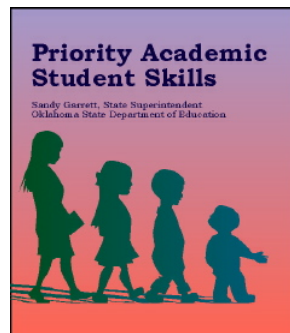


# CORRELATION OF



# PASS Standards



*to*

**Invest Ed**<sup>TM</sup>  
*Students Tracking and  
Researching the Stock Market*

[www.investedok.org](http://www.investedok.org)

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## LANGUAGE ARTS – Grade 10

### STANDARD 1: Vocabulary

3. Use reference material such as glossary, dictionary, thesaurus, and available technology to determine precise meaning and usage.
5. Use word meanings within the appropriate context and verify these meanings by definition, restatement, example, and analogy.

#### *Project*

Teachers are provided handouts of financial and investment glossary sites for students. At workshops teachers visit various glossary sites. Students research, analyze, document, and write a detailed report of their process. (p. 39, Appendix O)

### STANDARD 2: Comprehension

1. Literal Understanding
  - a. Identify the structures and format of various informational documents and explain how authors use the features to achieve their purpose.
2. Inferences and Interpretation
  - b. Draw inferences such as conclusions, generalizations, and predictions, and support them with text evidence and personal experience.
3. Summary and Generalization
  - c. Summarize and paraphrase complex, implicit hierarchic structures in informational texts...
4. Analysis and evaluation
  - a. Discriminate between fact and opinion and fiction and nonfiction.

#### *Project*

Students research magazines, newspapers, reference materials, and online information. They log their research and cite references for use in their final reports. The ability of students to clarify and evaluate information will be reflected in the quality of their final reports. (p. 28, Appendix E; pp. 32-38, Appendices I – N)

### STANDARD 4: Research and Information

1. Accessing Information
  - a. Access information from a variety of primary and secondary sources.
  - b. Skim text for an overall impression and scan text for particular information.
  - c. Use organizational strategies as an aid to comprehend increasingly difficult content material (e.g., problem/solution, sequential order...)
2. Interpreting Information
  - a. Summarize, paraphrase, and/or quote relevant information.
  - b. Determine the author's viewpoint to evaluate source credibility and reliability.
  - c. Synthesize information from multiple sources to draw conclusions that go beyond those found in any of the individual studies.

### *Project*

Students initially spend a minimum of two weeks researching magazines, newspapers, reference materials, and online information. However, throughout the semester most students continue researching. Students search for information on topics including but not limited to company's history, management, return on equity, financial statements, cash flow, debt, and long-term growth potential. Students access numerous online publications; they are required to cite a minimum of five sources. (p. 26, Appendix C; p. 31, Appendix H)

## **WRITING/GRAMMAR/USAGE and MECHANICS – Grade 10**

### STANDARD 1: Writing Process

1. Use a writing process to develop and refine composition skills. Students are expected to:
  - a. use prewriting strategies to generate ideas such as brainstorming, using graphic organizers, keeping notes and logs.
  - c. organize and reorganize drafts and refine style to suit occasion, audience, and purpose.
  - d. proofread writing for appropriateness of organization, content, and style.
  - e. edit for specific purposes such as to ensure standard usage, varied sentence structure, appropriate word choice, mechanics, and spelling.
3. Demonstrate organization, unity, and coherence by using transitions and sequencing.
4. Use precise word choices, including figurative language, that convey specific meaning.
5. Use a variety of sentence structures, types, and lengths to contribute to fluency and interest.

### *Project*

Students maintain research logs, organize their notes, follow strict guidelines and sequencing requirements, and write a paper addressing specific purposes. Students are evaluated on the quality of their writing including logical and critical thinking skills utilized in their explanations and discussions along with proper English usage and grammar. (p. 28, Appendix E; p. 31, Appendix H)

### STANDARD 2: Modes and Forms of Writing

2. Write expository compositions, including analytical essays and research reports that:
  - a. include evidence in support of a thesis...
  - b. communicate information and ideas from primary and secondary sources accurately and coherently.
  - d. include a variety of reference sources...to locate information in support of topic.
  - e. include visual aids using technology to organize and record information on charts, data tables, maps, and graphs.
5. Write reflective papers that may address one of the following purposes:
  - a. express the individual's insight into conditions or situations.

9. Write documented papers incorporating the techniques of Modern Language Association (MLA) or similar parenthetical styles.

*Project*

Students are required to write a report using a minimum of five sources: electronic, articles, books, publications, interviews, etc. The quality and accuracy of their writing is evaluated. Students may choose to incorporate charts and graphs to illustrate their purpose. Students are provided handouts with instructions and examples of how to cite various sources following MLA guidelines. (p. 31, Appendix H; pp. 32-38, Appendices I – N)

**STANDARD 3: Grammar/Usage and Mechanics**

1. Standard English Usage
  - a. Distinguish commonly confused words.
  - b. Use correct verb forms and tenses.
  - c. Use correct subject-verb agreement.
  - d. Distinguish active and passive voice.
  - e. Use correct pronoun/antecedent agreement and clear pronoun reference.
2. Mechanics and Spelling
  - a. Demonstrate correct use of capitals.
  - b. Use correct formation of plurals.
  - c. Demonstrate correct use of punctuation and recognize its effect on sentence structure.
  - d. Distinguish correct spelling of commonly misspelled words and homonyms.
3. Sentence Structure
  - c. Correct run-on sentences.
  - d. Correct fragments.

*Project*

Student reports are evaluated on English usage and grammar. (p. 31, Appendix H)

**ORAL LANGUAGE/LISTENING AND SPEAKING – Grade 10**

**STANDARD 1: Listening**

3. Evaluate informative and persuasive presentations of peers, public figures, and media presentations.

*Project*

Students will watch videos, various news programs and media presentations, research numerous Web sites on the Internet, listen to guest speakers, participate in class discussions and may have discussions with family and friends. Some of the information they hear may be biased. One of the project's goals is to provide students experience they need to evaluate information and learn to recognize "red flags."

## VISUAL LITERACY – Grade 10

### STANDARD 2: Evaluate Media

1. Recall that people with special interests and expectations are the target audience for particular messages or products in visual media.

#### *Project*

Students watch videos, various news programs and media presentations, research numerous Web sites on the Internet, listen to guest speakers, participate in class discussions and may have discussions with family and friends. Some of the information they encounter may be biased. One of the project's goals is to provide students experience to evaluate information and learn to recognize "red flags."

## LANGUAGE ARTS – Grade 11

### STANDARD 1: Vocabulary

2. Use reference material such as glossary, dictionary, thesaurus, and available technology to determine precise meaning and usage.
5. Use word meanings within the appropriate context and verify these meanings by definition, restatement, example, and analogy.

#### *Project*

Teachers are provided handouts of financial and investment glossary sites for students. At workshops teachers visit various glossary sites. Students research, analyze, document, and write a detailed report of their process. (p. 39, Appendix O)

### STANDARD 2: Comprehension

1. Literal Understanding
  - a. Identify the structures and format of various informational documents and explain how authors use the features to achieve their purpose.
  - c. Use study strategies such as note taking, outlining, and using study guide questions to better understand texts.
2. Inferences and Interpretation
  - d. Make reasonable assertions about authors' arguments by using elements of the text to defend and clarify interpretations.
3. Summary and Generalization
  - a. Determine the main idea, locate and interpret minor subtly stated details in complex passages.
  - b. Use text features and elements to support inferences and generalizations about information.
  - c. Summarize and paraphrase complex, implicit hierarchic structures in informational texts...
4. Analysis and Evaluation
  - b. Analyze the structure and format of informational...documents...

#### *Project*

Students research magazines, newspapers, reference materials, and online information. They log their research, note text, and cite references for use in their final reports. (p. 28, Appendix E; pp. 32-38, Appendices I – N)

### STANDARD 4: Research and Information

1. Accessing Information
  - a. Access information from a variety of primary and secondary sources.
  - b. Skim text for an overall impression and scan text for particular information.
  - c. Use organizational strategies as an aid to comprehend increasingly difficult content material (e.g., problem/solution, sequential order...)

2. Interpreting Information
  - a. Summarize, paraphrase, and/or quote relevant information.
  - b. Determine the author's viewpoint to evaluate source credibility and reliability.
  - c. Synthesize information from multiple sources to draw conclusions that go beyond those found in any of the individual studies.

*Project*

Students initially spend a minimum of two weeks researching magazines, newspapers, reference materials, and online information. However, throughout the semester students may continue researching. Students search for information on topics including but not limited to risk, company's history, management, return on equity, financial statements, cash flow, debt, and long-term growth potential. Students access numerous hard copy and online publications; they are required to cite a minimum of five sources. (p. 26, Appendix C; pp. 32-38, Appendices I – N)

## **WRITING/GRAMMAR/MECHANICS and USAGE – Grade 11**

### STANDARD 1: Writing Process

1. Use a writing process to develop and refine composition skills. Students are expected to:
  - a. use prewriting strategies to generate ideas such as brainstorming, using graphic organizers, keeping notes and logs.
  - c. organize and reorganize drafts and refine style to suit occasion, audience, and purpose.
  - d. proofread writing for appropriateness of organization, content, and style.
  - e. edit for specific purposes such as to ensure standard usage, varied sentence structure, appropriate word choice, mechanics, and spelling.
5. Structure ideas and arguments in a sustained and persuasive way and support them with precise and relevant examples.

