

**AN INTEGRATED UNIT
FOR GIFTED STUDENTS:
INTRODUCTION
TO THE STOCK MARKET
AND INVESTING**

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PREFACE

This instruction oriented resource book is an introduction to the stock market and investing that could be used for most students, including those in junior and senior high school, but was designed for gifted and talented elementary learners. Elementary students, especially the most able, can be creative, flexible and enthusiastic about what they learn when they are presented with new ideas in a fashion they can understand.

The reality of investments is an exciting segment of the world around us and is an excellent vehicle for students to learn to assimilate theoretical concepts and to apply the practical knowledge. In this way, this unit of study specifically utilizes a blending of a "whole curriculum" approach with special emphasis on the development of process skills, a priority with Alberta Education.

Objectives and Accountability

The unit consists of ten lessons in an easy to follow format. The unit was piloted once with a group of gifted grades 3-6 students for informal field testing, refined and taught again to a second group of identified gifted students, Grades 3-6.

Each lesson consists of one or more objectives based on General Learner Outcomes to be achieved before proceeding to the next lesson. Each learner outcome includes teacher instructions, questions, responses, and suggested resources. As teachers become familiar with the student outcomes, they will be able to utilize other resources to expand the scope of the study of the market. Two measurement tools are included for assessment at the end of the unit.

The unit of ten lessons may extend to one semester or more of study depending upon the class time available and the level of abilities of the students.

Teacher Performance Strategy

Suggestions for using this resource book:

1. Group gifted students from grades 3-6 in classes of a minimum of two to a preferred maximum of 12 children.
2. Timetable a two hour block of time once per week for classes. A block of one and one-half hours is the minimum recommended for this age group of students.
2. Begin each class by finding out what the students know about the topic.
3. Facilitate learning through questioning techniques. The "market" prompts discussion! If students do not understand, have other students explain and assist. This peer teaching encourages social interactions among the gifted students across grades and improves time management and student outcomes when graphing stocks.
4. Use additional teaching strategies in addition to facilitative techniques, for applied learning for the body of the class lesson.
5. Close by asking students for 1) summations of their learning for that class, 2) suggestions of what will be necessary to cover in the next class. This allows for conceptualization, planning, and goal setting.
6. Draw a composite graph of stock percentage gains and losses for all students to evaluate, with a copy for each to keep at the end of the unit.
7. Be FLEXIBLE! Go with the discussion and questions from the class. The items missed in one class can be selected to begin the next class so that the unit of ten lessons can be covered as a "base" of information from which you can branch out in many directions. The "market" and investing is a very broad field. This makes teaching the unit very exciting for all concerned.

LEARNING OUTCOMES 1. GLOBAL AND TIME IDEAS.

To develop the vocabulary and ability to deduce figural relations for forming new concepts of global interactions.

To be sensitive to consequences of new technology for expressing reasons for the new requirements.

1. Global Time Zones
2. Effect of Computer Technology
3. Consequences for Investors.

TEACHER INSTRUCTIONS

GENERAL

1. Organize students with a Duotang, label and paper handout, or allow them to use a section of one of their three-ringed binders. Insure they have name, grade, current date. Allow them to decorate "their" book as time permits. (Organizational skills and personal creativity).
2. Ask the students to each think of an individual title for their own book or one for the group as a "club", to be decided and "labelled" at the beginning of next class. (Pre-planning, ownership and social processes)
3. Have students write vocabulary and definitions as you proceed through the lessons.
4. Hand out Time Zone Map.

SPECIFIC

1. Can anyone suggest what the following term means:
Stock Market? (discussion)
Stock Exchange? (clarification)

Lesson 1.

3. Do you know of any places that have a Stock Market? (experiential and listing)-answers under Responses).

4. Can you suggest any problem with buying a stock today in our city? (cause-effect)

What would be a problem in ordering stocks from:

-New York to buy in a small Canadian city?

-Tokyo to buy in a small Canadian city?

(assimilation and application)

Review the Time Zone Map, Atlas or Globe, by asking students to explain what the zones mean, what time variations they could give as examples.

5. Can you suggest a way of managing the differences in time for buying stocks? (synthesis)

6. Have you ever dreamed of starting your own company? (why? what products? where to sell?) (evaluation)

What would you have to have to start the company? (besides the reason for the company) (judgement)

Suggest this next question only after students have come up with ideas of needing money. What could you do for your company with more money? (application)

7. How many ways can you think of that are possible for you to get more money for your company? (experiential, creative)

8. List what you remember of the lesson and everyone help each other to complete it. Remember you have to decide on a name for your book or as a club next class. (interaction, peer teaching, decision making)

9. Stocks and Bonds were mentioned for "your company". As you will be wanting to offer shares worth millions of dollars on the stock market, I am certain you will want to find out more about Stocks and Bonds to tell us next class. (motivation, parent/friend involvement)

SAMPLE RESPONSES

1. The Stock Market is a special "market", (a place to buy and sell), where stocks and bonds are traded.
2. The Stock Exchange is a building or marketplace where stocks and bonds are sold by people called brokers, dealers or financial advisors. The Stock Exchange may be considered the same as a Stock Market.
3. Calgary, Winnipeg, Toronto, Montreal, Vancouver. New York, London, Tokyo.
4. The aspect of time difference is the answer.
5. The technology of computers has helped the stock markets be "available" or "in-touch" around the world.
6. You need a good product or service to "sell" or "trade" in your company but most importantly you need money to start. With more money you could improve and expand the business.
7. You can inherit.
(Teacher) "I have no rich relatives!"

You can borrow.
(Teacher) "You will have to give me something valuable of yours in return for me loaning you money. This is called collateral."

You can take in a partner.
(Teacher) "How easy would it be to get along? and what would be the consequences?"

You can sell shares as stocks or bonds.

(ask students the meaning of company, inherit, borrow, loan, collateral, partner, consequences).
8. Facillitate student review of concepts.

MATERIALS/RESOURCES

1. Sample Time Zone Map of Canada and USA.
2. Local Telephone book for Time Zone Map, list of Security and Financial firms.
3. World Atlas and/or Globe to check times, locations of major Markets.
4. Dictionary.
5. Financial Advisor from a local firm. (Do not have a guest presentation for students until the basic concepts of the "market" have been covered.)
6. Investment terms and definitions, a guide to Canadian stocks, bonds and other securities - plus an investment glossary. (1985). Toronto, ONT: The Canadian Securities Intstitute.

EXTENDED STUDENT OUTCOMES (may be used for discussion topics at home, and for students wanting more in-depth work or special projects)

1. To research why times vary around the world.
2. To present ideas about Greenwich Time.
3. To research why the computer can deal with stock trading around the world.
4. To compile a list with explanations of "partnerships" that exist at home, school, and extra-curricular activities.

LEARNING OUTCOMES 2. VOCABULARY

To decide on the appropriate meaning of a word for recognizing common properties among sets.

To deduce the similarities and differences among sets to appreciate the importance of each.

