



# Grow a Business

## Unit Summary

Fourth-grade students develop business acumen by marketing flowers for Mother's Day. Students conduct market research, determine product potential, seek funding, and market and sell their product. They survey schoolmates to determine flower popularity and use their knowledge of market price and profitability to "grow a business" and reach their sales goal. The *Visual Ranking Tool* helps students to set priorities, debate differences, and make correlations in order to reach consensus about which flowers to sell.

## Curriculum-Framing Questions

- **Essential Question**  
Why take the risk?
- **Unit Questions**  
How do we grow a business?  
How do you convince others?
- **Sample Content Questions**  
What is the difference between a producer and a consumer?  
In what ways can surveys help us to make decisions?  
What is marketing?  
What is profit?

## Assessment Processes

View how a variety of student-centered [assessments](#) are used in the Grow a Business Unit Plan. These assessments help students and teachers set goals; monitor student progress; provide feedback; assess thinking, processes, performances, products; and reflect on learning throughout the learning cycle.

## Instructional Procedures

### Prior to Instruction

In this project, students use the *Visual Ranking Tool* to weigh the importance of popularity, price, and profit to determine which flowers they should sell for Mother's Day. Examine the [Visual Ranking Web site](#) to learn about the tool and how to use it with your students. Discuss your fundraising idea with the parent advisory group and get initial approval before proceeding with these activities.

### Set the Stage

To set the stage for the project, inform students that Mother's Day is approaching and that this might be a great time to hold a class fundraiser for an upcoming field trip (or other event/equipment desired).

Note: If you don't already have a specific item in mind, have students brainstorm their own list of classroom wants and needs and together decide what the goal item should be for the fund-raiser. (Although not a part of this particular project plan, deciding what to buy for the classroom by ranking options in order of class preference could be a way to introduce students to the *Visual Ranking Tool*.)

Post the following Unit and Essential Questions: *How do we grow a business?* and *Why take the risk?*

Divide students into small discussion groups and have them brainstorm ideas on how to build and run a successful company. Assign one student to record responses. Bring the groups back together and have them share their answers with the entire class. Record and save these initial responses for later reflection and analysis.

## At a Glance

**Grade Level:** 3-5

**Subjects:** Social Studies, Math

**Topics:** Economics, Business, Persuasion, Comparative Analysis

**Higher-Order Thinking**

**Skills:** Decision Making, Critical Thinking

**Key Learnings:**

Economics, Data Collection and Analysis, Persuasive Writing

**Time Needed:** 8-10 class periods, 1 hour each

## Things You Need

- [Assessment](#)
- [Standards](#)
- [Resources](#)

Next, tell students that in order to grow a business they must first have a product or service to sell. Ask students to come up with gift ideas for Mother's Day. Divide the class into small groups and have them generate a list of things that "mothers like" (perfume, flowers, jewelry). After a few minutes of discussion, have the groups revisit their list and delete items that would not work well for a class fundraiser.

After they have finished, bring the groups together and discuss the activity as a class. Ask questions to prompt student thinking, such as:

*How did your list change?*

*How did you decide which items would or would not be good fundraisers?*

Have each group share the final list with the whole class. Discuss similarities and differences among the lists. While many products are possible, this unit is based on a class decision to sell flowers with further decisions needed on which type of flowers they should sell.

### **Discuss Business Decisions**

Discuss the concept of making informed business decisions and build a web diagram to capture student thinking. Use questions such as these to stimulate discussion:

- *How should group business decisions be made?*
- *How do you convince others?*
- *Does everyone have to agree?*
- *How do you know if you've made the right decision?*
- *What do producers need to know about consumers in order to make good business decisions?*
- *What else needs to be considered?*

Discuss the challenge of making group decisions, especially ones that can affect an entire business. Remind students that poor decisions put companies out of business every day, and that you do not want that to happen to them and their fundraiser.

### **Create a Market Survey**

Introduce the terms: producer, consumer, marketing, and profit. Define each using simple language that students can understand. To dig deeper into unit content and help students understand the importance of marketing research, post the Content Question: *In what ways can surveys help us to make business decisions?* Elicit and record student responses to the question. Next, tell students that they will be conducting their own marketing research to help ensure business success.

Pass out the [student version of the project rubric](#) and discuss the criteria the students will be assessed on during this unit of study. Allow for questions and make sure that students understand all aspects of the rubric.

Provide students with a list of flower choices available from local vendors. Distribute flower samples and have students take digital photos of them. Together, create a [market survey](#) to poll the entire school. Photos help students understand what they are voting on. Make sure to include a question or two asking whether students will support your fundraiser and buy flowers from your business.

### **Conduct a Poll**

Divide students into teams of 3-4 members and assign each team to poll one grade level using the market survey form. Make a spreadsheet template with fields or separate pages for each grade level. Make fields for the flowers and the classes at each grade level.

When they complete the survey, show students how to tally the results and enter data into a spreadsheet. Have them create at least one chart or graph from their one grade's data, and share their interpretations with the class (see [sample spreadsheet and chart](#)). Once students input their data, combine the data into a [single spreadsheet](#) to show school wide results. Use this opportunity to demonstrate how spreadsheets can be sorted in order to interpret data. Sort total number of student votes in descending order and then discuss the results.