*Project*

Students maintain research logs, organize their notes, follow strict guidelines, and write a paper addressing specific purposes. Students are evaluated on the quality of their writing including logical and critical thinking skills utilized in their explanations and discussions along with proper English usage and grammar. (p. 28, Appendix E; p. 31, Appendix H)

### STANDARD 2: Modes and Forms of Writing

7. Write documented papers incorporating the techniques of Modern Language Association (MLA) or similar parenthetical styles.

*Project*

Students submit a Works Cited page containing a minimum of five sources. Students are provided handouts with instructions and examples of how to cite various sources following MLA guidelines. (pp. 32-38, Appendices I – N)

### STANDARD 3: Grammar/Usage and Mechanics

1. Standard English Usage
  - a. Distinguish commonly confused words.
  - b. Use correct verb forms and tenses.
  - c. Use correct subject-verb agreement.
  - d. Use active and passive voice.
  - e. Use correct pronoun/antecedent agreement and clear pronoun reference.
2. Mechanics and Spelling
  - a. Demonstrate correct use of capitals.
  - b. Use correct formation of plurals.
  - c. Demonstrate correct use of punctuation and recognize its effect on sentence structure.
  - d. Distinguish correct spelling of commonly misspelled words and homonyms.
3. Sentence Structure
  - c. Correct run-on sentences.
  - d. Correct fragments.

#### *Project*

Student reports are evaluated on English usage and grammar. (p. 31, Appendix H)

## **ORAL LANGUAGE/LISTENING AND SPEAKING – Grade 11**

### STANDARD 1: Listening

1. Demonstrate proficiency in critical, empathetic, appreciative, and reflective listening to interpret, respond and evaluate speaker's messages.

#### *Project*

Students watch videos, various news programs and media presentations, research numerous Web sites on the Internet, listen to guest speakers, participate in class discussions, and may have discussions with family and friends. Some of the information they hear may be biased. One of the project's goals is to provide students experience they need to evaluate information and learn to recognize "red flags."

## **VISUAL LITERACY – Grade 11**

### STANDARD 2: Evaluate Media

1. Use a variety of criteria (e.g., clarity, accuracy, effectiveness, bias, relevance of facts) to evaluate informational media (e.g., Web sites, documentaries, news programs).

#### *Project*

Students watch videos, various news programs and media presentations, research numerous Web sites on the Internet, listen to guest speakers, participate in class discussions, and may have discussions with family and friends. Some of the information they hear may be biased. One of the project's goals is to provide students experience to evaluate information and learn to recognize "red flags."

## LANGUAGE ARTS – Grade 12

### STANDARD 1: Vocabulary

2. Research unfamiliar words based on characters, themes, or historical events.
  
4. Rely on context to determine meanings of words and phrases such as...technical vocabulary.

#### *Project*

Teachers are provided handouts of financial and investment glossary sites for students. At workshops teachers visit various glossary sites. Students research various technical information regarding businesses, analyze, document, and write a detailed report of their process. (p. 39, Appendix O)

### STANDARD 2: Comprehension

1. Literal Understanding
  - a. Identify the structures and format of various informational documents and explain how authors use the features to achieve their purpose.
  - c. Use study strategies such as note taking, outlining, and using study-guide questions to better understand texts.
2. Inferences and Interpretation
  - d. Make reasonable assertions about authors' arguments by using elements of the text to defend and clarify interpretations.
3. Summary and Generalization
  - b. Use text features and elements to support inferences and generalizations about information.
  - c. Summarize and paraphrase complex, implicit hierarchic structures in informational texts...
4. Analysis and Evaluation
  - e. Evaluate the credibility of information sources, including how the writer's motivation may affect that credibility.

#### *Project*

Students research magazines, newspapers, reference materials, and online information. They may also watch various news programs, listen to guest speakers, interview local business people, and talk with family and friends. They log their research, take notes on information of their choice, and cite references for use in final reports. Projects goals include raising students' awareness of risk, the importance of investing for the long term, and the difference between trading and investing. The ability of students to clarify and evaluate information will be reflected in the quality of their final reports. (p. 28, Appendix E; p. 31, Appendix H)

## STANDARD 4: Research and Information

1. Accessing Information
  - a. Access information from a variety of primary and secondary sources.
  - b. Skim text for an overall impression and scan text for particular information.
  - c. Use organizational strategies as an aid to comprehend increasingly difficult content material (e.g., problem/solution, sequential order...)
2. Interpreting Information
  - a. Summarize, paraphrase, and/or quote relevant information.
  - b. Determine the author's viewpoint to evaluate source credibility and reliability.
  - c. Synthesize information from multiple sources to draw conclusions that go beyond those found in any of the individual studies.
  - d. Identify complexities and inconsistencies in the information and the different perspectives found in each medium including...news sources...technical documents, or Internet sources.
  - f. Compile written ideas and information into reports, summaries, or other formats and draw conclusions.

### *Project*

Students initially spend a minimum of two weeks researching magazines, newspapers, reference materials, and online information. However, throughout the semester most students continue researching. Students search for information on topics including but not limited to risk, company's history, management, return on equity, financial statements, cash flow, debt, and long-term growth potential. Students access numerous hard copy and online publications; they are required to cite a minimum of five sources in the final reports.  
(p. 26, Appendix C; pp. 32-38, Appendices I – N)

## **WRITING/GRAMMAR/MECHANICS and USAGE – Grade 12**

### STANDARD 1: Writing Process

1. Use a writing process to develop and refine composition skills. Students are expected to:
  - a. use prewriting strategies to generate ideas such as brainstorming, using graphic organizers, keeping notes and logs.
  - c. organize and reorganize drafts and refine style to suit occasion, audience, and purpose.
  - d. proofread writing for appropriateness of organization, content, and style.
  - e. edit for specific purposes such as to ensure standard usage, varied sentence structure, appropriate word choice, mechanics, and spelling.
5. Structure ideas and arguments in a sustained and persuasive way and support them with precise and relevant examples.

### *Project*

Students maintain research logs, organize their notes, follow strict guidelines, and write a paper addressing specific purposes. Students are evaluated on the quality of their writing including logical and critical thinking skills utilized in their explanations and discussions along with proper English usage and grammar. (p. 28, Appendix E; p. 31, Appendix H)

## STANDARD 2: Modes and Forms of Writing

6. Write documented papers incorporating the techniques of Modern Language Association (MLA) or similar parenthetical styles.

### *Project*

Students submit a Works Cited page containing a minimum of five sources. Students are provided handouts with instructions and examples of how to cite various sources following MLA guidelines. (pp. 32-38, Appendices I – N)

## STANDARD 3: Grammar/Usage and Mechanics

1. Standard English Usage
  - a. Distinguish commonly confused words.
  - b. Use correct verb forms and tenses.
  - c. Use correct subject-verb agreement.
  - d. Distinguish active and passive voice.
  - e. Use correct pronoun/antecedent agreement and clear pronoun reference.
2. Mechanics and Spelling
  - a. Demonstrate correct use of capitals.
  - b. Use correct formation of plurals.
  - c. Demonstrate correct use of punctuation and recognize its effect on sentence structure.
  - d. Use correct spelling of commonly misspelled words and homonyms.
3. Sentence Structure
  - c. Correct run-on sentences.
  - d. Correct fragments.
4. Apply appropriate manuscript conventions in writing including title page, pagination, spacing and margins, and integration of sources and support material, by citing sources within the text, using direct quotations, and paraphrasing.

### *Project*

Students are provided report guidelines including title page, pagination, spacing and margins, and sources. (p. 31, Appendix H; pp. 32-38, Appendices I – N)

Student reports are evaluated on English usage and grammar. (p. 31, Appendix H)

## **ORAL LANGUAGE/LISTENING AND SPEAKING – Grade 12**

### STANDARD 1: Listening

1. Demonstrate proficiency in critical, empathetic, appreciative, and reflective listening to interpret, respond and evaluate speaker's messages.

#### *Project*

Students watch videos, various news programs and media presentations, research numerous Web sites on the Internet, listen to guest speakers, participate in class discussions and may have discussions with family and friends. Some of the information they hear may be biased. One of the project's goals is to provide students experience they need to evaluate information and learn to recognize "red flags."

## **VISUAL LITERACY – Grade 12**

### STANDARD 2: Evaluate Media

1. Use a variety of criteria (e.g., clarity, accuracy, effectiveness, bias, relevance of facts) to evaluate informational media (e.g., Web sites, documentaries, news programs).

#### *Project*

Students watch videos, various news programs and media presentations, listen to guest speakers, participate in class discussions and may have discussions with family and friends. Students spend a substantial amount of time researching various Web sites on the Internet. Some of the information they observe may be biased. One of the project's goals is to provide students experience to evaluate information and learn to recognize "red flags."