1. Stock, Bond, Interest, Dividends
2. Blue Chip, Speculative
3. Portfolio-Board Lots
4. Mutuals-Corporate Funding
International Affects
Diversification for Less Risk

TEACHER INSTRUCTIONS

GENERAL

1. Ask the students for reminders of two items from last class. (Name of book or group, meaning of stock and bond). (recall)
2. Allow students to choose the name, vote, and finish their decorations and titles. (decision making and consequences)
3. Suggest that students who investigated the meanings of the terms will be the ones to start discussion once book titles are completed. (recognition)
4. Have students write vocabulary and definitions as you cover them in class. For very young students who require a long time to print or write, you may prefer to hand out a typed sheet of the points in the lesson.

SPECIFIC

1. Before I call on the students who know about stocks and bonds, someone else tell us why the world stock markets are tied together? and how is this possible

Lesson 2.

when I go into the Financial Consultant to buy stock after school today? (review, synthesis)

2. Would the students who were able to do a bit of checking since last class tell us what a common stock is? (experiential, educated guessing, analysis)
3. What is a dividend? (conceptualization, evaluation) (Preferred stocks and dividends are not covered in this beginning Unit of study).
4. What is a bond? (experiential, educated guessing, analysis)
5. What is interest? (conceptualization, evaluation)
6. What is the difference between a stock and a bond? (analysis, synthesis, evaluation, judgement)

This is a very difficult question—even for adults! You may have to question, clarify, re-phrase and question several times before students are sure of the concepts.

7. What is the difference between money made from interest and money from dividends? (This is a very difficult question so time is needed for students to clearly understand.—analysis, synthesis, evaluation, judgement)
8. Because I own stock in a company, how do I make money with this kind of investment? (analysis, judgement)
9. Is there any reason that you can think of not to buy stocks in a company? (evaluation, conceptualization)
10. Can you think of reasons why I should buy stocks instead of bonds? (analysis, conceptualization, judgement)
11. Why would I want to buy bonds if I can make money in stocks? (comparison, analysis, judgement)
12. Does anyone know what "blue-chips" are? [see if someone knows that they are stocks] (experiential)

Lesson 2.

13. What does speculate mean? (vocabulary)
14. What would speculative investments mean? (association, judgement)
15. Would someone tell us what they think the word Portfolio means. Can you relate this to stocks and bonds? I'll give you a hint! A Portfolio has something to do with blue-chip and speculative stocks. (association, evaluation, judgement)
16. Why is a mixture of various types of investments so important in a Portfolio? (integration, conceptualization, judgement)
17. The Portfolio suggests you have several kinds of investments. The Financial Consultant has to do all of the work buying and selling these different stocks and bonds on an open market. Buying and selling in Board Lots helps to make this easier. Could someone tell us what a Board Lot is? (analysis, synthesis, integration, conceptualization)
18. Has anyone seen or heard T.V. advertisements about Mutual Funds? Does anyone know what mutuals are?

or a hint to help them if unable to answer...

Because some business are very successful, and some seem successful but end up just breaking even or losing money, can anyone suggest a way to invest money so that your investment consists of more profits to balance out some money lost? (comprehension, analysis, evaluation, judgement)
19. Because Mutual Funds involve large numbers of investors and much money, can you suggest why the International markets would affect mutual funds? (analysis, evaluation, conceptualization, causal relationships)
20. There is a word to describe the process of spreading out your investments, similar to spreading out your interests or activities so that you do a little bit in a lot of areas. I'm sure most of you go to school, do some sport, enjoy some music or other activity. You invest a little bit

Lesson 2.

in a broad range of companies and businesses. Does anyone know or can they guess the word? (knowledge, analysis, comparison, causal relationship)

21. Have any of you decided how you would invest? Can you list the types so that we can think about them?

At the beginning of the next class we will pretend to set up a small company to see how good we are as business people. (review, synthesis, motivation)

SAMPLE RESPONSES

1. Stock markets influence business around the world because materials such as coal and gas are sold for shipment elsewhere. United States uses much of what we produce and United States also uses much of what other countries produce. If Arabs cut off their oil to the U.S., this affects our oil production and sales.

The markets are tied together by time too through the use of computers. Our teacher can buy stocks today because the computers make buying and selling fast. Also, the computer terminals work day and night so that people dealing in the market can now get prices of stocks at different times around the world when it is night-time here.

2. A stock is a piece of paper you get as a CONTRACT for the amount of money paid, that represents a legal document that you bought and now OWN PART of a company. When the company is very successful, you get part of the PROFIT called a DIVIDEND. (Role play buying a stock with the name or initials of students as the company name.)

3. A dividend is the amount of money I receive out of the company profits after bills and other expenses are paid. Part of the profits in the company are re-invested so that my company can grow bigger and I earn more profits. The size of my dividend depends on the number of shares I have of that company. It also depends of how successful that company was. If the company lost money, I would not get a dividend.

Lesson 2.

4. A bond is a piece of paper that LEGALLY represents the amount of money you LOANED to a government or company, with the GUARANTEED promise the you will get back ALL of the money you loaned them PLUS INTEREST.
5. Interest is the amount of money that I am paid by the company or person who borrows and uses my money. The interest is usually a fixed rate set at the time I loaned my money. Interest is guaranteed to be paid.
6. When you buy a stock you buy part of a company and you can make lots of money or go broke depending on the success of the company. Thus, buying stock in a company is not a guarantee that I will make money. When you own stock you take a risk that the company will be successful. (If a student were to include the aspect of tax write-offs, then discuss that too.)

When you buy a bond, you loan your money to someone else and are guaranteed your money back plus a little extra for the use of that money. You may not make as much money as owning stock, but you are sure to be paid back plus interest extra.

7. Interest money is what I get for lending someone my money. To use my money, you have to pay me for the use of it and I am sure of getting this interest amount back when you pay back the loan. The interest is guaranteed.

Dividend money is the amount of money from company profits given to the shareholder in proportion to the number of shares he or she owns. These are called common dividends and are not guaranteed.

(Preferred shares and dividends are not covered in this introductory Unit.)

8. My stock is my contract that I own part of the company. When the company makes money, I get a profit that is a share of the company's profit. The amount of money I get is related to the amount of stock I own.

Lesson 2.

9. I wouldn't like to buy or own stock in a company that is not making money or that is going broke because I wouldn't make any money myself.
10. I like the idea of owning stocks in a company. I want to make lots more money than just a set interest rate. Owning a company is a risky business and I like this excitement. A company would be fun to own. I have to keep track of my stocks in case I want to sell. (The tax incentive may be mentioned so be prepared to discuss this.)
11. I would buy bonds because the money is only loaned and I will get back my original amount of money plus interest for loaning the money. I am sure of getting my money back plus making more. (Students have used this information to charge interest to siblings or parents.)
12. Blue-chips are common stocks of very well known successful businesses that have a long record of paying dividends in good and bad times.
13. Speculate means to think, surmise, guess, reflect.
14. A speculative stock would be one that you hope will be successful but that you are really guessing about. It is a risky investment.
15. Portfolio has to do with art. You carry all of your art drawings and things in it. You have all of your stocks and bonds in it. You have blue-chip and speculatives, bonds, stocks, a mixture in the Portfolio.
16. If I were to have only speculative stocks, I could go broke because they are risky. I need some blue-chip stocks for safety. A mixture gives me a balance.
17. A Board Lot must be a "chunk" of stocks that I can buy. I guess Board Lots are stocks that you order by 10 because money is in tens. (Board Lots are 100 stocks. The stocks are usually purchased in multiples of ten, sometimes five, and individually if the stock is very expensive.)