### **Prepare to Prioritize**

Before proceeding with the next activity, build a project in the [Visual Ranking teacher workspace](#).

1. Set up a project called Grow a Business.
2. Describe the project and include this prompt: *Which flower(s) should we sell for Mother's Day?* Consider price, profit, and popularity as you rank the choices.
3. Populate the list using the top ten flower choices from the school wide data. Limiting the list to ten will make ranking more manageable and easier to discuss.
4. Set up groups and assign them to the project.
5. Create a [what we know handout](#) that includes the number of school wide votes received, sale price and profit margin for each flower they will be ranking. Give this to students before they start ranking and remind them to consider all these factors as they determine which flowers they should sell.

### **Introduce the Tool**

Introduce the *Visual Ranking Tool* using the demonstration space at [Try the Tool](#). Show students how to rank and compare lists, how to describe items, and explain their relative merit using the comments feature.

### **Rank Priorities**

Have students log in to their *Visual Ranking* team space. Point out the prompt: *Which flower(s) should we sell for Mother's Day?* Consider price, profit, and popularity as you rank them. Have each team categorize the items with these criteria in mind. Have them use the comment feature of the tool to explain why they placed the flowers in that particular order. Make sure teams refer to the [what we know](#)

[handout](#) as they rank and defend their choices. As students sort their lists, listen to their discussions and ask questions to help teams negotiate, make choices, and express their thinking.

### **Compare and Discuss**

Once teams have finished ranking and commenting, have them compare their lists and read each other's comments about why they placed items in that order. Suggest that they identify the teams that ranked items most and least like they did. Have similar and dissimilar teams meet to discuss their rankings and rationale behind the order. Some teams may want to revise their ranking based on what they learn from discussions with other teams.

### **Examine the Visual Ranking Activity**

The space below represents one team's ranking using the *Visual Ranking Tool*. The view you see is functional. You can roll over the red triangle to see the team's comments and click the compare button to see how different teams ranked the items.

**Project Name:** Grow a Business

**Question:** Which flower(s) should we sell for Mother's Day? Consider price, profit, and popularity as you rank them.

Once teams finish ranking and discussing, meet as a class to reflect on the process by answering some of these questions:

1. *How did your group decide ranking order? Was everyone in agreement? If not, how did you resolve the conflict?*
2. *How did your list compare with that of other groups, and what did you learn from it?*
3. *Was your group able to convince others to consider changing their ranking order or were others able to convince you to change yours? Why? How?*
4. *When considering popularity, price, and profit, was one factor more important than the others in deciding your ranking order? If so, how might this same factor affect businesses if they, too, consider it the most important factor?*

After comparing group lists and discussing learning outcomes, have students return to the *Visual Ranking Tool*. Give them a few minutes to adjust their ranking and comments as needed. Next, have each group compare its list with the "class average." Have them print a report of this comparison and attach it to a [summary](#) of what they learned. Their summary should communicate mathematical reasoning and what they learned from considering other teams' rankings. At this point students can change the selling price based on what they've learned from the *Visual Ranking* activity. To assess each individual's ability to understand and interpret data representations, create a [worksheet](#) that contains a pie chart depicting the school wide survey results and questions for students to answer. (To make the data easier to read and interpret, include only the flower choices that students ranked). The individual report should communicate mathematical reasoning and student's explanation of their decision-making processes. Ask students to refer to the [student version of the project rubric](#) to help guide their writing.

After students finish writing, gather together and discuss the pie chart and *Visual Ranking* class average. Revisit the Content Question: *In what ways can surveys help us to make decisions?* Help students draw conclusions and evaluate survey information to make a final decision about which flowers to sell.

### **Inform and Persuade Others**

Once you have decided what products you will sell and have determined a sales goal, ask students to write a letter to the parent group asking for start-up money to help launch the fundraiser. Begin the process by reminding students that before they can actually sell the flowers, they need to buy their inventory. Because they have no money to fund their business upfront, they will need to borrow it. Let them know that the school-parent group is willing to help, but they need to be convinced that your class fundraiser is worthwhile and that there is very little risk involved in funding your business venture.

Post the Unit Question: *How do we convince others?* Ask students to come up with a list of ideas that should be mentioned in the letter. Main elements should include an explanation of your purpose, your funding needs, market research and analysis, sales goals, and expected profits.

Once you have a comprehensive list of what should be included in the letter, discuss how the letter should be organized and written. Discuss using persuasive language that will make it impossible for the parent group to refuse your request. Ensure that students are aware of writing expectations as they write their letters and post the list of the main elements the class has decided to include. Give the students time to write, peer review, and then revise their letters into final draft form.

Have students share their completed letters in small groups. Then have the groups list some commonalities of each letter and then write one letter together. Use the group letters to create one [class letter](#) to send to the parent group. The individual letters can be assessed using the [project rubric](#).