# MATHEMATICS – HIGH SCHOOL

## PROCESS STANDARDS

The National Council of Teachers of Mathematics (NCTM) has identified five process standards: Problem Solving, Reasoning and Proof, Communication, Connections, and Representation. Active involvement by students using these processes is likely to broaden mathematical understandings and lead to increasingly sophisticated abilities required to meet mathematical challenges in meaningful ways.

### PROCESS STANDARD 1: Problem Solving

1. Apply a wide variety of problem-solving strategies (identify a pattern, use equivalent representations) to solve problems from within and outside mathematics.
2. Identify the problem from a described situation, determine the necessary data, and apply appropriate problem-solving strategies.

#### *Project*

One problem the project presents students is how to decide which securities to purchase. Depending on the source of information, many theories exist. There is not just one correct answer. Students research and analyze various sources of information.

Justification for this project **is** a problem-solving process for students. In today's world where so-called traditional pension plans and social security reform are rewriting futures and risk and inflation are ever-present, students are faced with a major problem to solve a real-world situation—how do I manage my financial future?

Teachers are introduced to financial calculators at the training workshops. The project provides skills for the purpose of motivating students. Teachers and students learn to operate these keys: N, I/Y, PV, PMT, FV. When all factors except one are known, the unknown factor can be computed. (p. 40; Appendix P; p. 41, Appendix Q)

### PROCESS STANDARD 2: Communication

1. Use mathematical language and symbols to read and write mathematics and to converse with others.
2. Demonstrate mathematical ideas orally and in writing.
3. Analyze mathematical definitions and discover generalizations through investigations.

#### *Project*

Students may review and analyze financial data represented on charts and graphs. Students research financial histories of various industries and businesses. Students may demonstrate mathematical solutions to real-world situations using financial calculators. Students are introduced to mathematical concepts such as time value of money, compound interest, Rule of 72, and opportunity costs.

(p. 40; Appendix P; p. 41, Appendix Q; pp. 42-43, Appendix R; pp. 44-45, Appendix S)

### PROCESS STANDARD 3: Reasoning

1. Use various types of logical reasoning in mathematical contexts and real-world situations.
3. Verify conclusions, identify counterexamples, test conjectures, and justify solutions to mathematical problems.

#### *Project*

Students exercise critical thinking skills in making decisions on how to select securities. Students may test theories as a method to discover a solution to the situation. (Refer to spring 2006 State winner's report at [www.investedok.org](http://www.investedok.org).) Students write final reports in which they justify their choices and solutions.

### PROCESS STANDARD 4: Connections

1. Link mathematical ideas to the real world.
2. Apply mathematical problem-solving skills to other disciplines.
3. Use mathematics to solve problems encountered in daily life.

#### *Project*

Mathematical ideas including interest rates, credit card debt payments, opportunity costs, investment options, and compound interest are relevant to students' lives in the present and in the future.

Developing a pattern, a step-by-step method to arrive at a conclusion can be applied to any problem-solving situation.

Using a financial calculator enables students to see the value of investing for the long term. Students are able to plug in various "what-if factors" to solve problems. (p. 40, Appendix P; p. 41, Appendix Q)

### PROCESS STANDARD 5: Representation

2. Use a variety of mathematical representations as tools for organizing, recording, and communicating mathematical ideas (e.g., mathematical models, tables, graphs, spreadsheets).

#### *Project*

Students may review and analyze financial data represented on charts, graphs, and spreadsheets. Students are provided tools to organize and record these project components. (p. 26, Appendix C; p. 27, Appendix D; p. 28, Appendix E; p. 29, Appendix F; p. 30, Appendix G)

# MATHEMATICS CONTENT STANDARDS

## ALGEBRA I

### STANDARD 3: Data Analysis and Statistics

#### 1. Data Analysis

- a. Translate from one representation of data to another and understand that the data can be represented using a variety of tables, graphs, or symbols and that different modes of representation often convey different messages.
- b. Make valid inferences, predictions, and/or arguments based on data from graphs, tables and charts.

#### *Project*

Students may review and analyze financial data represented on charts, graphs, and spreadsheets. Students exercise critical thinking skills in making financial decisions based on their interpretation and understanding of these instruments.

(p. 31, Appendix H)

## GEOMETRY

### STANDARD 1: Logical Reasoning

3. Use logical reasoning skills (inductive and deductive) to make and test conjectures, formulate counter examples, follow logical arguments, judge the validity of arguments, and construct simple valid arguments.

#### *Project*

Students research historical financial data on industries and businesses to make predictions and decisions about future performance. Students exercise logical thinking skills in making decisions on how to select securities.

## ECONOMICS

**STANDARD 2:** The student will explain how prices are set in a market economy by using supply and demand graphs and determine how prices provide incentives to buyers and sellers.

1. Determine how price and nonprice factors affect the demand and supply of goods and services available in the marketplace.
2. Explain what causes shortages and surpluses, including government-imposed price floors and price ceilings and determine the impact they have on prices and people's decisions to buy or sell.

### *Project*

Numerous factors affect the market value of securities including but not limited to potential revenues, cash flow, financial strength of the business, management of the business, the industry, economic growth of the overall economy, earnings per share, price-earnings ratio, trends and patterns, etc. The project requires students to research and make decisions based on their risk tolerance and their interpretation of the information they access. A project's goal is for students to recognize that due to their time horizon, they have the ability to take full advantage of "buying and holding" for the long term. (p. 28, Appendix E; p. 26, Appendix C)

When a hurricane hits the Gulf Coast, students experience how a natural disaster affects the demand and supply of goods and services. When the government changes interest rates or imposes a new regulation, students experience the effects on the market.

**STANDARD 3:** The student will evaluate how changes in the level of competition in different markets affect prices.

1. Explain how competition among sellers lowers costs and prices while encouraging producers to produce more, and competition among buyers increases prices and allocates goods and services to those persons willing and able to pay higher prices.
2. Explain how people's own self-interest helps markets make decisions.

### *Project*

Students may realize how powerful consumers are. Students have \$500,000 and the freedom to invest in securities of their choice. Students research industries and businesses. Students will develop an entry-level awareness of the relationship of buyers competing for the best products to meet their needs at the lowest prices and businesses producing products that will be the most profitable.

Students are exposed to real-world market fluctuations. They may discover how actions of people involved in a business affect stock prices. They may experience how a news item, related or unrelated to the business, can affect prices. Students' choices are determined in part by their likes and dislikes.

**STANDARD 5:** The student will analyze how money makes it easier to trade, borrow, save, invest, and compare the value of goods and services.

1. Explain how individuals, businesses and the overall economy benefit from using money.
4. Explain how the value of money is determined by the goods and services it can buy.

*Project*

Students are exposed to real-world market fluctuations. Project participation enables students to research and experience the impact of business and industry production/sales on the market.

Students strive to allocate their budgeted sum of \$500,000 to gain the most value.

Students use financial calculators to solve time value of money situations.  
(p. 40, Appendix P; p. 41, Appendix Q)

**STANDARD 6:** The student will evaluate the role of interest rates in a market economy.

1. Identify current interest rates on different kinds of savings instruments and loans, and compare those rates with current interest rates on credit cards.
2. Discuss the relationship between interest rates and inflation rates, and determine how changes in real interest rates impact people's decisions to borrow money and purchase goods.

*Project*

Inflation is one justification of the project which focuses on investing for the long term. Students investigate options for saving money—traditional savings accounts, CDs, etc.—and compare interest rates.

Students participate in classroom discussion on topics including credit card debt. Teachers have sliding scale information comparing three interest rates and time and money costs for paying minimum payments only on credit card debt.

Students use financial calculators to compare interest rate scenarios.  
(p. 40, Appendix P; p. 41, Appendix Q)

## INFORMATION LITERACY

**STANDARD 1:** The student who is information literate accesses information efficiently and effectively.

1. The student will demonstrate he/she understands the need for information.
2. The student will demonstrate he/she knows that in order to make decisions, accurate information is needed.
3. The student will be able to identify and use a range of information sources.
4. The student will demonstrate he/she knows how to access information from a variety of sources—print, nonprint, and electronic.
5. The student will demonstrate he/she knows how...to retrieve information from print, nonprint, and electronic materials in order to solve a problem or answer a question.

### *Project*

This semester-based project requires students to research, complete a risk assessment, write an investment goal, keep a research log, create an online portfolio, track and maintain a tracking log, and document stock transactions occurring after the initial portfolio is created. Finally, students write a report discussing various topics including their research process, criteria used to determine which stocks to purchase, detailed historical information on at least one stock in their portfolio, risk, goal/s, and investment fraud. (p. 26, Appendix C; p. 27, Appendix D; p. 28, Appendix E; p. 29, Appendix F; p. 31, Appendix H)

In the students' quest for information, they (1) research print and electronic sources (2) view a documentary video, produced by the Invest Ed™ contract and aired on OETA, of intricate workings of a classic Ponzi scheme profiling one of Oklahoma's most recent multimillion-dollar securities fraud cases; (3) may have guest speakers in their classrooms; (4) may view a variety of news shows; and, (5) may interview local subject-matter experts.