Lesson 2.

18. Mutual funds are funds invested as one company in many other companies in such a way that many types of business are represented and the investments are "safer" because of the wide range of stocks held. (Discuss the Principal Group disaster if the topic is raised)
19. Because much money is invested in many ventures such as oil and gas that are traded outside of Canada, the fluctuations or swings of the market also affect Mutuals.
20. Diversification. (Expand if students are interested, relating it to the Portfolio.)

MATERIALS/RESOURCES

1. Investment terms and definitions, a guide to Canadian stocks, bonds and other securities - plus an investment glossary. (1985). Toronto, ONT: The Canadian Securities Intstitute.
2. Dictionary
3. Booth, A. (1963). How to invest in mutual funds. Toronto, ONT: Maclean-Hunter Publishing Company Limited.

EXTENDED STUDENT OUTCOMES

1. To research Canada Savings Bonds, issue dates, interest rates, how many people invest.
2. To document the various banks in your locality and to list the price of common shares. An attempt may be made to explain the differences among prices and dividends of the last reporting of bank stocks.
3. To contact Consumer Affairs for information on how to begin a business for presentation to the class.
4. Find out what stocks are held by a mutual fund such as the Royfund.

LEARNING OUTCOMES 3. STOCK EXCHANGES

To recognize classes of information as a basis for interpreting the information from a different perspective.

1. T.S.E. (300)
2. DOW (500)
3. Canadian/International Exchanges

TEACHER INSTRUCTIONS

GENERAL

1. Allow the class to divide into equal groups of three or four per group. Give sufficient instructions so that each group can form a "business" with name, type (bank, food, oil...)
2. The business game should be a maximum of 20 minutes. Encourage each group to be creative...outline what they wish to sell, produce, trade...where they will get their money to start...and allow a presentation from each group. The key is for the other group or groups to suggest improvements to the business. Decide the best business for investment today by class vote. (constructive criticism, peer interaction, critical thinking)
3. Ask the students what ideas from last class were left out of the business game so that a discussion for review may proceed.
4. Have students write down vocabulary and notes as you proceed in the lesson.

SPECIFIC

1. The T.S.E. is very important to the market. Who knows what this means? (knowledge, experiential, background enrichment)

Lesson 3.

2. What does the DOW mean? (comprehension)
3. What would a large increase in the T.S.E. and DOW mean to the stock market and investors? (synthesis, analysis, evaluation)
4. What does the fluctuation in the T.S.E. and DOW mean to you as an investor? (synthesis, application, evaluation)
5. Can you name one important Canadian Exchange and one very important International Exchange?
6. Can you suggest reasons why we should worry about International Exchanges?
7. Now that we know about time, stocks and bonds, the stock exchanges, what do you think we need to look at in our class next day? (analysis, evaluation, forecasting).
8. Next day we will look at one page of information that will tell you what has happened to one stock over the past year, maybe we'll even find one over 2, 3, years. Wouldn't it be exciting to see information on a stock on one page that tells us about it over 5 years? (motivation, conceptualization)
9. Those of you who take a newspaper in your house, would you please do all of us a favour. Please bring the section of the paper that has the lists of stock prices and quotes. If you are not sure, ask your parents, or bring the whole paper. (responsibility, self-discipline, group sharing)

SAMPLE RESPONSES

1. The T.S.E. is an index consisting of a cross-section of stocks from four major areas: 1) Industrials such as: banks, foods, paper and forest, real estate, and utilities. 2) Gold. 3) Base Metals, and 4) Western Oils. Together about 300 different stocks are put together as a group. There is a mathematical formula to figure out the total points that the T.S.E. has increased or decreased that day.

Lesson 3.

2. The DOW is named after the man who designed the Dow Jones Industrial Average in the United States in the early 1900's. This index consists of a wide selection of about 500 stocks. It is an important index that is used daily by stock consultants.
3. When the indices go up it means that the prices of stocks are going up.
4. When the T.S.E. and DOW go up I would have to look at the stocks I own to decide whether I should sell at the increased price for a profit, or to hold on. If the T.S.E. and DOW go down I should consider selling before I lose more money on decreasing prices of my stocks. It may also be a good time to buy when the stock prices are low.
5. An important Canadian Exchange would be the one in Montreal or Toronto. A very important International Exchange would be the one in Tokyo. (accept others with reasons until you get the correct ones.)
6. We must be involved with International Exchanges because our economy is linked so closely with what happens around the world.
7. (Answers will be many and varied.) We need to know how to understand information about the stocks to be able to choose what to buy.

MATERIALS/RESOURCES

1. Dictionary
2. List of T.S.E. and DOW indices as an extra hand-out.

EXTENDED STUDENT OUTCOMES

1. Choose five stocks from the T.S.E. for a balanced portfolio and explain why.
2. Choose five stocks from the DOW for a balanced portfolio and give reasons why they may be different from the T.S.E.

LEARNING OUTCOMES 4. GRAPHOSCOPES

To recognize components of a figural representation to comprehend the consequences of the changes.

1. Market at a Glance
2. Zero Line
13 Weeks, 52 Weeks, 5 year Differences,
Evaluation

TEACHER INSTRUCTIONS

GENERAL

1. Praise those who remembered to bring a newspaper. Students are to store them on one side until needed later in class.
2. Hand out Sample Graphoscope.

SPECIFIC

1. Look at the Sample Graphoscope page. Would someone define what a graphoscope is? (analysis, interpretation, verbalization)
2. This is a very difficult question so think carefully. Can anyone figure out what the ZERO LINE means? (comprehension, interpretation, conceptualization, evaluation)
3. What does the top graph tell us? (comprehension, interpretation, evaluation)

Meanwhile, the T.S.E. has moved up and down and ended around 1.3 percent above the starting point of graphing.
4. Remember last class I asked if we could look at a stock over a five year period? What does the bottom graph tell us about the Market? (recall, analysis, interpretation, evaluation)
5. Take a copy of the local newspaper and look up and note which section is for the financial pages.

Lesson 4.

