



Money skills you need for life.

Hands on Banking®



How Hands on Banking® / El futuro en tus manos® Aligns with New Hampshire 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:

- *K-12 Mathematics New Hampshire Curriculum Framework* (2006)
- *New England Common Assessment Program (NECAP) Grade Level Expectations (GLEs) for Reading* (2006)
- *New Hampshire K-12 Social Studies Curriculum Framework* (2006)
- *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 (2007)
- *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)
- 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 *K-12 Mathematics New Hampshire Curriculum Framework (2006)*

Number and Operations

Grade 4

M:N&O:4:1 Demonstrates conceptual understanding of rational numbers with respect to: whole numbers from 0 to 999,999 ... decimals as hundredths within the context of money

M:N&O:4:3 Demonstrates conceptual understanding of mathematical operations

M:N&O:4:6 Mentally adds and subtracts whole number facts through 20 (addends whose sum is at most 20 and related subtraction facts);

multiplies whole number facts to a product of 100, and calculates related division facts; adds two-digit whole numbers, combinations of two-digit and 3-digit whole numbers that are multiples of ten, and 4-digit whole numbers that are multiples of 100 (limited to two addends) (e.g., $67 + 24$; $320 + 430$; $320 + 90$; $1,300 + 1,400$); and subtracts a one-digit whole number from a two-digit whole number (e.g., $67 - 9$); and subtracts combinations of two-digit and three-digit whole numbers that are multiples of ten (e.g., $50 - 20$, $230 - 80$, $520 - 200$).

M:N&O:4:7 Makes estimates in a given situation by identifying when estimation is appropriate, selecting the appropriate method of estimation, and evaluating the reasonableness of solutions appropriate to grade level GLEs across content strands

Grade 5

M:N&O:5:1 Demonstrates conceptual understanding of rational numbers with respect to:

whole numbers from 0 to 9,999,999 ... **decimals** (to thousandths), or **benchmark percents** (10%, 25%, 50%, 75% or 100%)

M:N&O:5:3 Demonstrates conceptual understanding of mathematical operations

M:N&O:5:6 Mentally calculates change back from \$1.00, \$5.00, and \$10.00; calculates multiplication and related division facts to a product of 144; multiplies a two-digit whole number by a one-digit whole number (e.g., 45×5), two-digit whole numbers that are multiples of ten (e.g., 50×60), a three-digit whole number that is a multiple of 100 by a two- or three-digit number which is a multiple of 10 or 100, respectively (e.g., 400×50 , 400×600); and divides 3- and 4-digit multiples of powers of ten by their compatible factors

M:N&O:5:7 Makes estimates in a given situation by identifying when estimation is appropriate, selecting the appropriate method of estimation, determining the level of accuracy needed given the situation, analyzing the effect of the estimation method on the accuracy of results, and evaluating the reasonableness of solutions appropriate to grade level GLEs across content strands.

Grade 6

M:N&O:6:3 Demonstrates conceptual understanding of mathematical operations by adding and subtracting positive fractions and integers; and multiplying and dividing fractions and decimals.

M:N&O:6:4 Accurately solves problems involving single or multiple operations on fractions (proper, improper, and mixed), or decimals; and addition or subtraction of integers; percent of a whole

M:N&O:6:6 Uses a variety of mental computation strategies to solve problems

M:N&O:6:7 Makes estimates in a given situation by identifying when estimation is appropriate, selecting the appropriate method of estimation, determining the level of accuracy needed given the situation, analyzing the effect of the estimation method on the accuracy of results, and evaluating the reasonableness of solutions appropriate to grade level GLEs across content strands.

Grade 7

M(N&O)–7–4 Accurately solves problems involving proportional reasoning; percents involving discounts, tax, or tips; and rates.

M:N&O:7:6 Uses a variety of mental computation strategies to solve problems

M:N&O:7:7 Makes estimates in a given situation (including tips, discounts, and tax) by identifying when estimation is appropriate, selecting the appropriate method of estimation, determining the level of accuracy needed given the situation, analyzing the effect of the estimation method on the accuracy of results, and evaluating the reasonableness of solutions appropriate to grade level GLEs across content strands.