### **Advertise and Sell**

Students are now ready to use their persuading skills to convince schoolmates to buy their product. Have students create flyers to distribute and post around the school to market their product. In advance, decide as a class on language and content for the flyer. Have students use desktop publishing software to create a professional-looking [flyer](#) or provide them with paper, markers, paint, and crayons for a more home-made effect.

Prior to Mother's Day, have students promote their fundraiser during the morning or afternoon announcements. Assign a different set of students and parent volunteers to be responsible for each day's selling. Allow time for students to practice giving correct change and tracking flowers sold.

Have students take turns staffing the flower booth and keeping track of money received. Make sure each day that the sales information is entered into a spreadsheet that will give the overall picture of profit/loss and types of flowers sold. Hold a celebration activity to reveal the results.

### **Measure Success**

To wrap up the unit, revisit the Essential Question, *Why take the risk?* and the Unit Question, *How do you grow a business?* Together, review business goals, research, funding efforts, marketing strategies, and profit. Help students to draw their own conclusions about whether or not their efforts to grow a business paid off and were worth the risk.

## **Prerequisite Skills**

- Addition and subtraction
- Basic word processing and desk top publishing skills
- Ability to enter data into a spreadsheet

## **Differentiated Instruction**

### **Resource Student**

- Make classroom modifications as expressed in the student's IEP.
- Present instructions in a variety of ways.
- Include checkpoints and positive reinforcement throughout the unit and assigned projects. Select helpful class partners who can support his/her needs.
- Allow extra time to complete assignments.

### **Gifted Student**

- Have students attend the next parent group meeting to deliver the class letter in person and present a short oral presentation to help persuade the group to consider your class proposal.
- Have them create a short commercial or jingle to promote your fundraiser, and have them present it over the PA system during morning or afternoon announcements.
- Have students take responsibility for researching flower purchases.
- Have them create a spreadsheet listing possible items for your class to sell and comparing vendor prices.
- Give them the task of doing cost analysis of the product you want to buy with the proceeds of the fundraiser. Have them compare features and prices and make a recommendation.

### **English Language Learner**

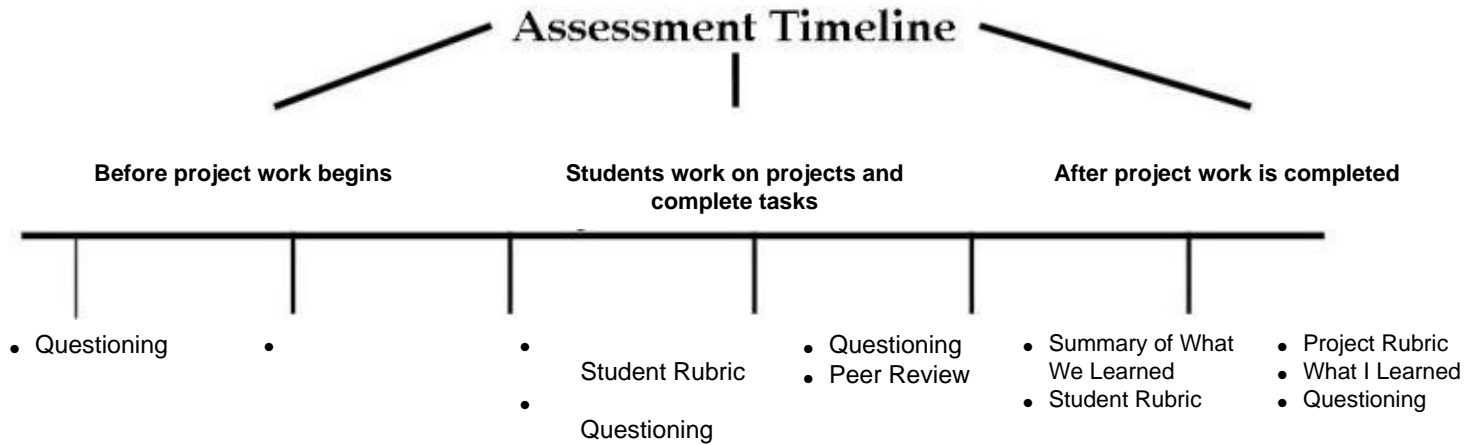
- Enlist the help of bilingual students to help with translation and interpretation of concepts.
- Provide more templates and graphic organizers.
- Supply translation and picture dictionaries.
- Select class partners that are best suited to work with this student and address his/her language needs.

### **Credits**

A teacher contributed this idea for a classroom project. A team of educators expanded the plan into the example you see here. This classroom project was featured in An Innovation Odyssey, a collection of stories of technology in the classroom, Story 164: [Bouquets for Business](#).

# Visual Ranking Tool: Grow a Business Assessment Plan

## Assessment Plan



A variety of questioning strategies help to tap students' prior knowledge, prompt student thinking about making informed business decisions, and guide teaching. Students use the [student version of the project rubric](#) to help them guide the creation of their business plan and their marketing research, and self-assess their work. The [project rubric](#) assesses student team effort, writing, and mathematical reasoning. Students participate in a peer review to give and receive feedback while writing their persuasive letters. The [summary of What We Learned](#) assesses what students learned about the class average in comparison to their own *Visual Ranking* list. The [What I Learned](#) assessment assesses what students learned from their school-wide survey results.