6. Notice the way the stocks are listed. With a partner, see how many items you can list that are pieces of information about stocks. (peer interaction, cooperation, analysis, interpretation)
7. Now that you know more about reading the financial pages of the paper, see if you can pick out stocks you may wish to buy and keep track of the prices until next class. I will bring a paper each day for those who wish to check during recess or lunch hour. (motivation, self-discipline, responsibility)

SAMPLE STUDENT RESPONSES

1. A graphoscope is a chart of one or more graphs showing the Market swings up and down over a certain length of time such as 3 months, a year, or more so you are able to see in an easy, quick way what the Market has been doing.
2. The zero line is the starting point for graphing the period of time for the Dow and T.S.E.
3. In the last three months the Stock Market DOW has dropped three percent, has moved up and down to end up about 4.5 percent above the starting point.
4. The Market indices of the DOW and T.S.E. can be shown over a five year period. not just for one stock. The bottom graph shows both the DOW and T.S.E. indices starting close together, but the DOW Jones ended much higher than the T.S.E.
5. No answer applicable.
6. (Answers will vary according to the local paper.)
The paper will show quotations for:
 1. Industrials which involve most of Canadian businesses, Gold, Base Metal, Western Oil, Commodities, and Money.
 2. Stocks on the Exchanges in United States, Canada. The Canadian Exchange section may list Montreal, Toronto, Winnipeg, Vancouver and Calgary.

Lesson 4.

3. Listings include names alphabetically with the year high/low, stock, and prices at the close of the date listed: high/low, calls/latest price, net change, volume sold.

MATERIALS/RESOURCES

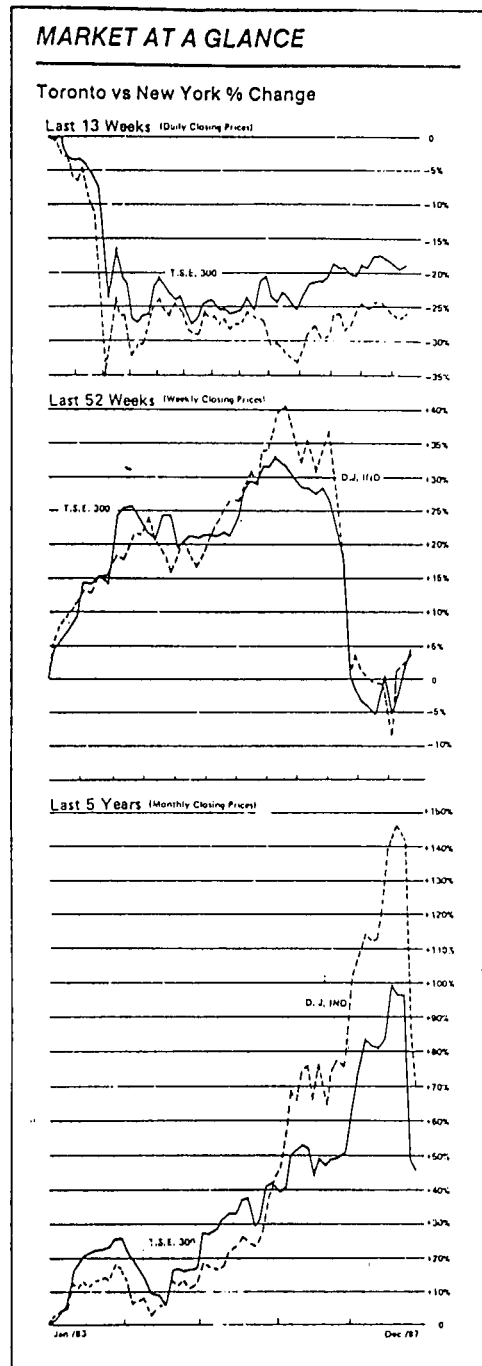
1. Newspaper
2. Canadian daily stock charts, with expanded coverage for the short term trader. (1988). Toronto. ONT: GPS Printing and Publishing Ltd.
3. Daily action stock charts. (1987). New York, N.Y: Standard & Poor's Corporation.
4. Graphoscope, January, 1988. Toronto. ONT: GPS Printing and Publishing Ltd.
5. The Oct.19th perspective. (1987). Toronto, ONT: Midland Doherty Limited.
6. 2000 A.D. a guide to financial awareness. (1986). Edmonton, Alberta Consumer and Corporate Affairs.
7. Dictionary

EXTENDED STUDENT OUTCOMES

- . None.

Lesson 4: GRAPHOSCOPES

SAMPLE GRAPHOSCOPE



LEARNING OUTCOMES 5. LEGEND CHART

To remember some of the important aspects of a figural representation for interpreting some of the meaningful connections among the elements of information.

1. Title and Symbols
2. Twenty-Five Items

TEACHER INSTRUCTIONS

GENERAL

2. Hand out Sample Legend Chart.

SPECIFIC

1. Class please turn your Legend Chart face down on your desks. I would like you to tell me what a "legend" is? (knowledge, analysis, judgement, inter-relationship, application)
2. The legend on a map is similar to a legend chart for stocks. Can you explain what the Legend Chart you have on your desks might mean? (interpretation, deduction, judgement)
3. Students now look at the Legend Chart and tell the name of the company and the meaning of the letters ABC? (observation, deduction, evaluation, judgement)
4. Students look at the Legend Chart:
 1. Find #1 circled on the graph.
 2. Check it with the #1 feature written below.
 3. What does this mean? (relationship, deduction, judgement)

Those who need help, please raise your hand and one of the other students or I will help you find the place. (interaction, peer teaching).

Lesson 5.

5. Repeat instructions #2 for each of the 25 numbers. (As this exercise is to familiarize students with looking at a whole graph of a stock, you can move quickly through the more complicated numbers such as #18, but spend time on the skill of reading a graph.)

SAMPLE STUDENT RESPONSES

1. A Legend may be a story such a legend about Native people. I have seen legends on maps in Social Studies. It's a little table on a map that lists and explains the symbols or colours used.
2. The legend should tell us about parts of the graph, and explain what they mean so we can read the stock information easier.
3. The name is ABC Company, and it would be listed in the paper or on the Stock Exchange by the letters ABC.
4.
 1. #1 circled is on the top right corner of the graph pointing at the number 140.
 2. The written feature means the stock price is in dollars per share.
 3. Putting the two together means that the graph shows the ABC Company shares show a graph that goes up to \$140.00 per share.
5. No answer other than the example in #2.

MATERIALS/RESOURCES

1. Sample Legend Chart.
2. Canadian daily stock charts, with expanded coverage for the short term trader. (1988). Toronto. ONT: GPS Printing and Publishing Ltd.
3. Daily action stock charts. (1987). New York, N.Y: Standard & Poor's Corporation.

Lesson 5.

