Students sell their products at recess and lunch.		Students counting money and making change.
Days 20	Students will graph their profits from each day. They will graph it using a linear and bar graph, and they will create a pie chart that illustrate which day they made the most profit.	Graph paper, pie chart,	Graph which days their company made the most profit.
Day 21	Today students will write a reflection on the success of their companies. This paper should include a concise summary of what students learned in math and what advertising strategies they found to be most effective.		Write a project reflection.
Day 22	Today's class will begin with each company creating a card and letter to send the non-profit organization that they raised the money for. The class will end with a group discussion about the over all success of the project.		Compare, contrast and analyze the profit margins between the different companies.

Day 23	Students will calculate the different profit margins between the companies. Students will collaborate and discuss the most effective strategies to selling products. The project will end with a class discussion about whether or not students wanted to continue selling their products and raise money for a different organization or not.		

*Throughout this project, students will be learning in math about adding and subtracting decimals, applying fractions as discounts, and other math strategies that will help them complete this project. Furthermore students will build their writing skills as there are a number of language arts assignments to help students develop their writing repertoire.

Map the Project

The following chart outlines the skills the necessary skills for this project. The chart illustrates what students will have learned in previous years, at the start of the unit and during the project.

Knowledge and Skills Needed/Developed	Already Learned	Taught Before Project	Taught During Project
1. Basic knowledge of fractions.	X		
2. Basic knowledge of decimals.		X	
3. Basic knowledge of adding and subtracting decimals.			X
4. Knowledge of applying fractions (in terms of discounting).			X
5. Ability to interpret data from surveys			X
6. Ability to upload and edit video.			X
7. Understanding of the value of money and how to make proper change.	X		

Manage the Process

List the preparations necessary to address the needs for differentiated instruction for special *needs students and students with diverse learning styles.

Businesses will be created in groups to allow students to help one another grasps challenging concepts. This project has been created to accommodate students with a range of intelligences (linguistic, spatial, bodily kinesthetic, musical etc). All students should feel that they can succeed in this informal and hands on leaning project. Students who are learning at a level below grade level will be encouraged to participate depending on the level of understanding of the student. If there are students who cannot participate in this project because of a serious learning disability, a modified version on this project should be created by the teacher.

How will you and your students reflect on and evaluate the project?

☑ Class discussion

☑ Student-facilitated formal debrief

☑ Teacher-led formal debrief

☑ Individual evaluations

☑ Peer evaluation