## Visual Ranking Tool: Grow a Business

# Content Standards and Objectives

### Targeted Content Standards and Benchmarks

#### National Council for Economics Education: Grade 4

##### Standard 1: Scarcity

People who make goods and provide services are called producers. People whose wants are satisfied by using goods and services are called consumers.

Entrepreneurs are people who organize other productive resources to make goods and services.

##### Standard 7: Markets – Price and Quantity Determination

Markets exist when buyers and sellers interact. This interaction determines market prices and thereby allocates scarce goods and services.

- A price is what people pay when they buy a good or service, and what they receive when they sell a good or service.
- A market exists whenever buyers and sellers exchange goods and services.

##### Standard 14: Profit and the Entrepreneur

Entrepreneurs are people who take the risks of organizing productive resources to make goods and services. Profit is an important incentive that leads entrepreneurs to accept the risks of business failure.

- Entrepreneurs are individuals who are willing to take risks, to develop new products, and start new businesses. They recognize opportunities, like working for themselves, and accept challenges.

#### National Council of Teachers of Mathematics: Grades 3-5

##### Data Analysis and Probability

Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer

- design investigations to address a question and consider how data-collection methods affect the nature of the data set;
- collect data using observations, surveys, and experiments;
- represent data using tables and graphs such as line plots, bar graphs, and line graphs;
- propose and justify conclusions and predictions that are based on data and design studies to further investigate the conclusions or predictions.

##### Communication Strategies

Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes.

##### Evaluating Data

Students conduct research on issues and interests by generating ideas and questions, and by posing problems. They gather, evaluate, and synthesize data from a variety of sources (e.g., print and non-print texts, artifacts, people) to communicate their discoveries in ways that suit their purpose and audience.

### Student Objectives

Students will:

- Gather data by conducting a school wide survey to determine product popularity and sales potential
- Summarize findings, draw conclusions, and rank items based on survey and research data
- Present findings in a proposal letter to the school parent group
- Use the *Visual Ranking Tool* to determine which flower students will sell

## Visual Ranking Tool: Grow a Business Resources

### Materials and Resources

#### Printed Materials

Flower catalogs and books

#### Internet Resources

These three companies offer current pricing and online ordering.

- Floral Express  
[www.floral-express.com](http://www.floral-express.com)\*
- The Flower Exchange  
[www.theflowerexchange.com/shop/Scripts/default.asp](http://www.theflowerexchange.com/shop/Scripts/default.asp)\*
- Online Wholesale Flowers  
[www.onlinewholesaleflowers.com/Thumbnailcatalog.html](http://www.onlinewholesaleflowers.com/Thumbnailcatalog.html)\*

#### Technology - Hardware

- Computer to access and utilize the *Visual Ranking Tool* in order to determine which flowers to sell, create marketing materials and parent letter, record and sort data, create graphs and charts
- Digital camera to take photos of the flowers that will be included on the market survey form
- Internet connection to conduct research and access the *Visual Ranking Tool*
- Printer to publish marketing materials, summaries of what they learned, and the parent letter

#### Technology - Software

- Desktop publishing to create flyers
- Internet browser to conduct research
- Spreadsheet software to record, sort, visually represent, and analyze data

[<< Return to Grow a Business](#)

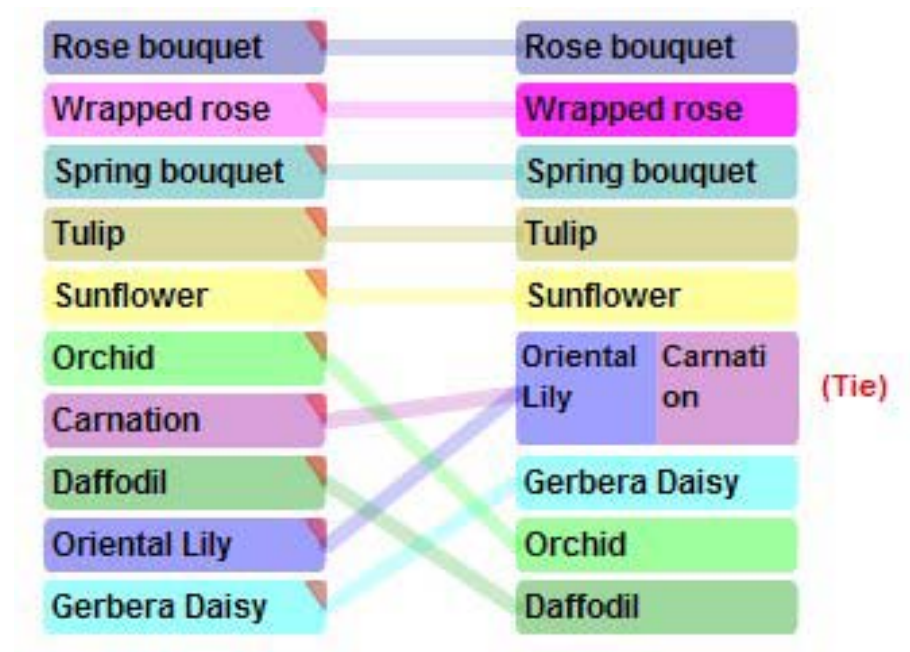
# Project Rubric for Students – Growing A Business