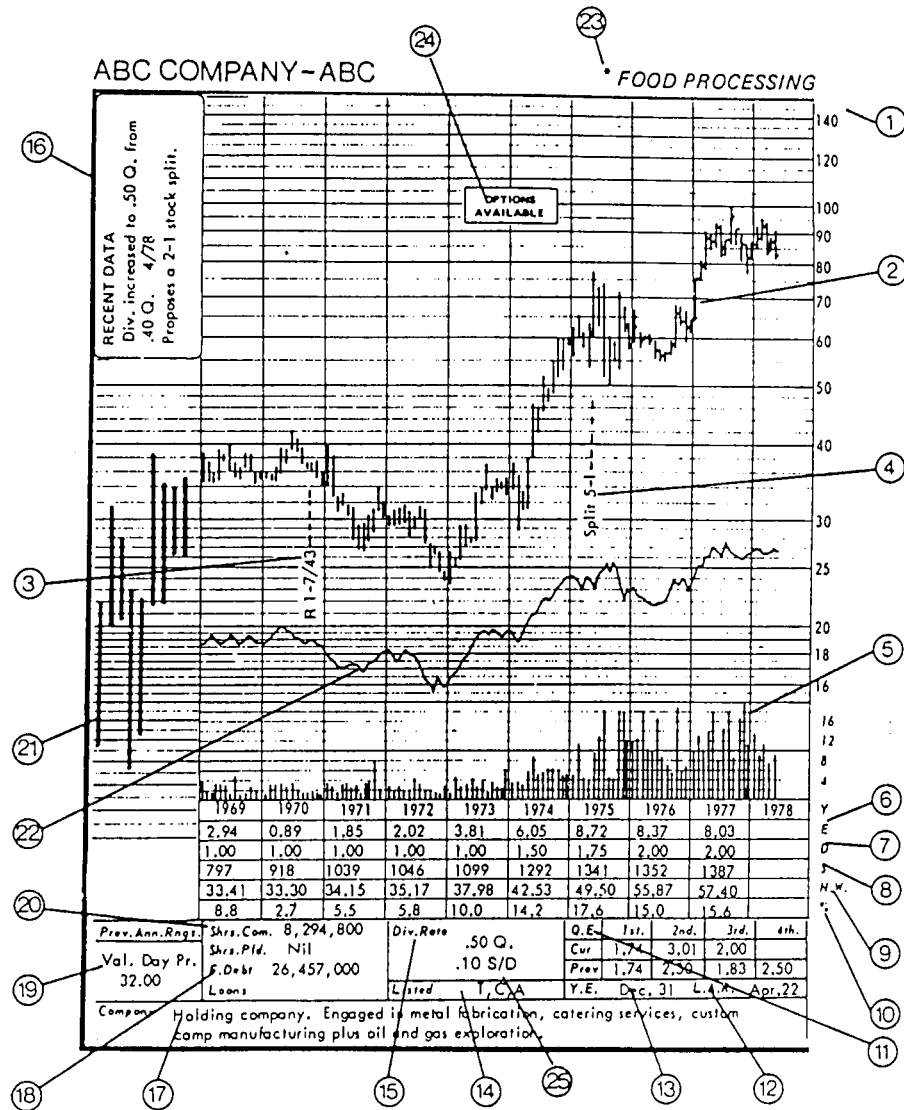
4. Graphoscope, January, 1988. Toronto, ONT: GPS Printing and Publishing Ltd.
5. Weekly stock charts, Canadian and U.S. industrial companies. (1988). Vancouver, B.C.: Mitchell Press Limited.
6. Dictionary

EXTENDED STUDENT OUTCOMES

1. Compare two blue-chip stocks from the same category, (such as a toy company or a pop company) using a Graphoscope or Weekly Stock Charts, and present this to the class.

Lesson 5: LEGEND CHART

SAMPLE LEGEND CHART



Each Chart Includes These Features:

- | | | |
|---|--------------------------------|--|
| 1. Stock Price – Dollars Per Share | 11. Interim Earnings | 21. Annual Price Ranges |
| 2. Monthly Price Ranges | 12. Date of Last Annual Report | 22. Relative Strength to T.S.E. 300 Comp. |
| 3. Rights Issued | 13. Year End | 23. Industry Classification (Asterisk Indicates Stock is Included in the T.S.E. 300) |
| 4. Stock Split | 14. Where Listed | 24. Options |
| 5. Volume of Sales in 1000's | 15. Latest Dividend Data | 25. Special Dividends |
| 6. Earnings Per Share, Profit or/(Loss) | 16. Recent Data | |
| 7. Dividends Per Share | 17. Company Description | |
| 8. Sales in Millions | 18. Funded Debt | |
| 9. Net Worth Per Share | 19. Valuation Day Price | |
| 10. % Earned on Net Worth | 20. Outstanding Shares | |

LEARNING OUTCOMES 6. CHOOSING A STOCK

To comprehend the applicability of semantic and figural information for judging the consequences of the requirements.

To remember the similarities and differences of components of the sets to produce elementary ideas appropriate for making a choice of sets.

1. Paper Money
2. Commission
3. Buy/Sell Timeline
4. Time to Chart

TEACHER INSTRUCTIONS

GENERAL

1. Make up a "bank" of monopoly money in denominations of \$1.00-\$1,000.00 for distribution to students.
2. Prepare a time-line for students to "buy and sell" their stocks.
3. Explain that each will have to "sell" the two holdings before the semester ends.
4. Do a sample calculation of Stock Buy on the blackboard or ask a student to try it while the class helps if necessary.

SPECIFIC

1. Each of you will receive \$2,000.00 in a lump sum.
2. You can buy two stocks only. You are expected to pay the commission charges for buying and selling which is a flat rate of 5% for the \$2,000.00. Would someone work that out and show us how to do this please. (recall, comprehension)

Lesson 6.

3. Remember our discussion on "board lots" and the minimum suggested to purchase. Check your notes if you are unsure. (recall, organization)

(Students should calculate a minimum of 5 share lots for any stock they "buy".)

Sample Buy Calculation

Step One Alberta Energy at \$18.00/sh.

Buy 60 shares \$18.00/share = $60 \times 18 = \$ 1080.00$
Flat Commission 50.00
Total Cost = \$ 1130.00

Step Two

Cash Total to buy shares = \$ 2000.00
Cost of Alberta Energy 1130.00
Difference left to buy second Stock 870.00

Step Three Sears Canada Stock at \$12.00/sh.

Cash left divided by Share Cost to nearest amount
 $870 \text{ divided by } 12 = 72$
Estimate to buy 70 shares at \$12 = \$ 840.00
Flat Commission 50.00
Total Cost = 890.00

Problem There is only \$870 left in the total

Solution

Estimate to buy 65 shares at \$12 = \$ 720.00
Flat Commission 50.00
Total Cost = 790.00

Total Shares + Commission $1130 + 790 = \$1920.00$
Balance Left on Hand 80.00

4. I will act as the Banker and Financial Advisor.
5. Here are the Graphoscope and Weekly Stock Charts. Look through them, examine the graphs, and choose two stocks to buy. Check in the newspaper to make sure the stock is listed. Why would I suggest that this is important? (analysis, synthesis, evaluation)

Lesson 6.