**STANDARD 2:** The student who is information literate evaluates information critically and competently.

1. The student will make distinctions between fact, fiction, and biased information.
2. The student will be able to determine accuracy and credibility of authorship and content of a document.
3. The student will be able to determine relevance of information to his/her need.

### *Project*

Invest Ed™ is an unbiased investment education program.

Report Evaluation: **45%**—thoroughness of information provided; logical and critical thinking displayed; use of sources; quality of presentation (p. 31, Appendix H)

A minimum of five sources must be cited in the report. (pp. 32-38, Appendices I – N)

**STANDARD 3:** The student who is information literate uses information accurately and creatively.

1. The student will be able to organize the information in a manner that meets the need of the assignment or problem.
2. The student will assimilate new information into his/her existing knowledge.
3. The student will know how to use the information to communicate ideas and take appropriate action.

### *Project*

Students receive project guidelines on how to organize their reports.

(p. 31, Appendix H)

To most participating students, investment education is new information. The experience of researching a variety of sources and numerous sources enables students to discover patterns, biases, red flags. A project objective is to raise students' awareness so they will make sound choices for their financial futures.

## **INDEPENDENT LEARNING**

**STANDARD 4:** The student who is an independent learner is information literate and pursues information related to personal interests.

1. The student will be able to locate, select, and utilize resources independently for personal enjoyment or use.

### *Project*

Students may research both at school and outside of school. Depending on students' preference, some may visit the school or local library. Students may read periodicals, newspapers, and/or magazines. Some may view various financial news programs. Many will research online sources. Students' personal and individual interests will influence their pursuit of information. (p. 28, Appendix E)

**STANDARD 5:** The student who is an independent learner is information literate and appreciates literature and other creative expressions of information.

2. The student will understand information presented in a variety of formats.

### *Project*

The project allows students to seek information from print, nonprint, and electronic sources. (p. 31, Appendix H)

**STANDARD 6:** The student who is an independent learner is information literate and strives for excellence in information seeking and knowledge generation.

2. The student will combine new information with previous knowledge to generate new knowledge.
3. The student will continue to seek and revise until his/her information need is met and communicated accurately and appropriately.

### *Project*

The project offers students an opportunity for discovery and awareness throughout the semester. Initially, students are logging their research, making written comments of sources, authors/editors, titles, dates, and data. The project allows students the opportunity to make new choices throughout the semester. Students possess the evaluation criteria for the final reports from the beginning of the project. (p. 28, Appendix E; p. 31, Appendix H)

## **SOCIAL RESPONSIBILITY**

**STANDARD 7:** The student who contributes positively to the learning community and to society is information literate and recognizes the importance of information to a democratic society.

1. The student will recognize and respect differing opinions in discussions as well as print and visual resources.
2. The student will proactively seek to understand different perspectives in order to have an informed opinion.

### *Project*

Classroom discussions and the experience of researching a variety of sources and numerous sources expose students to different perspectives. Students' ability to assimilate these differences along with new information and form their own opinions will be evident in the quality of their final reports. (p. 31, Appendix H)

**STANDARD 8:** The student who contributes positively to the learning community and to society is information literate and practices ethical behavior in regard to information and information technology.

3. The student gives credit to sources.
4. The student follows guidelines in acceptable use policies and guidelines for technology usage.

*Project*

The project requires a Works Cited page using MLA guidelines.  
(pp. 32-38, Appendices I – N)

Each high school has an acceptable use policy regarding technology and the Internet which students are required to follow.

**STANDARD 9:** The student who contributes positively to the learning community and to society is information literate and participates effectively in groups to pursue and generate information.

1. The student will demonstrate the ability to be a contributing member of a group by locating, using, and communicating information to solve a need or problem.

*Project*

On a basic level—the class is the group, although students may also interact with friends and family. The project is the need or problem. The project requires gathering information from a variety of resources, processing that information, and making choices.

On another level—society is the group, and working towards future financial security is the individual student problem.

# INSTRUCTIONAL TECHNOLOGY

## Advanced Level prior to completion of Grade 12

**STANDARD 3:** The student will demonstrate knowledge of technology productivity tool.

1. Use technology tools and resources for managing and communicating personal / professional information.
2. Investigate...simulations in real-world situations.

### *Project*

The project requires creating and tracking an online portfolio, a simulation.  
(p. 24, Appendix A; p. 29, Appendix F; p. 31, Appendix H)

**STANDARD 4:** The student will demonstrate knowledge of technology communication tools.

1. Use technology tools and resources for managing and communicating personal / professional information.
2. Routinely and efficiently use online information resources to meet needs for collaboration, research, publications, communications, and productivity.
3. Select and apply technology tools for research, information analysis, problem solving, and decision making in content learning.

### *Project*

Students use technology tools throughout the semester to research and analyze information, log and track online portfolios, and decide which securities to purchase and/or sell. (p. 28, Appendix E; p. 29, Appendix F)

The project requires students to research, complete an online risk assessment, write an investment goal, keep a research log, create an online portfolio, track and maintain a tracking log, and document stock transactions occurring after the initial portfolio is created. Finally, students write a report discussing various topics including their research process, criteria used to determine which stocks to purchase, detailed historical information on at least one stock in their portfolio, risk, goal/s, and investment fraud. (p. 26, Appendix C; p. 27, Appendix D; p. 28, Appendix E; p. 29, Appendix F; p. 30, Appendix G; p. 31, Appendix H)

**STANDARD 5:** The student will demonstrate knowledge of technology research tools.

2. Routinely and efficiently use online information resources to meet needs for collaboration, research, publications, communications, and productivity.
3. Select and apply technology tools for research, information analysis, problem solving, and decision making in content learning.

*Project*

Students use technology tools throughout the semester to research and analyze information, log and track online portfolios, and decide which securities to purchase and/or sell.

The project requires students to research, complete an online risk assessment, write an investment goal, keep a research log, create an online portfolio, track and maintain a tracking log, and document stock transactions occurring after the initial portfolio is created. Finally, students write a report discussing various topics including their research process, criteria used to determine which stocks to purchase, detailed historical information on at least one stock in their portfolio, risk, goal/s, and investment fraud. (p. 26, Appendix C; p. 27, Appendix D; p. 28, Appendix E; p. 29, Appendix F; p. 30, Appendix G; p. 31, Appendix H)

**STANDARD 6:** The student will demonstrate knowledge of technology problem-solving and decision-making tools.

1. Routinely and efficiently use online information resources to meet needs for collaboration, research, publications, communications, and productivity.

*Project*

Students use technology tools throughout the semester to research and analyze information, log and track online portfolios, and decide which securities to purchase and/or sell.

# TECHNOLOGY EDUCATION

## Grades 6 – 10

STANDARD 19: The student will explore the organization and management systems of business and industry.

### *Project*

The online portfolio tracking project is for high school students, grades 9-12. Students research and compare various businesses and industries. Students search for information on topics including but not limited to company's history, management, return on equity, financial statements, cash flow, debt, and long-term growth potential.



## PROJECT RULES

Only secondary teachers who have completed a one-day training session may implement this project in their classrooms. Teachers attending spring and summer workshops may implement this project the following fall. Teachers attending fall workshops may implement this project the following spring.

Teachers who implement this project and have a minimum of three students complete the project in its entirety will receive a \$100 stipend. Teachers are required to send a list of students participating in the project (fax or e-mail) + preference of t-shirts (send sizes) or caps to Jo Ann Murray on a specified date.

Students must submit all required documents **to their teacher** by the deadlines on the *Project Timeframe* handout.

