



Money skills you need for life.

**Hands on Banking®**



## **How Hands on Banking® / El futuro en tus manos® Aligns with New Jersey Education Standards**

The *Hands on Banking* program is helping students across the United States grasp important mathematics concepts while gaining valuable skills for life. The curriculum aligns with national and state principles and standards for mathematics, reading, and economics. All units and lessons are grade-level appropriate and are available in both English and Spanish.

The **No Child Left Behind Act** is a federal law designed to improve the academic achievement of all students, particularly those who are minorities, disabled, economically disadvantaged, or have limited English proficiency. The Act requires teachers of mathematics to provide all students with equal opportunities to excel and the mathematical skills and knowledge they need to actively participate in American society. Consistent with the objectives of the No Child Left Behind Act, the *Hands on Banking / El futuro en tus manos* curriculum includes supplemental materials for grade levels 4-12 that is also aligned with both state and national educational standards for mathematics, reading, and economics.

Specifically, *Hands on Banking* Teaching Guides coordinate with:

- New Jersey Core Curriculum Content Standards for Mathematics (2008)
- New Jersey Core Curriculum Content Standards for Social Studies (2009)
- New Jersey Core Curriculum Content Standards for Language Arts Literacy (2004)
- *Principles and Standards for School Mathematics* compiled by the National Council for Teachers of Mathematics (2000)
- *National Standards in K-12 Education*, Jumpstart Coalition for Personal Financial Literacy (2007)
- *Voluntary National Content Standards in Economics*, National Council on Economic Education and National Association of Economics Educators and the Foundation for Teaching Economics (2010)
- *Standards for the English Language Arts*, sponsored by the National Council of Teachers of English and the International Reading Association (1996)
- *Economic and Personal Finance and Marketing Standards*, Business Education Standards from National Business Education Association from Securities Industry Foundation for Economic Education (2002)
- ISTE National Educational Technology Standards for Students (NETS\*S) (2005)
- New Jersey Core Curriculum Content Standards for 21st-Century Life and Careers (2009)
- Department of Defense Education Activity (DODEA) *Curriculum Standards for Mathematics, Reading, and Social Studies. "Teaching the children of America's military families worldwide."* (2009)

We encourage teachers to use the connections below as starting points. Please refer to your own school, district, or local, standards to determine the appropriateness of individual units and lessons for your students.

## **Connections between *Hands on Banking* and New Jersey Core Curriculum Content Standards for Mathematics (2008)**

### **Grade 4**

#### **4.1.4 A. Number Sense**

1. Use real-life experiences, physical materials, and technology to construct meanings for numbers (unless otherwise noted, all indicators for grade 4 pertain to these sets of numbers as well).

- Whole numbers through millions
- Decimals through hundredths

2. Demonstrate an understanding of place value concepts.

3. Demonstrate a sense of the relative magnitudes of numbers.

4. Understand the various uses of numbers.

5. Use concrete and pictorial models to relate whole numbers, commonly used fractions, and decimals to each other, and to represent equivalent forms of the same number.

#### **4.1.4 B. Numerical Operations**

1. Develop the meanings of the four basic arithmetic operations by modeling and discussing a large variety of problems.

- Addition and subtraction: joining, separating, comparing
- Multiplication: repeated addition, area/array
- Division: repeated subtraction, sharing

2. Develop proficiency with basic multiplication and division number facts using a variety of fact strategies (such as “skip counting” and “repeated subtraction”) and then commit them to memory.

3. Construct, use, and explain procedures for performing whole number calculations and with:

- Pencil-and-paper
- Mental math
- Calculator

4. Use efficient and accurate pencil-and-paper procedures for computation with whole numbers.

- Addition of 3-digit numbers
- Subtraction of 3-digit numbers
- Multiplication of 2-digit numbers
- Division of 3-digit numbers by 1-digit numbers

5. Construct and use procedures for performing decimal addition and subtraction.

6. Count and perform simple computations with money.

- Standard dollars and cents notation

7. Select pencil-and-paper, mental math, or a calculator as the appropriate computational method in a given situation depending on the context and numbers.