6. When you have decided on two stocks, let me check them for you.
7. Take down the following for reference:
Today's date, stock names, high, low, and close for each.
8. When all stocks have been chosen, what do you think will be our next activity? (conceptualization, prioritizing, organization, motivation)
9. In the meantime this week, is there anything else to do? (synthesis, evaluation, judgement)

SAMPLE STUDENT RESPONSES

1. No answer applicable.
2. Student will figure 5% of 2,000 = \$100. or
Student may figure 5% of 1,000 times two "buys".
3. Board lots start at 100 shares but stocks can be sold in smaller amounts.
4. No answer applicable
5. You want us to have a stock listed in the newspaper so that we can keep track of our stock and get the daily or weekly prices. (This is a very important strategy for students.)
- 6-7. No answer.
8. Next day we can buy our stocks and start to graph them.
9. Keep track of our stock prices.

MATERIALS/RESOURCES

1. Weekly stock charts, Canadian and U.S. industrial companies. (1988). Vancouver, B.C.: Mitchell Press Limited.

Lesson 6.

2. Weekly stock charts, Canadian resource companies. (1988). Vancouver, B.C.: Mitchell Press Limited.
3. Financial Post or Globe and Mail
4. How to invest your money in stocks and bonds. (1976). Toronto, ONT: The Canadian Securities Institute.
5. Investment comment (1986). Toronto, ONT: Richardson Greenshields of Canada Limited.
6. Staby, E.J. (1970). Stock market trading, point and figure investing made easy. New York, NY: Cornerston Library Publications.

EXTENDED STUDENT OUTCOMES

1. Plan a portfolio of five "balanced" stocks and give reasons for the choice.
2. Study the sample portfolio listed in the Financial Post and give reasons for the Advisor's choices.
3. Graph your two chosen stocks back one year. Discuss any changes you find in pricing.

LEARNING OUTCOMES 7. CHARTING A STOCK

To remember the figures and symbols for drawing connections between and among them as a basis for logical or causal extrapolation.

1. Graph
2. Ranges
of the stocks
on the graph

TEACHER INSTRUCTIONS

GENERAL

1. Lesson 7 charting will continue until students Sell.
2. Have graph paper on hand for students' use.
3. Use an overhead or blackboard to demonstrate graphing.
4. Select a volunteer or mentor to help students figure out stock ranges, the price range for the actual graph, and the process of graphing is recommended.
5. Once the graphs have been started, the actual financial transactions can fill in the time as students are ready to do business. (This is not the same process as buying on the Market, but it facilitates expedient use of time in the classroom.)
6. Have "Stock" blanks that approximate a real stock on hand to sign, date, and process as you would expect to receive when actually buying real certificates.

SPECIFIC

1. At the end of last day you told me that you must learn how to graph a stock so that each of you can graph and update the prices of your stocks each class.
2. We will use the example of Alberta Energy listed at:

52 week range: high 19.5, low 13
price today: high 19.5, low 18.5 average 19.
3. What would be a reasonable range to consider on a graph if the stock has gone from 13 to 19.5 in a year?
4. The stock range is $19.5 - 13 = 6.5$ points in one year. What would you consider to be a safe range to put on your graph considering this 6.5 point difference.?
5. What range would we use if we take the suggestion of adding 15 points to the high and low?
6. How should we design the graph? (Teachers should work out the increment amounts for the graph paper they are using and check that the students have marked it properly. Use resource materials to illustrate what is necessary.)
7. Because the semester ends in 10 weeks, what is the next problem we must solve for the graph?
8. Now that we have practised with a sample stock, each of you begin figuring out your own stock graphs. Put your hand up for help if you get mixed up. As this is very complicated, do help each other.
9. Is there anything we have forgotten to put on the graph?

10. Once you have the graphs done for your two stocks, please work out the amount of stock you can buy with a commission cost of 5%. Try to use up as much of the \$2,000.00 as possible when you calculate out what you can buy with the money. (The older students will figure this out for the teacher to check. The younger students will need help individually to understand how to calculate.)

SAMPLE STUDENT RESPONSES

- 1-2. Answer not applicable.
3. We should consider some range with 20 in the middle.
4. I think a range of 15 points on the top and bottom would be enough.
5. Let's make the range $19.5 + 15 = 34.5$, say 35 high.
Let's make the range 13 - 15: we can't do this, so let's make the graph start at \$1.00 and increase to \$40.00.
6. Teachers work with the students to draw an example graph on the board.
7. We need to figure out how to graph for the next 8 weeks. This will allow us two weeks to sell our stocks. (Teachers should help students to divide the horizontal graph line into eight segments that are compatible with the vertical axis of stock price.)
8. Answer not applicable.
9. We have to put a heading on the graph the same way as the graphs we looked at in the Weekly Stock Charts, including the symbol initials, and our own names.
10. Answer not applicable.

MATERIALS/RESOURCES

1. Graphoscope
2. Weekly stock charts, Canadian and U.S. industrial companies. (1988). Vancouver, B.C.: Mitchell Press Limited.
3. Weekly stock charts, Canadian resource companies. (1988). Vancouver, B.C.: Mitchell Press Limited.
4. Financial Post or Globe and Mail
5. Materials for graphing and calculating.

EXTENDED STUDENT OUTCOMES

1. Design a way to graph two stocks on the same graph sheet.
2. Try to figure out a method to add the T.S.E. or DOW or BOTH to your own graph for a comparison.

LEARNING OUTCOMES 8. FIELD TRIP STUDY

To judge which objects and ideas during an educational experience could best be utilized or redefined for requirements in the classroom.

1. Tour of the Premises
2. Idea Exchange with the Professional

TEACHER INSTRUCTIONS

GENERAL

1. Organize the field trip well in advance.
Invite volunteer parent helpers if appropriate.
2. Acquaint the financial consultant with the depth of study of the students. Facilitate the use of a computer to check their stocks quotes.
3. Instruct students to take their stock booklets and graphs.
4. Visit the Stock Market Facility beforehand.

SPECIFIC

1. Did today's computer quotes of stocks match with your last graphed quotes? (application, comparison)
2. List and give the reasons for the presentation of new and most interesting ideas. (analysis, interpretation, evaluation)
3. List the objects or facilities that you found most beneficial. (synthesis, relationships, judgement)

SAMPLE STUDENT RESPONSES

1. Answers not applicable here.

MATERIALS/RESOURCES

1. The Stock Market facility and consultant as guide.
2. Resource materials supplied by the Advisor (most firm personnel will have a file of resources for the student to have)

EXTENDED STUDENT OUTCOMES

1. To profile the career of a Financial Advisor to present in class, to gain a class consensus of the pros and cons of such a profession.
2. To study the computer symbols of stock listings.

LEARNING OUTCOMES 9. SELL

To interpret the figuaral sets for applying them graphically to paper.

To generate relations among numerical items for arriving at final amounts that can be decided mathematically.

1. Percent Gain/Loss
2. Chart

TEACHER INSTRUCTIONS

GENERAL

1. Have the daily Newspaper on hand for this class.
2. Help students prioritize a list on the board of activities for today's class.
3. Illustrate an example of calculating gain/loss on the blackboard, or have a student attempt this with class help.
4. Encourage the older students to help the younger ones to calculate their gains or losses.
5. Collect all of the graphs as they are finished.
6. Outline procedures for the last class next day.