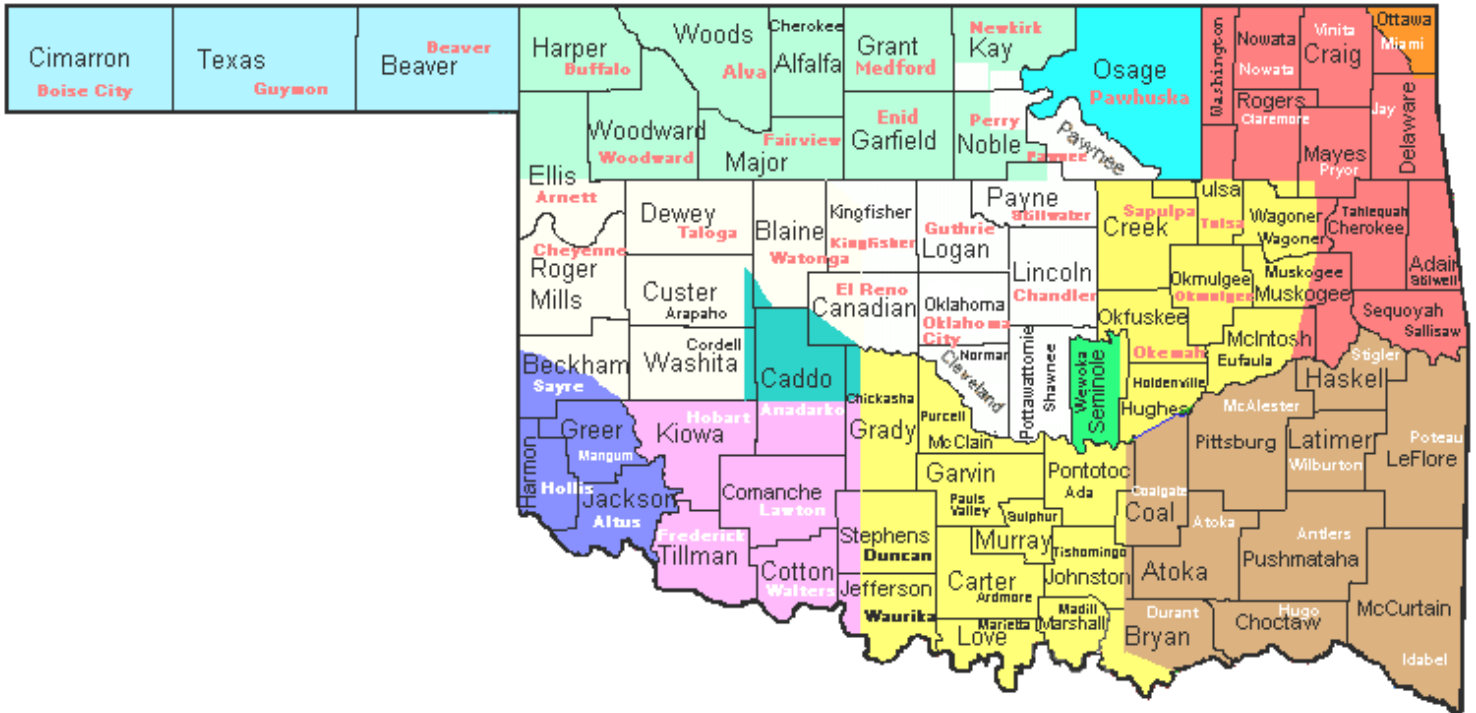
- Risk Assessment
- Risk Assessment Results
- Investment Goal/s
- Printout 1: Portfolio (landscape, Yahoo must include *Day's Range* col.)
- Printout 2: Portfolio (landscape, Yahoo must include *Day's Range* col.)
- Student Research Log
- Student Tracking Log
- FINAL REPORT

The Final Report must meet standards on the *Report Requirements* document. Criteria for evaluation are also listed on this document. A representative from the Oklahoma Securities Department, the Project Director, and appointed personnel will evaluate the Reports.

Oklahoma counties are divided into six regions: Northeast, Southeast, Northwest, Southwest, Oklahoma, and Tulsa. One report winner for each region plus one statewide report winner will be selected. Plaques and \$250 awards will be presented to regional winners. A \$1,000 scholarship along with a plaque will be presented to the statewide winner. Winners will be honored at an awards ceremony Saturday luncheon along with their parents, teacher, administrator, and designated contract officials as invited guests.

# Invest Ed™

Students Tracking and Researching the Stock Market



NORTHEAST	SOUTHEAST	NORTHWEST	SOUTHWEST	OKLAHOMA COUNTY	TULSA COUNTY
Adair	Atoka	Alfalfa	Beckham		
Cherokee	Bryan	Beaver	Caddo		
Craig	Choctaw	Blaine	Carter		
Creek	Coal	Canadian	Comanche		
Delaware	Haskell	Cimarron	Cotton		
Kay	Hughes	Cleveland	Garvin		
Lincoln	Johnston	Custer	Grady		
Mayes	Latimer	Dewey	Greer		
Muskogee	LeFlore	Ellis	Harmon		
Noble	Marshall	Garfield	Jackson		
Nowata	McCurtain	Grant	Jefferson		
Okfuskee	McIntosh	Harper	Kiowa		
Okmulgee	Pittsburg	Kingfisher	Love		
Osage	Pontotoc	Logan	McClain		
Ottawa	Pottawatomie	Major	Murray		
Pawnee	Pushmataha	Roger Mills	Stephens		
Payne	Seminole	Texas	Tillman		
Rogers	Sequoyah	Woods	Washita		
Wagoner		Woodward			
Washington					



## P R O J E C T T I M E F R A M E

Sept. 4 – Sept. 14	Students research stocks and <i>decide</i> which stocks to buy by September 14 <b>deadline</b> . (minimum = 10; maximum =25) Students document investigative process on <i>Student Research Log</i> . (Refer to <i>Works Cited</i> handouts for required source information.) (Students submit <i>Student Research Log</i> to teacher November 6.)
Sept. 10 – Sept. 14	Students complete risk assessment. Choose one site only from this list. Students' <b>Deadline</b> to print and submit risk assessment results to teacher is any date between September 10-14. <a href="http://mutualfunds.about.com/library/personalitytests/blrisktolerance.htm">http://mutualfunds.about.com/library/personalitytests/blrisktolerance.htm</a> <a href="http://ici.org/i4s/i4s_risk_tolerance.pdf">http://ici.org/i4s/i4s_risk_tolerance.pdf</a> <a href="http://www.rcrc.rutgers.edu/money/riskquiz/">http://www.rcrc.rutgers.edu/money/riskquiz/</a> <a href="http://partners.financenter.com/bankone/learn/guides/allocation/aarisk.fcs">http://partners.financenter.com/bankone/learn/guides/allocation/aarisk.fcs</a> <a href="http://pages.stern.nyu.edu/~adamodar/New_Home_Page/invmgmt/ch2/risktol.htm">http://pages.stern.nyu.edu/~adamodar/New_Home_Page/invmgmt/ch2/risktol.htm</a> <a href="http://moneycentral.msn.com/investor/calcs/n_riskq/main.asp">http://moneycentral.msn.com/investor/calcs/n_riskq/main.asp</a> <a href="http://www.kiplinger.com/personalfinance/tools/riskfind.html">http://www.kiplinger.com/personalfinance/tools/riskfind.html</a> <a href="http://www.fincalc.com/inv_08.asp?id=6">http://www.fincalc.com/inv_08.asp?id=6</a> <a href="http://www.firstambank.com/464.html">http://www.firstambank.com/464.html</a>
Sept. 10 – Sept. 14	Students set an investment goal (or goals). An investment goal example may be to achieve a certain percentage increase over the initial \$500,000 investment <i>or</i> to match an index's rate of growth <i>or</i> to understand <i>or</i> to learn a specific concept or rule, etc. Students' <b>Deadline</b> to submit investment goal/s on <i>Investment Goal</i> form to teacher is any date between September 10-14.
Sept. 17 – Sept. 21	Students <u>create</u> portfolio. Complete \$500,000 cash transaction and securities transactions (one for each purchase). Students' <b>Deadline—Printout 1</b> : Students print and submit to teacher portfolio from either Yahoo or Marketwatch including date—must be dated between Sept. 17-21. <i>Day's Range</i> column <b>MUST</b> be displayed on Yahoo printout; refer to <i>Day's Range</i> handout. Print in Landscape Orientation. (Do not download spreadsheet.) Student handwrites name near date. Tracking may begin effective September 17 if students complete portfolios prior to September 21.
Sept. 21	Students' <b>Deadline</b> to create portfolio; complete \$500,000 cash transaction and securities transactions (one for each purchase).
Sept. 24 – Oct. 31	<b>TRACK PORTFOLIO</b> . Students document tracking on <i>Student Tracking Log</i> . Check daily or as often as possible; students are <b>required</b> to check twice weekly. Students may buy and sell as desired; document dates and reasons; a <i>Sell or Purchase Stocks</i> documentation tool is provided. (Students submit <i>Student Tracking Log</i> to teacher November 6.)
Oct. 25 – Oct. 31	<b>END TRACKING</b> Students' <b>Deadline—Printout 2</b> : Students print and submit to teacher portfolio from either Yahoo or Marketwatch including date—must be dated between Oct. 25-Oct. 31. Print in Landscape Orientation. (Do not download spreadsheet.) Student handwrites name near date.
Nov. 6	Students' <b>Deadline</b> to submit final report to teacher. (Refer to <i>Report Requirements</i> handout.) Students' <b>Deadline</b> to submit <i>Student Research Log</i> to teacher. (Information was needed for report.) Students' <b>Deadline</b> to submit <i>Student Tracking Log</i> to teacher.
Nov. 7–12	Teachers screen final reports.
Nov. 12	Teachers' <b>Deadline</b> to mail top 1 or 2 reports (per class) to Project Director Jo Ann Murray. No folders please. <b>MUST BE POSTMARKED NO LATER THAN NOVEMBER 12.</b>
Dec. 1	Awards Ceremony luncheon on OU campus – <i>Scholars Room</i> at Oklahoma Memorial Union



STUDENT \_\_\_\_\_  
 CLASS \_\_\_\_\_  
 TEACHER \_\_\_\_\_

RESEARCH						
DATE	HOURS	SOURCE: Website or Publication	AUTHOR or EDITOR	TITLE of ARTICLE	DATE of ARTICLE	COMMENTS Use back and additional paper as needed.
Sept. 4						
Sept. 5						
Sept. 6						
Sept. 7						
Sept. 8						
Sept. 9						
Sept. 10						
Sept. 11						
Sept. 12						
Sept. 13						
Sept. 14						
<b>Total Hours</b>						

STUDENT \_\_\_\_\_  
 CLASS \_\_\_\_\_  
 TEACHER \_\_\_\_\_



**DIRECTIONS**  
 Initial the date you check your Portfolio. If the Value and Gain columns are UP, initial in the plus column. If the columns are DOWN, initial in the minus column.