CATEGORY	4	3	2	1
<b>Decision Making</b>	<input type="checkbox"/> Clear, reasonable explanation for choice of flower <input type="checkbox"/> Complete reasons for decisions based upon survey data <input type="checkbox"/> Very convincing argument in letter to parents	<input type="checkbox"/> Logical explanation for choice of flower <input type="checkbox"/> Reasons given for decisions based upon survey data <input type="checkbox"/> Convincing argument in letter to parents	<input type="checkbox"/> Partially explains choice of flower <input type="checkbox"/> Incomplete reasons given for decisions based upon survey data <input type="checkbox"/> May or may not communicate a logical argument in letter to parents	<input type="checkbox"/> Little or no evidence of explanation for choice of flower <input type="checkbox"/> No evidence of reasons for decisions made <input type="checkbox"/> Letter to parent does not communicate a logical argument
<b>Mathematical Concepts</b>	<input type="checkbox"/> Outstanding ability to collect, organize, analyze, and effectively communicate number and graph survey results <input type="checkbox"/> Makes reasonable predictions based upon the data	<input type="checkbox"/> Basic ability to organize, analyze, and communicate number and graph survey data <input type="checkbox"/> Makes predictions based upon the data	<input type="checkbox"/> Some ability to collect and analyze graph survey data <input type="checkbox"/> Partially makes predictions based upon the data	<input type="checkbox"/> Very limited or no ability to analyze graph survey data <input type="checkbox"/> No ability to make predictions based upon the data
<b>Data Table</b>	<input type="checkbox"/> Flower survey data is well organized, accurate, and easy to read	<input type="checkbox"/> Flower survey data is organized, accurate, and easy to read	<input type="checkbox"/> Flower survey data has some inaccuracies and may be difficult to read	<input type="checkbox"/> Flower survey data is not accurate and/or cannot be read
<b>Graph Choice</b>	<input type="checkbox"/> Graph choice is excellent to show data correctly <input type="checkbox"/> Results are very clear and easy to interpret	<input type="checkbox"/> Graph choice is adequate to show data <input type="checkbox"/> Results are somewhat clear and somewhat easy to interpret	<input type="checkbox"/> Graph choice is not the best to show data <input type="checkbox"/> Results are difficult to interpret	<input type="checkbox"/> Graph choice is poor <input type="checkbox"/> Results are impossible to interpret
<b>Contribution</b>	<input type="checkbox"/> Always contributes ideas <input type="checkbox"/> Participates in all discussions <input type="checkbox"/> A definite leader	<input type="checkbox"/> Usually contributes ideas <input type="checkbox"/> Participates in most discussions <input type="checkbox"/> A strong group member who tries hard	<input type="checkbox"/> Occasionally contributes ideas <input type="checkbox"/> Occasionally participates in discussions <input type="checkbox"/> A satisfactory group member who does only what is required.	<input type="checkbox"/> Rarely contributes ideas <input type="checkbox"/> Rarely participates in discussions <input type="checkbox"/> Does not do what is required in the group
<b>Focus on the Task</b>	<input type="checkbox"/> Consistently stays focused on the task <input type="checkbox"/> Very self-directed.	<input type="checkbox"/> Focuses on the task most of the time <input type="checkbox"/> Other group members can count on this person.	<input type="checkbox"/> Focuses on the task some of the time <input type="checkbox"/> Other group members must remind this person to stay on task	<input type="checkbox"/> Rarely focuses on the task <input type="checkbox"/> Lets others do the work
<b>Working With Others</b>	<input type="checkbox"/> Always listens to, shares, and supports the efforts of others <input type="checkbox"/> Tries to keep people working well together.	<input type="checkbox"/> Usually listens to, shares, and supports the efforts of others <input type="checkbox"/> Does not cause "waves" in the group.	<input type="checkbox"/> Sometimes listens to, shares, and supports the efforts of others <input type="checkbox"/> Sometimes is not a good team member.	<input type="checkbox"/> Rarely listens to, shares, and supports the efforts of others <input type="checkbox"/> Often is not a good team player.