8. Check the reasonableness of results of computations.

#### **4.1.4 C. Estimation**

2. Construct and use a variety of estimation strategies (e.g., rounding and mental math) for estimating both quantities and the results of computations.

3. Recognize when an estimate is appropriate, and understand the usefulness of an estimate as distinct from an exact answer.

## **Grade 5**

### **4.1.5 A. Number Sense**

1. Use real-life experiences, physical materials, and technology to construct meanings for numbers (unless otherwise noted, all indicators for grade 5 pertain to these sets of numbers as well).

. All decimals

2. Recognize the decimal nature of United States currency and compute with money.

4. Use whole numbers, fractions, and decimals to represent equivalent forms of the same number.

### **4.1.5 B. Numerical Operations**

1. Recognize the appropriate use of each arithmetic operation in problem situations.

2. Construct, use, and explain procedures for performing addition and subtraction with fractions and decimals with:

. Pencil-and-paper

. Mental math

. Calculator

3. Use an efficient and accurate pencil-and-paper procedure for division of a 3-digit number by a 2-digit number.

4. Select pencil-and-paper, mental math, or a calculator as the appropriate computational method in a given situation depending on the context and numbers.

5. Check the reasonableness of results of computations.

### **4.1.5 C. Estimation**

1. Use a variety of estimation strategies for both number and computation.

2. Recognize when an estimate is appropriate, and understand the usefulness of an estimate as distinct from an exact answer.

3. Determine the reasonableness of an answer by estimating the result of operations.

## **Grade 6**

### **4.1.6 A. Number Sense**

1. Use real-life experiences, physical materials, and technology to construct meanings for numbers (unless otherwise noted, all indicators for grade 6 pertain to these sets of numbers as well).

• All integers

• All decimals

2. Recognize the decimal nature of United States currency and compute with money.

3. Demonstrate a sense of the relative magnitudes of numbers.

5. Understand and use whole-number percents between 1 and 100 in a variety of situations.

6. Use whole numbers, fractions, and decimals to represent equivalent forms of the same number.

7. Develop and apply number theory concepts in problem solving situations.

### **4.1.6 B. Numerical Operations**

1. Recognize the appropriate use of each arithmetic operation in problem situations.

2. Construct, use, and explain procedures for performing calculations with fractions and decimals with:

• Pencil-and-paper

• Mental math

• Calculator

3. Use an efficient and accurate pencil-and-paper procedure for division of a 3-digit number by a 2-digit number.

4. Select pencil-and-paper, mental math, or a calculator as the appropriate computational method in a given situation depending on the context and numbers.
6. Check the reasonableness of results of computations.
7. Understand and use the various relationships among operations and properties of operations.

#### **4.1.6 C. Estimation**

1. Use a variety of strategies for estimating both quantities and the results of computations.
2. Recognize when an estimate is appropriate, and understand the usefulness of an estimate as distinct from an exact answer.
3. Determine the reasonableness of an answer by estimating the result of operations.

### **Grade 7**

#### **4.1.7 A. Number Sense**

1. Extend understanding of the number system by constructing meanings for the following (unless otherwise noted, all indicators for grade 7 pertain to these sets of numbers as well).

- Percents

3. Understand and use ratios, proportions, and percents (including percents greater than 100 and less than 1) in a variety of situations.
5. Use whole numbers, fractions, decimals, and percents to represent equivalent forms of the same number.

#### **4.1.7 B. Numerical Operations**

1. Use and explain procedures for performing calculations with integers and all number types named above with:

- Pencil-and-paper
- Mental math
- Calculator

#### **4.1.7 C. Estimation**

1. Use equivalent representations of numbers such as fractions, decimals, and percents to facilitate estimation.

### **Grade 8**

#### **4.1.8 A. Number Sense**

1. Extend understanding of the number system by constructing meanings for the following (unless otherwise noted, all indicators for grade 8 pertain to these sets of numbers as well):

- Percents

3. Understand and use ratios, proportions, and percents (including percents greater than 100 and less than 1) in a variety of situations.
5. Use whole numbers, fractions, decimals, and percents to represent equivalent forms of the same number.