SEPTEMBER	+	-
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		

OCTOBER	+	-
1		
2		
3		
4		
5		
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7		
8		
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31		



## SELL OR PURCHASE SECURITIES

STUDENT \_\_\_\_\_  
 CLASS \_\_\_\_\_  
 TEACHER \_\_\_\_\_

After the portfolio is created and Printout 1 is submitted to their teachers (Sept. 21), students may choose **to sell** stocks (partial or all shares) or **to purchase** stocks (additional shares of existing company or new company—or both). Because students need this information for their final reports, they must document these activities. Students are not required to submit this form; its purpose is to provide students a documentation tool.

### SELL STOCKS

Date	
Company Name	
# shares sold	
price per share	
# shares still owned	
Purpose	
Results	

### PURCHASE STOCKS

Date	
Company Name	
# shares purchased	
price per share	
total # shares owned	
Purpose	
Results	

# REPORT REQUIREMENTS



**Due Date** November 6

## **Report Layout**

Assemble in this order.

- 1) Cover Page Refer to attached handout.
- 2) Body Maximum length is 10 pages *including* Cover, Works Cited, and two printouts. There is no minimum length requirement.  
**sources** required—minimum of 5
- 3) Works Cited (separate page) Refer to 7-page handout guidelines.
- 4) 2 printouts Portfolio from either Yahoo Finance or MarketWatch  
Printout 1 (dated between Sept. 17 - 21)  
Printout 2 (dated between Oct. 25 - Oct. 31)  
Yahoo Printouts must display *Day's Range* column. Refer to attached instructions. Handwrite name on printouts near printed date.

## **Report Format**

- margins 1" left and right and 1" top and bottom
- body double space
- font Arial or Times New Roman
- font color black, on white paper only
- font size 12
- page numbers bottom, center

**No** report folders. Teachers will be mailing reports – US Postal Service mail.

## **Report Body**

- Discuss your research process.
- What criteria did you use to determine which stocks to buy?
- Give detailed information on at least one of the stocks you purchased. Include history, company and industry trends, and other relevant factors.
- Did you sell any stock during the project? If so, discuss why along with the results of the sale/s.
- Discuss risk. Mention the risk assessment tool (site) used. How well did your risk assessment results match your Portfolio results?
- Mention your investment goal (or goals). Did you achieve your goal/s? Discuss.
- What did you learn about recognizing investment fraud and protecting yourself against it?
- Talk about *specifics* you learned as a result of this project.
- Has your opinion on monitoring your finances changed as a result of this project? How?
- What is your perspective of the market as a result of this project?
- What value did this project provide you in your present? Future?
- Is there an investment goal in your future? Discuss.

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## **R E P O R T E V A L U A T I O N**

- 45%** thoroughness of information provided; logical and critical thinking displayed; use of sources; quality of presentation
- 30%** How well do your Portfolio results match risk assessment results and investment goal/s? Compare Portfolio *Value* and *Gain* columns from beginning to end. (2 required printouts—Yahoo printouts must include *Day's Range* column and date)
- 25%** English usage and grammar; follow report requirements

## Works Cited – Formatting Guidelines

All information copied from:

[http://www.wisc.edu/writing/Handbook/DocMLAWorksCited\\_Format.html](http://www.wisc.edu/writing/Handbook/DocMLAWorksCited_Format.html)

On separate page/s at the **end** of your paper, list alphabetically by author (last name first) every work cited in your paper, using the basic formats illustrated on the attached pages.

List only those sources you actually cited in your paper.

The rule for referring to material in an [indirect or secondhand source](#)—that is, for citing when you have not seen the original but have obtained the information from another document that cited the original source—is to list the source you *have* seen, **not** the original.

**Please note the *MLA Handbook* recommends underlining book titles.**

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**Title** Title the page *WORKS CITED* (not *Bibliography*) centered at the top of a new page.

**Spacing** All entries should be single-spaced. Double space between entries (one blank line).

**Indentation** Begin an entry at the left margin; indent the remaining lines one-half inch. (In Microsoft Word, this is a hanging indent.)

**Source Titles** Underline or italicize titles of books, periodicals, films, and television series (but not individual episodes).

**Electronic sources** As explained in the sixth edition of the *MLA Handbook*, a citation for an electronic publication typically has more parts than a citation for a print publication.

For an electronic source, provide five types of information (as available):

- (1) Author's name (last name first)
- (2) Title
- (3) Information about print publication
- (4) Information about electronic publication
- (5) Information about access <URL>

## Works Cited– Electronic source

All information copied from:

[http://www.wisc.edu/writing/Handbook/DocMLAWorksCited\\_ElecSources.html](http://www.wisc.edu/writing/Handbook/DocMLAWorksCited_ElecSources.html)

**Entries for electronic sources include five types of information (as available): (1) author name (last name first); (2) title; (3) information about print publication (if available); (4) information about electronic publication; and (5) access information <URL>.**

Type of source	Sample entry in reference list
Online scholarly article	Ross, Andrew. "Hacking Away at the Counterculture." <u>Postmodern Culture</u> 1.1 (1990): 43 pars. 3 May 2003 < <a href="http://muse.jhu.edu/journals/postmodern_culture/v001.1ross.html">http://muse.jhu.edu/journals/postmodern_culture/v001.1ross.html</a> >.
An entire online book	Rawlins, Gregory J. <u>Moths to the Flame</u> . Cambridge: MIT P, 1996. <i>MIT Press</i> . 30 Aug 2000 < <a href="http://mitpress.mit.edu/e-books/moths/">http://mitpress.mit.edu/e-books/moths/</a> >.
A part of an online book	Rawlins, Gregory J. Preface. <u>Moths to the Flame</u> . Cambridge: MIT P, 1996. <i>MIT Press</i> . 3 Aug. 2000 < <a href="http://mitpress.mit.edu/e-books/moths/preface.html">http://mitpress.mit.edu/e-books/moths/preface.html</a> >.
Online scholarly project	<u>Suffragists Oral History Project</u> . 1998. Library, U of California, Berkeley. 20 Jan. 2003 < <a href="http://www.lib.berkeley.edu/BANC/ROHO/online/suffragists.html">http://www.lib.berkeley.edu/BANC/ROHO/online/suffragists.html</a> >.  (Note: If the site lists an editor [and some do], insert, e.g., "Ed. John P. Doe." before the first date.)
An entire Internet site	<u>Electronic Beowulf</u> . Ed. Kevin Kiernan. 2003. 5 Sept. 2003 < <a href="http://www.uky.edu/~kiernan/eBeowulf/guide.htm">http://www.uky.edu/~kiernan/eBeowulf/guide.htm</a> >.
Article in online magazine	Fallows, James. "The Age of Murdoch." <u>Atlantic Online</u> Sept. 2003. 10 Oct. 2003 < <a href="http://www.theatlantic.com/issues/2003/09/fallows.htm">http://www.theatlantic.com/issues/2003/09/fallows.htm</a> >.

<p><b>Article in online newspaper</b></p>	<p>Goldfarb, Zachary A. "Child Health Dilemma." <u>Washington Times</u> 31 Aug. 2003. 4 Sept. 2003 &lt;<a href="http://www.washtimes.com/world/20030831-121939-8655r.htm">http://www.washtimes.com/world/20030831-121939-8655r.htm</a>&gt;.</p> <p>(Note: Some URLs are so long they are time-consuming to reproduce accurately. In these cases you may provide the URL of the site's search page instead—for example, &lt;<a href="http://www.washtimes.com">http://www.washtimes.com</a>&gt;.)</p>
<p><b>Article in online encyclopedia</b></p>	<p>"Drake, Sir Francis." <u>Columbia Encyclopedia</u>. 2002. Columbia Encyclopedia. 6 July 2003 &lt;<a href="http://www.bartleby.com/65/Drake-Si.html">http://www.bartleby.com/65/Drake-Si.html</a>&gt;.</p>
<p><b>Document from online database</b></p>	<p>"Macromedia, Inc." <u>Hoover's Online</u>. 2002. Hoover's, Inc. 4 Sept 2003 &lt;<a href="http://www.hoovers.com/free/co/factsheet.xhtml?COID=16658">http://www.hoovers.com/free/co/factsheet.xhtml?COID=16658</a>&gt;.</p>
<p><b>A home page for a course</b></p>	<p>Todar, Kenneth. Host-Parasite Interactions. Course home page. Spring 2003. Dept. of Bacteriology, U of Wisconsin. 7 Apr. 2003 &lt;<a href="http://bact.wisc.edu/Bact330/Bact330Homepage">http://bact.wisc.edu/Bact330/Bact330Homepage</a>&gt;.</p>
<p><b>An e-mail communication</b></p>	<p>Tetslaff, Melissa. E-mail to the author. 17 Sept. 2002.</p>
<p><b>Newspaper article from online database</b></p>	<p>Young, Judith S.L. "Fadeout; Only a Few Grand Old Movie Theaters Remain to Remind Us of Their Golden Age." <u>Newsday</u> 3 Aug. 2003, Queens ed.: G06. Lexis-Nexis. 5 July 2003 &lt;<a href="http://web.lexis-nexis.com/">http://web.lexis-nexis.com/</a>&gt;</p>