SPECIFIC

1. I certainly enjoyed the field trip last day. Did any of you tell your parents or friends about it? (communication)

Are there any additional comments about the our visit to the Stock Exchange? (review, evalutaion, judgement)

Lesson 9.

2. This class will be quite busy today. Will you suggest what you want to do and how we will manage all of the activities, and I will make a list on the blackboard. (interaction, organization, collaboration)
3. Today you have to sell your stocks. What must you do? (conceptualization, organization)

Sample Calculation: (for a loss)

Alberta Energy: bought 60 shares at \$18.00 =
\$1080.00

720.00 sold 60 12.00 =

1st method: Difference 60 x 6.00 loss =
\$360.00

2nd method: Difference 1080 - 720 =
\$360.00

Total Loss = Selling Loss + Commission Charges.

4. When all of you have finished with your graphs, would one of you please collect them and hand them to me. The reason I want your graphs is very special.
5. Next day, our last class together, you will have time to answer a very quick quiz about some of the things you have learned in this class. This will not be used as a mark by me, but it will allow me to judge how much you have understood, and perhaps help me to make the Unit Lessons even better for the next group of students. This is why I want you to do your best on the quiz.
6. While you are doing the quiz, I will be working very hard too making up a Composite Chart of all of your graph results so that we can see it together as a class. I can hardly wait to see on paper how your stock gains and losses worked out. I hope that all of you made lots of money, but I hope the graphs show a lot of variation because this is exciting to see. Next week after the quiz, we will find out!

SAMPLE STUDENT RESPONSES

1. Answers will vary, but the interesting key will be to hear if some shared the experiences with parents and friends.
2. We have to find the price today. We have to mark our charts. We have to calculate the gains or losses.
3. First, I need the price of my stocks. I will need help figuring out the gains and losses. I want to finish my graph. I want to get my "money" back.
- 4-6. No answer applicable.

MATERIALS/RESOURCES

1. Local Newspaper

EXTENDED STUDENT OUTCOMES

1. To make a Composite Chart of the students' results.

LEARNING OUTCOMES 10. EVALUATION/COMPOSITE CHART

To estimate the appropriateness of all of the sets for judging the success of individual results.

1. Influences
2. Evaluation
 - Student Instrument
 - Teacher Instrument

TEACHER INSTRUCTIONS

GENERAL

1. Have the "quick quiz" ready.
2. Summarize the class activity routinely so that students will not become overly excited about the composite graph results.
3. Administer evaluation instrument to students allowing sufficient time for all to finish.
4. Have a Composite Graph copy for each student to hand out after the quiz.
5. Utilize an overhead copy of the Composite Graph for demonstrating and discussing student comparisons.
6. Facilitate discussion regarding the results of the Composite Graph.
7. Mark Student Instrument. Do a self-evaluation of its content validity. (You may need it for a course mark in which case students should be informed at the beginning of this Unit.)
8. Complete the Teacher Instrument if not done beforehand. Use both instruments equally to evaluate student results and the success of the Unit.

SPECIFIC

1. To begin, I would like to review what we have to do today.
2. I will hand out the quick quiz that I mentioned last day. Remember, this quiz is not for a course mark, but it is very important to me. How well you do on this test will help me to improve the Unit and this quiz for the next group of students, so, please do your very best work. Please sit quietly or draw a picture, write a poem, on the spare paper while waiting for all to finish.
3. After the test we will review the Composite Graph that I have ready.
4. Please pass along the Composite Graph sheets so that all of you have one to keep. Put your name on it now.
5. This is the exciting part--let's look at the graphs.
6. What are some of the outstanding features?
7. Answers will vary, but students will pick out high gains and losses, and comment on how well or poorly they, themselves, and others have done.
8. You know a lot about the stock market: can you suggest why your stocks acted the way they show on the graph?
9. Answers will involve market conditions, take-overs, the trade bill, possibly an election. Encourage with probing questions what the evaluation is in their own minds.
10. We have just a short time left. I want to know in open discussion what you enjoyed in this class? What was the most interesting item you learned? What could we add to the Unit that would improve it? Is there anything you think we should leave out? Because we focus on the processes in learning, how many students would make up an ideal class? (The answer was six.) How much did you get family and friends involved? Would you take an

Lesson 10.

"advanced" course if it were offered next year?
(All students answered yes to this.) I really enjoy
the Stock Market and I want to know what you like
about the Stock Market and investing?

SAMPLE STUDENT RESPONSES

Covered in the above.

MATERIALS/RESOURCES

1. The Evaluation Instrument
Objective Student Instrument
Subjective Teacher Instrument
2. The Composite Graph Results

EXTENDED STUDENT OUTCOMES

None.

NAME _____ GRADE _____ DATE: _____

INTRODUCTION TO THE STOCK MARKET AND INVESTING

WRITE THE NUMBER OF THE WORD ON THE LINE FOR THE CORRECT DEFINITION:

1. Tokyo _____ investments that are considered safe to buy.
2. Computers _____ shows swings up and down.
3. Interest _____ location of a Canadian Stock Exchange
4. Dividend _____ the charge for buying or selling
5. Stock _____ the percentage gain or loss for a group of stocks.
6. Bond _____ money out of company profits paid to share-holders.
7. Blue-chips _____ United States Industrial Index of 500 stocks.
8. Speculative _____ Toronto Stock Exchange Indices.
9. Portfolio _____ a collection of investments.
10. Composite Chart _____ a guaranteed amount of money paid to you for loaning money.
11. T.S.E. _____ investments that are risky to buy.
12. DOW Jones _____ where % calculations begin
13. Calgary _____ a legal contract that says you own part of a company.
14. Stock Graph _____ a legal contract that you have loaned money that will be paid back to you.
15. Zero Line _____ allow selling around the world with no problem of the time zones.
16. Commission _____ the location of a major world Stock Exchange.