#### **4.1.8 B. Numerical Operations**

1. Use and explain procedures for performing calculations involving addition, subtraction, multiplication, division, and exponentiation with integers and all number types named above with:

- Pencil-and-paper
- Mental math
- Calculator

4. Solve problems involving proportions and percents.

### **4.1.8 C. Estimation**

2. Use equivalent representations of numbers such as fractions, decimals, and percents to facilitate estimation.
3. Recognize the limitations of estimation and assess the amount of error resulting from estimation.

### **Grades 9-12**

**STANDARD 4.1: Number and Numerical Operations** – All students will develop number sense and will perform standard numerical operations and estimations on all types of numbers in a variety of ways.

#### **4.1.12A. Number Sense**

1. Extend understanding of the number system to all real numbers.

#### **4.1.12 B. Numerical Operations**

1. Extend understanding and use of operations to real numbers and algebraic procedures.

**At each grade level, with respect to content appropriate for that grade level, students will:**

#### **4.5 A. Problem Solving**

1. Learn mathematics through problem solving, inquiry, and discovery.
2. Solve problems that arise in mathematics and in other contexts.
  - Open-ended problems
  - Non-routine problems
  - Problems with multiple solutions
  - Problems that can be solved in several ways
3. Select and apply a variety of appropriate problem-solving strategies (e.g., “try a simpler problem” or “make a diagram”) to solve problems.
4. Pose problems of various types and levels of difficulty.

#### **4.5 B. Communication**

1. Use communication to organize and clarify mathematical thinking.
  - Reading and writing
  - Discussion, listening, and questioning
2. Communicate mathematical thinking coherently and clearly to peers, teachers, and others, both orally and in writing.

4. Use the language of mathematics to express mathematical ideas precisely.

#### **4.5 C. Connections**

1. Recognize recurring themes across mathematical domains (e.g., patterns in number, algebra, and geometry).
2. Use connections among mathematical ideas to explain concepts
3. Recognize that mathematics is used in a variety of contexts outside of mathematics.
4. Apply mathematics in practical situations and in other disciplines.
6. Understand how mathematical ideas interconnect and build on one another to produce a coherent whole.

#### **4.5 D. Reasoning**

1. Recognize that mathematical facts, procedures, and claims must be justified.
4. Rely on reasoning, rather than answer keys, teachers, or peers, to check the correctness of their problem solutions.

#### **4.5 E. Representations**

1. Create and use representations to organize, record, and communicate mathematical ideas.
  - Pictorial representations (e.g., diagrams, charts, or tables)

- Symbolic representations (e.g., a formula)
- 2. Select, apply, and translate among mathematical representations to solve problems.
- 3. Use representations to model and interpret physical, social, and mathematical phenomena.

#### **4.5 F. Technology**

1. Use technology to gather, analyze, and communicate mathematical information.
4. Use calculators as problem-solving tools (e.g., to explore patterns, to validate solutions).

### **Connections between *Hands on Banking* and New Jersey Core Curriculum Content Standards for Social Studies (2009)**

#### **Grade 4**

##### **C. Economics, Innovation, and Technology**

- People make decisions based on their needs, wants, and the availability of resources..
- Economics is a driving force for the occurrence of various events and phenomena in societies.
- Interaction among various institutions in the local, national, and global economies influence policymaking and societal outcomes.
- Availability of resources affects economic outcomes.
- Understanding of financial instruments and outcomes assists citizens in making sound decisions about money, savings, spending, and investment.

#### **Grade 8**

##### **6.5.8 A. Economic Literacy**

1. Discuss how needs and wants change as one ages and the impact of planning, spending and saving.
3. Compare ways to save money, including checking and savings accounts, stocks and bonds, and the relationship between risk and return in investments.
4. Describe the role credit plays in the economy and explain the difference in cost between cash and credit purchases.

##### **6.5.8 B. Economics and Society**

5. Compare and contrast various careers, examining educational requirements and costs, salary and benefits, longevity, impact on society and the economy, and demand.
7. Discuss the need for ethical behavior in economic decisions and financial transactions.