## Works Cited – Article

All information copied from:

[http://www.wisc.edu/writing/Handbook/DocMLAWorksCited\\_Article.html](http://www.wisc.edu/writing/Handbook/DocMLAWorksCited_Article.html)

Type of source	Sample entry in reference list
<b>Journal Article</b>	Dabundo, Laura. "'The Voice of the Mute': Wordsworth and the Ideology of Romantic Silences." <u>Christianity and Literature</u> 43.1 (1995): 21-35.
<b>Magazine Article</b>	Alpern, David M. "Has Moscow Violated SALT?" <u>Newsweek</u> 22 Oct. 1984: 32.
<b>Newspaper Article</b>	Crossette, Barbara. "India Lodges First Charges in Arms Scandal." <u>New York Times</u> 23 Jan. 1990, natl. ed.: A4.
<b>Article or Chapter in Anthology</b>	Magny, Claude-Edmonde. "Faulkner or Theological Inversion." <u>Faulkner: A Collection of Critical Essays</u> . Ed. Robert Penn Warren. Englewood Cliffs: Prentice-Hall, 1966. 66-78.

## Works Cited – Book

All information copied from:

[http://www.wisc.edu/writing/Handbook/DocMLAWorksCited\\_Book.html](http://www.wisc.edu/writing/Handbook/DocMLAWorksCited_Book.html)

Type of source	Sample entry in reference list
<b>Book</b> Single Author	Frye, Northrop. <u>Anatomy of Criticism: Four Essays</u> . Princeton: Princeton UP, 1957.
<b>Another Work</b> Same Author	---. <u>The Secular Scripture</u> . Cambridge: Harvard UP, 1976.
<b>Book</b> Two Authors	Howe, Russell Warren, and Sarah Hays Trott. <u>The Power Peddlers</u> . Garden City: Doubleday, 1977.
<b>More than Three Authors or Editors</b>	Edens, Walter, et al., eds. <u>Teaching Shakespeare</u> . Princeton: Princeton UP, 1977.
<b>Multivolume Work</b>	Freedberg, S. J. <u>Andrea del Sarto</u> . 2 vols. Cambridge: Harvard UP, 1963.
<b>Book</b> Corporate Author	National Institute for Dispute Resolution. <u>Dispute Resolution Resource Directory</u> . Washington: Natl. Inst. for Dispute Resolution, 1984.
<b>An Edition</b>	Malory, Sir Thomas. <u>King Arthur and his Knights</u> . Ed. Eugene Vinaver. London: Oxford UP, 1956.
<b>Anthology</b>	Harari, Josue, ed. <u>Textual Strategies</u> . Ithaca: Cornell UP, 1979.
<b>Article or Chapter in Anthology</b>	Magny, Claude-Edmonde. "Faulkner or Theological Inversion." <u>Faulkner: A Collection of Critical Essays</u> . Ed. Robert Penn Warren. Englewood Cliffs: Prentice-Hall, 1966. 66-78.
<b>Second or Later Edition</b>	Altick, Richard, and John J. Fenstermaker. <u>The Art of Literary Research</u> . 4th ed. New York: Norton, 1993.

## Works Cited

### Government Publication, Encyclopedia Entry

All information copied from:

[http://www.wisc.edu/writing/Handbook/DocMLAWorksCited\\_OtherPrint.html](http://www.wisc.edu/writing/Handbook/DocMLAWorksCited_OtherPrint.html)

Type of source	Sample entry in reference list
<b>Government Publication</b>	United States. Federal Maritime Commission. <u>Hawaiian Trade Study: An Economic Analysis.</u> Washington: GPO, 1978.
<b>Signed Encyclopedia Entry</b>	Foster, John S., Jr. "Nuclear War." <i>The Encyclopedia Americana</i> . Intl. ed. 1998.

## Works Cited - Personal Interview, Film, TV

All information copied from:

[http://www.wisc.edu/writing/Handbook/DocMLAWorksCited\\_NonPrint.html](http://www.wisc.edu/writing/Handbook/DocMLAWorksCited_NonPrint.html)

Type of source	Sample entry in reference list
<b>Personal Interview</b>	Parsons, Gwynneth. Personal interview. 7 Sept. 2003.
<b>Film</b>	<u>Inherit the Wind</u> . Dir. Stanley Kramer. Perf. Spencer Tracy and Frederic March. United Artists, 1960.  [Note: If it's the director or another individual associated with the film you want to cite, start the entry with that person's name--here, for example, Kramer, Stanley, dir.]
<b>Television Program</b>	<u>Voyage to the Galapagos</u> . Host Alan Alda. Scientific American Frontiers. PBS. 5 Oct. 1999.

# FINANCIAL GLOSSARY SITES

<http://biz.yahoo.com/f/g/>

[www.moneychimp.com](http://www.moneychimp.com)

link at top

[www.riskglossary.com](http://www.riskglossary.com)

link at top

[www.investopedia.com](http://www.investopedia.com)

Dictionary tab (at top)

[www.smartmoney.com](http://www.smartmoney.com)

left column: SmartMoney University / Investing 101

middle column: Stocks / Taking Stock

right column: (last item in blue box) Glossary

[www.fl2010.org](http://www.fl2010.org)

right column: Customize This Site for your state

Table of Contents – last item = Glossary

[www.marketcenter.com](http://www.marketcenter.com)

Education (at top right)

Left column: Education section, Glossaries

<http://www.investored.com>

left column: Glossary (last entry in gold box)

<http://www.nyse.com/>

Glossary link at top

<http://www.moneyextra.com/dictionary/>

# FINANCIAL CALCULATOR SITES

[http://moneycentral.msn.com/Investor/calcs/n\\_savapp/main.asp](http://moneycentral.msn.com/Investor/calcs/n_savapp/main.asp)  
savings calculator

[http://www.moneychimp.com/calculator/compound\\_interest\\_calculator.htm](http://www.moneychimp.com/calculator/compound_interest_calculator.htm)

<http://www.1728.com/indexfin.htm>

<http://www.tcalc.com/tvwww.dll?user?tmpl=usertool.htm>

[http://www.bankrate.com/brm/rate/calc\\_home.asp](http://www.bankrate.com/brm/rate/calc_home.asp)

<http://www.kiplinger.com/personalfinance/tools/>

<http://calculators.interest.com/>

<http://money.aol.com/calculators?sem=1&ncid=AOLPRF00170000000002#rothira>

<http://www.collegeboard.com/article/0,,6-29-0-401,00.html>

<http://www.mortgagesaver101.com/mortgage-calculator.html>

[http://www.homestore.com/homefinance/home-mortgage.asp?source=a2gg7ft1272&refcd=GO520055s\\_financial\\_calculators&poe=homestore](http://www.homestore.com/homefinance/home-mortgage.asp?source=a2gg7ft1272&refcd=GO520055s_financial_calculators&poe=homestore)

# FINANCIAL CALCULATOR “WHAT-IFs”

PV	present value
FV	future value (When FV is a known, you must enter it as a negative! When FV is the unknown, it will display as a negative.)
I/Y	annual interest (interest per year)*
N	number of periods (years if interest is compounded annually)*
PMT	payment

\*If payment is monthly, both I/Y and N have to be adjusted from yearly to monthly.

Number of years multiplied by 12 = monthly payments

I/Y divided by 12 = monthly interest rate

The N and I/Y and PMT **must** be consistent—all three yearly or all three monthly, etc.