# Project Rubric – Grow A Business

CATEGORY	4	3	2	1
<b>Decision Making</b>	Gives clear, logical explanation for choice of flower. Gives solid reasons for the decisions made based upon survey data. Creates and communicates an effective and convincing argument in letter to parents.	Gives logical explanation for choice of flower. Gives reasons for the decisions made based upon survey data. Creates an adequate argument in letter to parents.	Partially explains choice of flower. Gives incomplete reasons for decisions made based upon survey data. May or may not communicate a logical argument in letter to parents.	Little or no evidence of explanation and/or reasons for choice of flower. No evidence of reasons for decisions made. Letter to parent does not communicate a logical argument.
<b>Mathematical Concepts</b>	Shows an exceptional ability to collect, organize, analyze, and effectively communicate number and graph survey results and make reasonable predictions based upon the data.	Shows a basic ability to organize, analyze and communicate number and graph survey data and make predications based upon the data.	Shows some ability to analyze and communicate number and graph survey data and partially make predictions based upon the data.	Shows very limited or no ability to communicate number and graph survey data, nor the ability to make predictions based upon the data.
<b>Data Table</b>	Data in the table of flower survey results is well organized, accurate, and easy to read.	Data in the table of flower survey results is organized, accurate, and easy to read.	Data in the table of flower survey results has some inaccuracies and format may make it difficult to read.	Data in the table of flower survey results is not accurate and/or cannot be read.
<b>Graph Choice</b>	Graph of flower survey results fits the data well and makes it easy to interpret.	Graph of flower survey results is adequate and does not distort the data, but interpretation of the data is somewhat difficult.	Graph of flower survey results distorts the data somewhat and interpretation of the data is somewhat difficult.	Graph of flower survey results seriously distorts the data making interpretation almost impossible.
<b>Contribution</b>	Always contributes ideas. Participates in all discussions. A definite leader.	Usually contributes ideas. Participates in most discussions. A strong group member who tries hard.	Occasionally contributes ideas and participates in discussions. A satisfactory group member who does only what is required.	Rarely contributes ideas or participates in discussions. May refuse to participate.
<b>Focus on the Task</b>	Consistently stays focused on the task and what needs to be done. Very self-directed.	Focuses on the task and what needs to be done most of the time. Other group members can count on this person.	Focuses on the task and what needs to be done some of the time. Other group members must remind this person to stay on task.	Rarely focuses on the task and what needs to be done. Lets others do the work.
<b>Working With Others</b>	Almost always listens to, shares, and supports the efforts of others. Tries to keep people working well together.	Usually listens to, shares, and supports the efforts of others. Does not cause "waves" in the group.	Often listens to, shares, and supports the efforts of others, but sometimes is not a good team member.	Rarely listens to, shares, and supports the efforts of others. Often is not a good team player.

## What We Learned



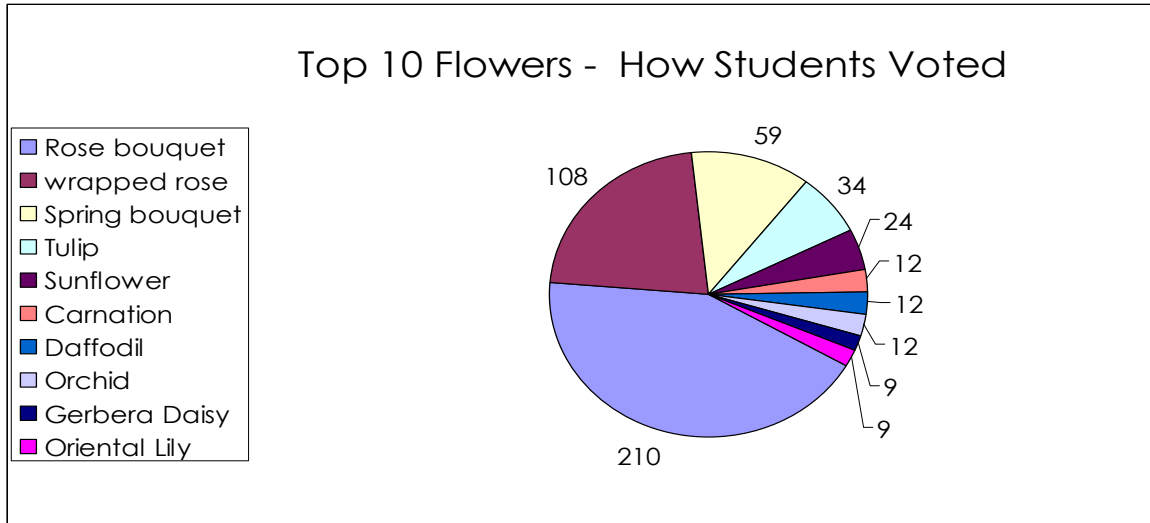
We learned that our team's top five flower choices matched the class average exactly.

We learned that we ranked the orchid higher than most groups. We thought because we could make \$13 on each orchid, we should sell it. Most groups said they ranked orchid low because it cost too much and most kids could not afford it. After we heard the other groups' reasons for not picking orchids, we changed our minds, and we agree with them. We should have ranked it lower, too.

We see that almost every group thought that it was important to sell a flower that cost only \$1 so that more students could buy them.

We found out there are a lot of different things to think about when deciding which flowers to sell. You need to think about profit, selling price and popularity. Some groups ranked their flowers by popularity without thinking about price. Others put profit first. But you really need to consider all of these.

We learned that having a few choices is a good thing but too many makes it hard. Being able to see the class average made the decision easier on which flowers we should sell.



## What I Learned

**What did you learn about what students like best and least?**

I learned that most students liked the rose bouquet best.

















Some of the flowers were very popular and others were very unpopular. The rose bouquet is very popular, and lily, daisy, daffodil, orchid and carnation didn't get very many votes (less than 12 each).