### **Connections between *Hands on Banking* and New Jersey Core Curriculum Content Standards for Language Arts Literacy (2004)**

**Standard 3.1 – Reading:** All students will understand and apply the knowledge of sounds, letters, and words in written English to become independent and fluent readers and will read a variety of materials and texts with fluency and comprehension

#### **Grade 4**

##### **3.1.4 C. Decoding and Word Recognition**

1. Use letter-sound correspondence and structural analysis (e.g., roots, affixes) to decode words.
2. Know and use common word families to decode unfamiliar words.
3. Recognize compound words, contractions, and common abbreviations.

##### **3.1.4 E. Reading Strategies (before, during, and after reading)**

1. Use knowledge of word meaning, language structure, and sound-symbol relationships to check understanding when reading.

2. Identify specific words or passages causing comprehension difficulties and seek clarification.

**3.1.4 F. Vocabulary and Concept Development**

1. Infer word meanings from learned roots, prefixes, and suffixes.

2. Infer specific word meanings in the context of reading passages.

4. Use a grade-appropriate dictionary (independently) to define unknown words.

**3.1.4 G. Comprehension Skills and Response to Text**

5. Follow simple multiple-steps in written instructions.

**Grade 5**

**3.1.5 C. Decoding and Word Recognition**

2. Use context clues or knowledge of phonics, syllabication, prefixes, and suffixes to decode new words.

3. Interpret new words correctly in context.

4. Apply spelling and syllabication rules that aid in decoding and word recognition.

**3.1.5 D. Fluency**

1. Adjust reading speed appropriately for different purposes and audiences.

2. Apply knowledge of letter-sound associations, language structures, and context to recognize words.

5. Apply self-correcting strategies to decode and gain meaning from print both, orally and silently.

**3.1.5 E. Reading Strategies (before, during, and after reading)**

1. Activate prior knowledge and anticipate what will be read or heard.

2. Vary reading strategies according to their purpose for reading and the nature of the text.

3. Reread to make sense of difficult paragraphs or sections of text.

4. Make revisions to text predictions during and after reading.

**3.1.5 F. Vocabulary and Concept Development**

1. Infer word meanings from learned roots, prefixes, and suffixes.

2. Infer specific word meanings in the context of reading passages.

4. Use a grade-level appropriate dictionary independently to define unknown words. W

**Grade 6**

**3.1.6 A. Concepts About Print/Text**

1. Use a text index and glossary independently and appropriately.

2. Survey and explain text features that contribute to comprehension (e.g., headings, introductory, concluding paragraphs).

3. Recognize and use common print formats to obtain information (e.g., newspapers, magazines, electronic sources).

**3.1.6 C. Decoding and Word Recognition**

1. Use a dictionary to decode new words independently.

2. Use context clues or knowledge of phonics, syllabication, prefixes, and suffixes to decode new words.

3. Apply knowledge of new words correctly (refer to word parts and word origin).

4. Apply spelling and syllabication rules that aid in decoding and word recognition.

**3.1.6 D. Fluency**

1. Adjust reading speed appropriately for different purposes and audiences.

4. Apply self-correcting strategies to decode and gain meaning from print, both orally and silently.

**3.1.6 E. Reading Strategies (before, during, and after reading)**

1. Activate prior knowledge and anticipate what will be read or heard.
2. Vary reading strategies according to their purpose for reading and the nature of the text.
3. Reread to make sense of difficult paragraphs or sections of text.
5. Use reference aids for word meanings when reading.

**3.1.6 F. Vocabulary and Concept Development**

1. Infer word meanings from learned roots, prefixes, and suffixes.
2. Infer specific word meanings in the context of reading passages.

**3.1.6 G. Comprehension Skills and Response to Text**

4. Construct meaning from text by making conscious connections to self, an author, and others.

**Grade 7**

**3.1.7 A. Concepts About Print/Text**

1. Identify and use common textual features (e.g., paragraphs, topic, sentence, index, glossary, table of contents) and graphic features, (e.g., charts, maps, diagrams) to comprehend information.