INTRODUCTION TO THE STOCK MARKET AND INVESTING

TEACHER JUDGEMENT FORM

STUDENT _____ GRADE _____ DATE _____

Depth of Understanding

Understands concepts	5	4	3	2	1	
Understands background knowledge	5	4	3	2	1	20
Makes decisions	5	4	3	2	1	
Contributes in class discussion	5	4	3	2	1	

Creativity and Awareness

Original approach to the topic	5	4	3	2	1	
Originality of demonstration	5	4	3	2	1	
Presentation of Information	5	4	3	2	1	25
Graph layout logical, self-explanatory	5	4	3	2	1	
Motivation and self-discipline	5	4	3	2	1	

Cooperation and Interaction

Worked well with others	5	4	3	2	1	
Provided help to others	5	4	3	2	1	15
Responsibility to the class	5	4	3	2	1	

Skills

Ability in gathering information	5	4	3	2	1	
Ability in organizing information	5	4	3	2	1	15
Ability in explaining principles	5	4	3	2	1	

Class Documentation

Comprehensiveness of class research	5	4	3	2	1	
Organization of information	5	4	3	2	1	
Recording information	5	4	3	2	1	25
Presenting generalizations	5	4	3	2	1	
Appropriate applications	5	4	3	2	1	

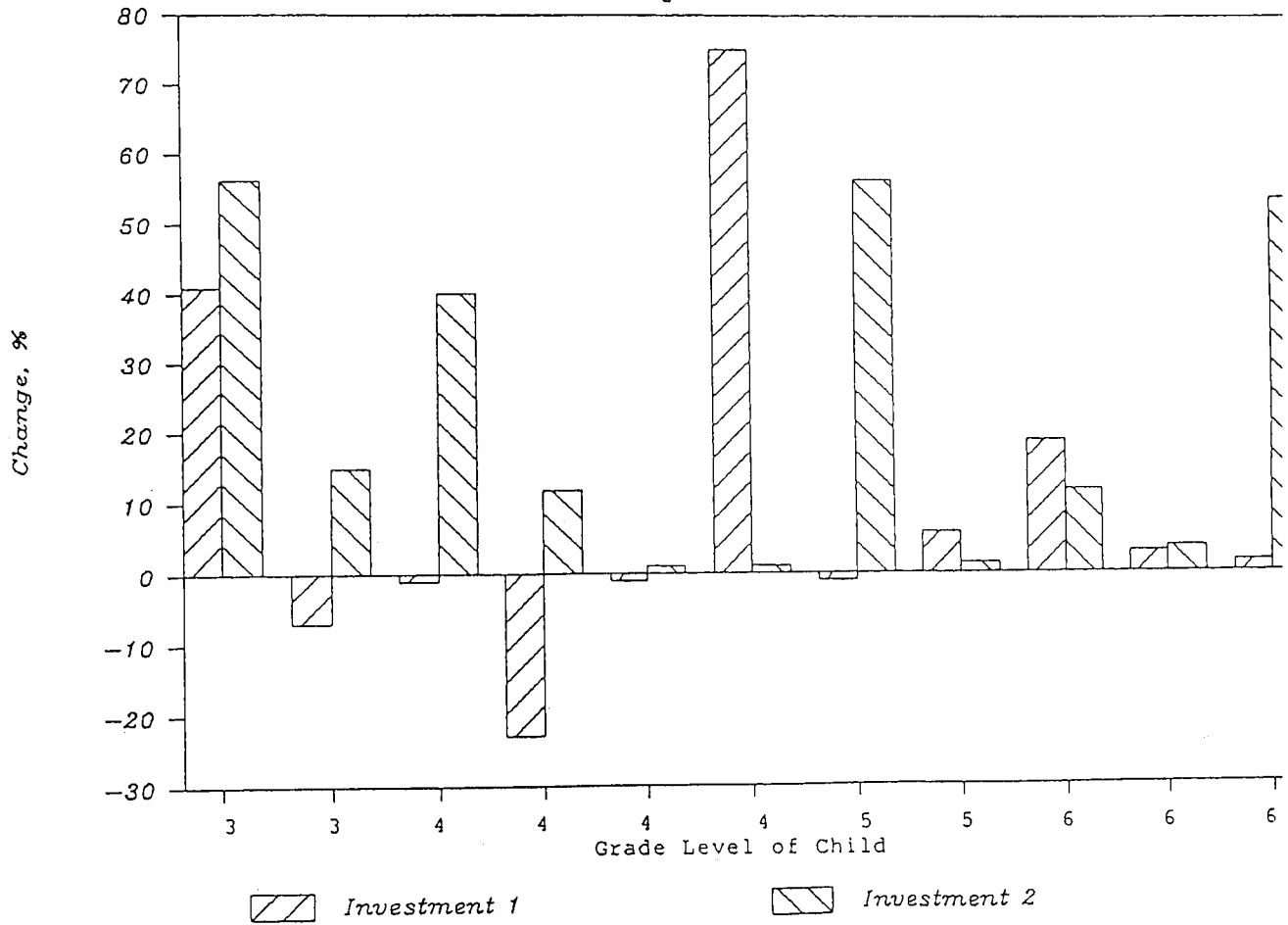
OVERALL TOTAL

100

SAMPLE COMPOSITE CHART

Composite results for 11 children

Price change over The Unit



REFERENCES

- Booth, A. (1963). How to invest in mutual funds.
Toronto, ONT: Maclean-Hunter Publishing Company Limited.
- Canadian association of investment clubs. nd.
First Canadian Place, P.O. Box 122,
Suite 3700, Toronto, Ontario, M5X 1E9.
- Canadian daily stock charts, with expanded coverage for the short term trader. (1988). Toronto, ONT: GPS Printing and Publishing Ltd.
- Canadian market madness scholarship tournament. (1985).
(Elementary and Secondary Divisions).
Toronto, ONT: Maclean Hunter Limited.
- Canadian reseach report. (1986). "Stock comments."
Winnipeg, MAN: Richardson Greenshields of Canada Limited.
- Daily action stock charts. (1987). New York, N.Y:
Standard & Poor's Corporation.
- Dictionary - of your choice.
- Graphoscope, January, 1988. Toronto, ONT: GPS Printing and Publishing Ltd.
- How to invest your money in stocks and bonds. (1976).
Toronto, ONT: The Canadian Securities Institute.
- How to read financial statements. (1980). Toronto, ONT:
The Canadian Securities Institute.
- Investment comment (1986). Toronto, ONT: Richardson Greenshields of Canada Limited.
- Investment services - within your local area.
(may be listed under Stocks and Bonds).
- Investment terms and definitions, a guide to Canadian stocks, bonds and other securities - plus an investment glossary. (1985). Toronto, ONT:
The Canadian Securities Intstitute.
- Newscard -see Financial Post Information Services.
- The canadian securities course. (1971). Toronto, ONT:
The Canadian Securities Institute.

The financial post. Canada's national business newspaper.
Toronto, ONT: The Financial Post. (current issues).

The financial post information service. (1986).
Toronto, ONT: Maclean Hunter Limited.
(provides a "Newscard" on major companies).

The oct.19th perspective. (1987). Toronto, ONT:
Midland Doherty Limited.

Staby, E.J. (1970). Stock market trading, point and
figure investing made easy. New York, NY:
Cornerston Library Publications.

Stock talk. (nd). a publication from the research
division of Richardson Greenshields of Canada Limited.

Telephone Book - of your area.

The Toronto stock exchange, toward an ideal market. (1983)
Toronto, ONT: The Toronto Stock Exchange.

2000 A.D. a guide to financial awareness. (1986)
Edmonton, Alberta Consumer and Corporate Affairs.

The value line investment survey. (1988). New York, NY:
Value Line, Inc.

Weekly stock charts, Canadian and U.S. industrial
companies. (1988). Vancouver, B.C.:
Mitchell Press Limited.

Weekly stock charts, Canadian resource companies.
(1988). Vancouver, B.C.: Mitchell Press Limited.