Almost every classroom picked the same top 3 flowers. The flowers that got the most votes cost a lot of money, which is good because we need a lot of money and we will sell a lot of those flowers.

**What did your group decide? Tell the steps in your decision.**

We want to sell the rose bouquet, spring bouquet, wrapped rose, and tulip. At first we decided to sell the flowers that got more than 50 votes but then we saw that the least expensive one of those one would cost \$3.50. To make sure more students could buy a flower for Mother's Day we decided to sell Tulips for just \$1.00. We will only make 33 cents each on Tulips but we think we will sell a lot of them because they are inexpensive.

Which would make the BEST Mother's Day gift?

			
Asiatic Lily	Bird of Paradise	Calla Lily	Oriental Lily
			
Tulip	Hydrangea	Daffodil	Carnation
			
Gerbera Daisy	Iris	Rose	Orchid
			
Sunflower	Single wrapped rose	Spring bouquet	One Dozen Roses
Will you buy flowers from our business on Mother's Day?	Will buy one or more	Will not buy	May buy

## Grow a Business Poll Results

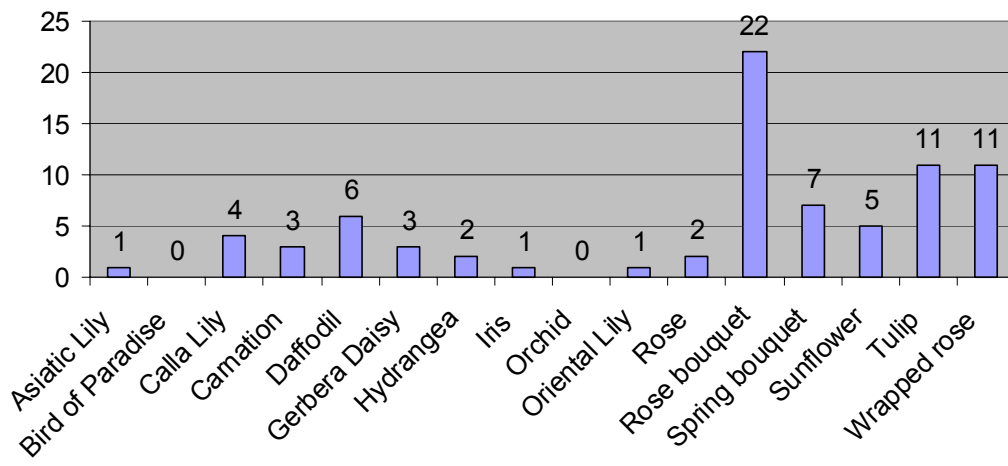
After the team conducts a survey of one grade level, they tabulate their data into a spreadsheet, supplying totals for each classroom and then adding the votes together. They make a chart with the grade level total for each flower, and present and interpret their survey results during a class discussion.

### Kindergarten Survey Results

by: Briar, Matthew, and Andre

<b>Flower</b>	<b>K1 am</b>	<b>K1 pm</b>	<b>K2 am</b>	<b>K2 pm</b>	<b>Total Votes</b>
Asiatic Lily	0	0	0	1	<b>1</b>
Bird of Paradise	0	0	0	0	<b>0</b>
Calla Lily	1	0	1	2	<b>4</b>
Carnation	1	1	1	0	<b>3</b>
Daffodil	2	1	2	1	<b>6</b>
Gerbera Daisy	1	0	1	1	<b>3</b>
Hydrangea	0	0	1	1	<b>2</b>
Iris	1	0	0	0	<b>1</b>
Orchid	0	0	0	0	<b>0</b>
Oriental Lily	0	0	0	1	<b>1</b>
Rose	1	0	1	0	<b>2</b>
Rose bouquet	5	8	5	4	<b>22</b>
Spring bouquet	2	1	1	3	<b>7</b>
Sunflower	1	1	2	1	<b>5</b>
Tulip	2	4	2	3	<b>11</b>

### Kindergarten Votes



	<b>K</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>Total Votes</b>
Rose bouquet	22	27	36	32	33	26	34	<b>210</b>
Wrapped rose	11	12	17	17	15	20	16	<b>108</b>
Spring bouquet	7	10	9	7	9	10	7	<b>59</b>
Tulip	11	6	6	6	2	2	1	<b>34</b>
Sunflower	5	3	4	5	3	3	1	<b>24</b>
Carnation	3	0	4	1	2	2	0	<b>12</b>
Daffodil	6	1	2	1	1	0	1	<b>12</b>
Orchid	0	2	1	4	4	1	0	<b>12</b>
Gerbera Daisy	3	1	1	1	1	1	1	<b>9</b>
Oriental Lily	1	4	0	2	2	0	0	<b>9</b>
Calla Lily	4	1	0	1	0	1	1	<b>8</b>
Hydrangea	2	1	0	1	1	0	2	<b>7</b>
Iris	1	4	0	1	0	0	0	<b>6</b>
Rose	2	1	0	0	1	0	0	<b>4</b>
Asiatic Lily	1	2	0	0	0	0	0	<b>3</b>
Bird of Paradise	0	2	0	0	1	0	0	<b>3</b>
<b>Total Students</b>	<b>79</b>	<b>77</b>	<b>80</b>	<b>79</b>	<b>75</b>	<b>66</b>	<b>64</b>	<b>520</b>