**3.1.7 C. Decoding and Word Recognition**

3. Continue to use structural analysis and context analysis to decode new words.

**3.1.7 D. Fluency**

4. Reread informational text for clarity.

**3.1.7 E. Reading Strategies (before, during, and after reading)**

1. Monitor reading for understanding by setting a purpose for reading, making and adjusting predictions, asking essential questions, and relating new learning to background experiences.
2. Use increasingly complex text guides to understand different text structure and organizational patterns (e.g. chronological sequence or comparison and contrast).

**3.1.7 F. Vocabulary and Concept Development**

1. Develop an extended vocabulary through both listening and independent reading.

**3.1.7 G. Comprehension Skills and Response to Text**

8. Read critically by identifying, analyzing, and applying knowledge of the purpose, structure, and elements of nonfiction and providing support from the text as evidence of understanding.

**Grade 8**

**3.1.8 C. Decoding and Word Recognition**

2. Apply spelling and syllabication rules that aid in decoding and word recognition.
4. Apply knowledge of word structures and patterns to read with automaticity.

**3.1.8 D. Fluency**

3. Apply self-correcting strategies automatically to decode and gain meaning from print both orally and silently.
4. Adjust reading rate in response to the type of text and level of difficulty (e.g. recreational reading vs. informational reading).

**3.1.8 E. Reading Strategies (before, during, and after reading)**

1. Monitor reading for understanding by automatically setting a purpose for reading, making and adjusting predictions, asking essential questions, and relating new learning to background experiences.
2. Use increasingly complex text guides to understand different text structure and organizational patterns (e.g. chronological sequence or comparison and contrast).

**3.1.8 F. Vocabulary and Concept Development**

1. Develop and refine an extended vocabulary through listening and exposure to a variety of texts and independent reading.

2. Clarify word meanings through the use of a word's definition, example, restatement, or contrast.

**3.1.8 G. Comprehension Skills and Response to Text**

5. Read critically by identifying, analyzing, and applying knowledge of the purpose, structure, and elements of nonfiction and providing support from the text as evidence of understanding.

**Grades 9-12**

**3.1.12 D. Fluency**

1. Read developmentally appropriate materials at an independent level with accuracy and speed.
2. Use appropriate rhythm, flow, meter, and pronunciation when reading.
3. Read a variety of genres and types of text with fluency and comprehension.

**3.1.12 E. Reading Strategies (before, during, and after reading)**

1. Identify, assess, and apply personal reading strategies that were most effective in previous learning from a variety of texts.
2. Practice visualizing techniques before, during, and after reading to aid in comprehension.

**3.1.12 F. Vocabulary and Concept Development**

1. Use knowledge of word origins and word relationships, as well as historical and literary context clues, to determine the meanings of specialized vocabulary.
2. Use knowledge of root words to understand new words.
3. Apply reading vocabulary in different content areas.

**3.1.12 G. Comprehension Skills and Response to Text**

1. Identify, describe, evaluate, and synthesize the central ideas in informational texts.
13. Read, comprehend, and be able to follow information gained from technical and instructional manuals (e.g., how-to books, computer manuals, or instructional manuals).

**Standard 3.4 – Listening:** All students will listen actively to information from a variety of sources in a variety of situations.

**Grade 4**

**3.4.4 A. Active Listening**

1. Listen actively for a variety of purposes such as enjoyment and obtaining information.
3. Interpret vocabulary gained through listening.

**3.4.4 B. Listening Comprehension**

3. Demonstrate competence in active listening by interpreting and applying received information to new situations and solving problems.

**Grade 5**

**3.4.5 A. Active Listening**

1. Listen actively for a variety of purposes such as enjoyment and obtaining information.

**3.4.5 B. Listening Comprehension**

2. Demonstrate competence in active listening by interpreting and applying received information to new situations and in solving problems.

**Grade 6**

**3.4.6 A. Active Listening**

1. Listen actively for a variety of purposes such as enjoyment and obtaining information.

**3.4.6 B. Listening Comprehension**

2. Demonstrate competence in active listening by interpreting and applying received information to new situations and in solving problems.