<p><b>Calculate Present Value:</b> You just won the \$2 million lottery. However, the prize will be awarded on your 100<sup>th</sup> birthday (assuming you're around to collect), 80 years from now. What is the present value of your windfall if the appropriate discount (interest) rate is 14%?</p>		
<b>PV</b>		
<b>FV</b>	\$2,000,000	problem copied from Personal Finance 5/e, McGraw-Hill
<b>I/Y</b>	14%	
<b>N</b>	80	

<p><b>Calculate Interest Rate:</b> Brad and Marcie just got married; they received \$5,000 in cash gifts from family and friends. They would like to let the money grow into \$10,000 in eight years for a down payment on a house. What interest rate will they need?</p>		
<b>PV</b>	\$5,000	
<b>FV</b>	\$10,000	problem copied from Personal Finance 5/e, McGraw-Hill
<b>I/Y</b>	unknown	
<b>N</b>	8	

<p><b>Calculate Future Value:</b> If you save <b>\$1.00 a day</b>, that's equal to \$30 a month. Check out four “what ifs” with varying years, interest rates, and monthly savings.</p>					
	(1)	(2)	(3)	(4)	
<b>PV</b>	zero	zero	zero	zero	(1) 54,922.30
<b>FV</b>	unknown	unknown	unknown	unknown	(2) 91,755.30
<b>I/Y</b>	9% annual divided by 12=.75 mo.	8% = .67 mo.	9% = .75 mo.	7.5% .625 mo.	(3) 234,066.01
<b>N</b>	30 yrs multiplied by 12=360 mos.	35 =420 mos.	40 =480 mos.	50 =600 mos.	(4) 656,443.82
<b>PMT</b>	\$30 monthly	\$40	\$50	\$100	

<p><b>Calculate Monthly Payments:</b> You want to be a millionaire by age 40, 50, or 60, and today you are 18. Check out these “what ifs” with varying factors.</p>						
	(1)	(2)	(3)	(4) by age 50	(5) by age 60	
<b>PV</b>	zero	zero	zero	zero	zero	(1) 1,211.74
<b>FV</b>	1 million	1 million	1 million	1 million	1 million	(2) 1,049.13
<b>I/Y</b>	9% annual divided by 12=.75 mo.	10% = .83 mo.	11% = .92 mo.	12% 1% mo.	12% 1%	(3) 905.57
<b>N</b>	22 yrs multiplied by 12=264 mos.	22 =264 mos.	22 =264 mos.	32 =384 mos.	42 =504 mos.	(4) 223.98
<b>PMT</b>	unknown	unknown	unknown	unknown	unknown	(5) 66.82

# THE POWER OF COMPOUNDING INTEREST

From [Dustin Woodard](#)

Your Guide to [Mutual Funds](#)

<http://mutualfunds.about.com/cs/mutualfunds101/a/compounding.htm>

## Discover the 8th Wonder of the World

There are many decent examples of the impact of compounding interest on the Web, but they seem to fail at providing an example that is easy to relate to. I have created a scenario to help you truly understand what Einstein called the "8th wonder of the world."

Two students, each 18 years of age, graduate from High School. For graduation gifts Matt's father offers to put \$20,000 into a savings account, and Chuck's father offers to put \$20,000 into a mutual fund. In both cases the graduates cannot touch their graduation gifts until they are retired, age 65.

Matt's father goes a step further and says he will automatically add \$20,000 into the savings account every year until Matt is retired. After Matt and Chuck discuss their graduation gifts, Chuck feels cheated.

For simplicity, we will assume that inflation is equal to 3%, Matt's savings account earns exactly enough to cover inflation, and Chuck's mutual fund account earns 10% on top of inflation.

**10 Year Reunion:** At their 10 year reunion, Matt and Chuck compare notes. Chuck's graduation gift turned into \$51,875. Matt's gift is now worth \$200,000. Chuck feels cheated.

**20 Year Reunion:** Once again, Matt and Chuck compare notes. Chuck's graduation gift grew to \$134,550. Matt's account balance was \$400,000. Chuck feels cheated.

**30 Year Reunion:** Although it seemed unnecessary, Matt and Chuck compared notes. Chuck's graduation gift turned into \$348,988. Matt's gift is now worth \$600,000. Chuck feels cheated.

Don't worry, there was not a 40 year reunion. However, when it was time for retirement at age 65, Chuck did give Matt a call; they ended up talking about their graduation gifts. After 47 years, Matt had accumulated \$940,000, all out of his father's pocket year after year. After a **one-time** investment of \$20,000, Chuck's graduation gift grew to a whopping \$1,763,950! It was now Matt and Matt's father who felt cheated.

The chart on the next page shows the growth of the two investments over time (you can also view the full table [here](#)).

In what seemed an unfair comparison, compounding interest was powerful enough to overcome a much smaller investment. If we put the two investments on even ground by adding in \$20,000 each year to Chuck's account, the resulting balance would have been \$17,599,856!

The name of the game is to invest early and to invest often. To further gain an understanding of this concept, try doing your own experiments with this simple [compounding calculator](#).

	<b>MATT'S GIFT</b>	<b>CHUCK'S GIFT</b>
	Add \$20k <b>EACH YEAR</b> to bank account	Put \$20k into a mutual fund - <b>ONE TIME</b>
Year 1	\$ 20,000	\$ 22,000
Year 2	\$ 40,000	\$ 24,200
Year 3	\$ 60,000	\$ 26,620
Year 4	\$ 80,000	\$ 29,282
Year 5	\$ 100,000	\$ 32,210
Year 6	\$ 120,000	\$ 35,431
Year 7	\$ 140,000	\$ 38,974
Year 8	\$ 160,000	\$ 42,872
Year 9	\$ 180,000	\$ 47,159
<b>Year 10</b>	<b>\$ 200,000</b>	<b>\$ 51,875</b>
Year 11	\$ 220,000	\$ 57,062
Year 12	\$ 240,000	\$ 62,769
Year 13	\$ 260,000	\$ 69,045
Year 14	\$ 280,000	\$ 75,950
Year 15	\$ 300,000	\$ 83,545
Year 16	\$ 320,000	\$ 91,899
Year 17	\$ 340,000	\$ 101,089
Year 18	\$ 360,000	\$ 111,198
Year 19	\$ 380,000	\$ 122,318
<b>Year 20</b>	<b>\$ 400,000</b>	<b>\$ 134,550</b>
Year 21	\$ 420,000	\$ 148,005
Year 22	\$ 440,000	\$ 162,805
Year 23	\$ 460,000	\$ 179,086
Year 24	\$ 480,000	\$ 196,995
Year 25	\$ 500,000	\$ 216,694
Year 26	\$ 520,000	\$ 238,364
Year 27	\$ 540,000	\$ 262,200
Year 28	\$ 560,000	\$ 288,420
Year 29	\$ 580,000	\$ 317,262
<b>Year 30</b>	<b>\$ 600,000</b>	<b>\$ 348,988</b>
Year 31	\$ 620,000	\$ 383,887
Year 32	\$ 640,000	\$ 422,276
Year 33	\$ 660,000	\$ 464,503
Year 34	\$ 680,000	\$ 510,953
Year 35	\$ 700,000	\$ 562,049
Year 36	\$ 720,000	\$ 618,254
Year 37	\$ 740,000	\$ 680,079
Year 38	\$ 760,000	\$ 748,087
Year 39	\$ 780,000	\$ 822,896
Year 40	\$ 800,000	\$ 905,185
Year 41	\$ 820,000	\$ 995,704
Year 42	\$ 840,000	\$1,095,274
Year 43	\$ 860,000	\$1,204,801
Year 44	\$ 880,000	\$1,325,282
Year 45	\$ 900,000	\$1,457,810
Year 46	\$ 920,000	\$1,603,591
<b>Year 47</b>	<b>\$ 940,000</b>	<b>\$1,763,950</b>

(Remember, Matt's account paid 3% interest, but inflation was also 3%—no gain.)

# The Rule Of 72

## Compound Interest

## Financial Success

The compound interest and financial success **Rule Of 72** is the most important and simple rule of financial success. It takes two minutes and costs nothing to [learn the Rule Of 72](#). Gain financial success faster when you command the power of compound interest, instead of allowing compound interest to enslave you [debt, finance charges].

Compound interest is powerful. Compound interest should be one of your financial success tools. Don't let compound interest work against you. Financial experts use the **Rule Of 72** to command compound interest and gain financial success. Some financial service providers want you to know the **Rule Of 72** so you can make wise decisions to command compound interest and compound your financial success. Other financial service providers use compound interest to enslave you and compound their own financial success [debt]. They don't want you to know the compound interest and financial success **Rule Of 72**.

THE **RULE OF 72** SHOULD BE TAUGHT IN EVERY SCHOOL. Every young person should understand compound interest and the simple secret to financial success before they begin earning, investing, and spending. [Discover Albert Einstein's compound interest quote](#): "It is the greatest mathematical discovery of all time."

### Learn the Rule of 72

#### Step 1 of 2: How long does it take my money to double?

Divide the number 72 by the percentage rate you are paying on your debt or earning on your investment. Here are two examples.

You borrowed \$1,000 from your friend, who is charging you 6% interest. 72 divided by 6 is 12. That makes 12 the number of years it would take for your debt to your friend to double to \$2,000 if you did not make any payments.

You have a savings account with \$500 deposited in it. It earns 4% interest from the bank. 72 divided by 4 is 18. It will take 18 years for your \$500 to double to \$1,000 if you don't make any deposits.

72 divided by the Interest Percentage = the number of years to double

## **Step 2 of 2: How many times will my money double?**

This step teaches you how important it is for your money to double as many times as possible and for your debts to double as few times as possible.

Determine how many years you will keep your investment before cashing it in. Divide that by the number of years it will take to double each time, the number you figured out in step one.

Now look at what happens to your money each time it doubles.

\$1 ... \$2 ... \$4 ... \$8 ... \$16 ... \$32 ... \$64 ... \$128

You can see that it makes a big difference how many times your money doubles. If you can make it double only a few more times by making just slightly better investments, you can end up with many times more money at retirement or whenever you cash in your investment.

Think about how fast your debts can double with high interest rates such as those charged on most credit card accounts.

You have learned the basics you need to use the rule of 72.

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<http://www.moneychimp.com/features/rule72.htm>

Rule of 72 with calculator

<http://sde.state.ok.us>

Click the PASS link.