## WHAT WE KNOW

Item	Votes	Price	Profit
Rose bouquet	210	\$15.00	\$6.25
Wrapped rose	108	\$3.50	\$1.65
Spring bouquet	59	\$12.00	\$5.25
Tulip	34	\$1.00	\$0.33
Sunflower	24	\$1.00	\$0.55
Carnation	12	\$0.75	\$0.36
Daffodil	12	\$0.75	\$0.33
Orchid	12	\$30.00	\$13.00
Gerbera Daisy	9	\$1.00	\$0.40
Oriental Lily	9	\$3.00	\$1.50
Calla Lily	8	\$3.50	\$1.30
Hydrangea	7	\$3.00	\$1.50
Iris	6	\$1.50	\$0.60
Rose	4	\$1.50	\$0.81
Asiatic Lily	3	\$2.00	\$0.97
Bird of Paradise	3	\$2.00	\$0.80

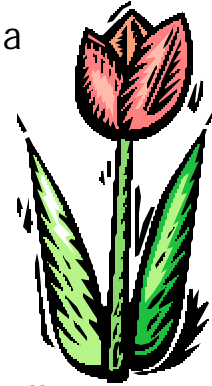
Top 10  
Flowers

March 17, 2004

Dear Hilltop School Parent Group,

The fourth-grade class would really like to buy a set of twenty digital microscopes to share among our four classrooms, but we need your help!

Each microscope costs about \$55, which means we need to raise \$1,100 to buy a class set. We decided that selling flowers for Mother's Day would be a great way to earn the money. However, since we will need to buy the flowers before we can sell them, we would like to ask you to consider lending us the money to kick off our business. We would like to borrow \$1,498.



If you agree to help, we promise that your investment will be totally safe. To make sure that we would make a profit, we did research. First, our teachers found a few businesses that sell cut flowers and bouquets at discount prices and created a spreadsheet listing the flowers they sell and how much each would cost us to buy. Next, we compared prices to see which flower company offered the best deal.

After that, we created a survey sheet with sixteen flower choices and polled the whole school to find out which they thought would make the best Mother's Day gift. We discovered that almost every grade level chose the same top four flower choices.

We then took a close look at these four flower choices and analyzed cost, profit, and vendor information. We learned that three of the four were from the same vendor, which would make ordering easy. So our next thought was to stick to selling just three and deal with the one vendor. Then we looked at sale price and realized that the wrapped rose, which was the cheapest, was going to cost us \$1.85 to buy and we would have to sell it for \$3.50 to make a decent profit. Since a lot of kids don't have very much money, we decided to add the fourth flower choice after all. We can buy tulips for just \$.67 each and sell them for \$1

each. Even though we will only make \$.33 on each tulip sale, we think we will probably sell a lot more of them. Having an item that costs just \$1 will also allow more students to buy our product. Dealing with two vendors will be harder, of course, but hopefully worth it. Even though the profit won't be as great per sale, this approach will allow us to expand to more customers, which we think is a good thing.

We also surveyed all of the students to find out if they would buy flowers from our business. We found that 356 students said they will buy one or more, 91 said they will not buy, and 92 said they may buy.

After collecting and analyzing all the data, we think we can sell a total of 400 items and reach our goal of raising \$1,100:

Item	Cost	Sale price	Profit per item	Goal # to sell	Cash needed	Total Profit
Tulip	\$.67	\$1.00	\$0.33	150	\$100.50	\$49.50
Wrapped rose	\$1.85	\$3.50	\$1.65	100	\$185.00	\$165.00
Spring bouquet	\$6.75	\$12.00	\$5.25	50	\$337.50	\$262.50
Rose bouquet	\$8.75	\$15.00	\$6.25	100	\$875.00	\$625.00
<b>TOTAL</b>				400	\$1,498.00	<b>\$1,102.00</b>

In order to meet our goal we will be advertising in a variety of ways and taking pre-orders. We will use pre-order numbers to figure out how many of each type to order and whether or not to change the sales goals listed above. We may also decide to make pre-ordering a requirement to reduce risk, even though it may hurt overall sales. We intend to begin advertising and taking pre-orders at the end of the month.

Please consider our proposal carefully. We hope you agree that this fund-raiser is a wonderful idea and decide to help us "grow our business." Thank you.

Sincerely,  
The Fourth Grade Students

# Make Mother's Day Special

Surprise Her With  
Flowers



Start Saving  
Your MONEY

Mother's Day  
is coming  
May 9th

Support our  
fund raiser and  
help us buy  
microscopes ...

Ask a  
Fourth Grade  
Student for Details

Don't Miss Out - ORDER TODAY

Tulip	\$1.00
Single Wrapped Rose	\$3.50
Spring Bouquet	\$12.00
Rose Bouquet	\$15.00