**Standard 3.5 - Strands and Cumulative Progress Indicators:** All students will access, view, evaluate, and respond to print, non print, and electronic texts and resources.

#### **Grade 4**

##### **3.5.4 A. Constructing Meaning**

1. Interpret information found in pictorial graphs, map keys, and icons on a computer screen.
2. Respond to and evaluate the use of illustrations to support text.
3. Use graphs, charts, and diagrams to report data.

##### **3.5.4 B. Visual and Verbal Messages**

1. Understand that creators of both print media and electronic media have a purpose and target audience for their work.

#### **Grade 5**

##### **3.5.5 A. Constructing Meaning**

2. Use graphs, charts, and diagrams to report data.

##### **3.5.5 B. Visual and Verbal Messages**

1. Understand that creators of both print media and electronic media have a purpose and target audience for their work.
2. Evaluate media messages for credibility.

#### **Grade 6**

##### **3.5.6 A. Constructing Meaning**

2. Use graphs, charts, and diagrams to report data.

##### **3.5.6 B. Visual and Verbal Messages**

1. Understand that creators of both print media and electronic media have a purpose and target audience for their work.

### **Connections between *Hands on Banking* and New Jersey Core Curriculum Content Standards for 21<sup>st</sup> –Century Life and Careers**

**Standard 9.2 Personal Financial Literacy:** *All students will develop skills and strategies that promote personal and financial responsibility related to financial planning, savings, investment, and charitable giving in the global economy.*

#### **Grade 4**

##### **9.2.4 E. Consumer and Personal Finance**

1. Demonstrate a basic understanding of the value of money.
2. Identify various sources of money for personal spending.
3. Explore the relationship among wants, needs, and resources.
4. Understand that prices of goods and services can be compared to make decisions about purchases.
5. Explain how people can improve their ability to earn income by gaining new knowledge, skills, and experiences.
6. Describe how to earn and save money in order to purchase a desired item.

#### **Grade 8**

##### **9.2.8 E. Consumer and Personal Finance Skills**

1. Identify and demonstrate personal finance skills in checkbook maintenance and investing.

2. Construct a simple personal savings/spending plan.
3. Understand that people make financial choices that have costs, benefits, and consequences.
4. Explain the difference in cost between cash and credit purchases.
5. Compare prices of similar items from different sellers.

## **Grade 12**

### **9.2.12.B Money Management**

**Money management involves setting financial goals.**

1. Prioritize financial decisions by systematically considering alternatives and possible consequences.
2. Compare strategies for saving and investing and the factors that influence how much should be saved or invested to meet financial goals.
3. Construct a plan to accumulate emergency “rainy day” funds.

**Money management is reliant on developing and maintaining personal budgets.**

4. Analyze how income and spending plans are affected by age, needs, and resources
5. Analyze how changes in taxes, inflation, and personal circumstances can affect a personal budget
6. Design and utilize a simulated budget to monitor progress of financial plans.

**Money management requires understanding of cash flow systems and business practices.**

8. Describe and calculate interest and fees that are applied to various forms of spending, debt, and saving.

### **9.2.12.C Credit and Debt Management**

**Credit management includes making informed choices about sources of credit and requires an understanding of the cost of credit.**

2. Compare and compute interest and compound interest and develop an amortization table using business tools.

### **9.2.12.D Planning, Saving, and Investing**

**Information about investment options assists with financial planning.**

2. Assess factors that influence financial planning

### **9.2.12.E Becoming a Critical Consumer**

**The ability to prioritize wants and needs assists in making informed investments, purchases, and decisions.**

1. Analyze and apply multiple sources of financial information when prioritizing financial decisions
2. Determine how objective, accurate, and current financial information affects the prioritization of financial decisions.

**We congratulate you on your support of financial education in your schools, and thank you for your interest in our program. We welcome your questions and comments, or if you would like additional information, please contact us at [hobinfo@wellsfargo.com](mailto:hobinfo@wellsfargo.com)**