Grade 8

M(N&O)–8–4 Accurately solves problems involving proportional reasoning (percent increase or decrease, interest rates, markups, or rates); multiplication or division of integers; and squares, cubes, and taking square or cube roots.

M:N&O:8:6 Uses a variety of mental computation strategies to solve problems

M:N&O:8:7 Makes estimates in a given situation (including tips, discounts, tax, and the value of a non-perfect square root as between two whole numbers) by identifying when estimation is appropriate, selecting the appropriate method of estimation; determining the level of accuracy needed given the situation; analyzing the effect of the estimation method on the accuracy of results; and evaluating the reasonableness of solutions appropriate to grade level GLEs across content strands.

Problem Solving, Reasoning and Proof

Grades 3-5

M:PRP:5:1 Students will use problem-solving strategies to investigate and understand increasingly complex mathematical content and be able to:

- Determine the reasonableness of solutions to real-world problems.
- Generalize solutions and apply strategies to new problem situations.
- Add to the repertoire of problem-solving strategies (e.g., looking for similar problems) and use those strategies in more sophisticated ways.
- **Solve problems with multiple solutions, recognize when a problem has no solution, and recognize problems where more information is needed.**
- Translate results of a computation into solutions that fit the real-world problem

Grades 6-8

M:PRP:8:1 Students will use problem-solving strategies to investigate and understand increasingly complex mathematical content and be able to:

Use problem-solving strategies appropriately and effectively for a given situation.

- Determine, collect and organize the relevant information needed to solve real-world problems.
- Apply integrated problem-solving strategies to solve problems in the physical, natural, and social sciences and in pure mathematics.

- Use technology when appropriate to solve problems.
- Reflect on solutions and the problem-solving process for a given situation and refine strategies as needed.

Communication, Connections, and Representations

Grades 3-5

M:CCR:5:3 Students will recognize, explore, and develop mathematical connections and be able to:

- See mathematics as an integrated whole.
- Recognize relationships among different topics in mathematics.
- Recognize and use mathematics in other curriculum areas and in their daily lives.
- Link concepts and procedures.
- Use mathematical skills, concepts, and applications in other disciplines (e.g., graphs in social studies, patterns in art, or music and geometry in technology education).

Grades 6-8

M:CCR:8:3 Students will recognize, explore, and develop mathematical connections and be able to:

- Connect new mathematical ideas to those already studied and build upon them.
- Understand that many real-world applications require an understanding of mathematical concepts (e.g., personal finance, running a business, building a house, following a recipe, or sending a rocket to the moon).

Explain in oral and written form the relationships between a real-world problem and an appropriate mathematical model

High School Math

Number and Operations

- **M:N&O:10:4** Accurately solves problems involving rational numbers within mathematics, across content strands, disciplines or contexts (with emphasis on, but not limited to, proportions, **percents, ratios, and rates**).
- **M:N&O:HS:6** Uses a variety of mental computation strategies to solve problems (e.g., using compatible numbers, applying properties of operations, using mental imagery, using patterns) and to **determine the reasonableness of answers**.

Problem Solving, Reasoning, and Proof

- **M:PRP:HS:1** Students will use problem-solving strategies to investigate and understand increasingly complex mathematical content and be able to:
 - Expand the repertoire of problem-solving strategies and use those strategies in more sophisticated ways.
 - Use technology whenever appropriate to solve real-world problems (e.g., personal finance, wages, banking and credit, home improvement problems, measurement, taxes, business situations, purchasing, and transportation).
 - Formulate and redefine problem situations as needed to arrive at appropriate conclusions.

Connections between *Hands on Banking* and *New England Common Assessment Program (NECAP) Grade Level Expectations (GLEs) for Reading (2006)*

Grade 4

R-4-2.1 Using strategies to unlock meaning (e.g., knowledge of word structure, including prefixes/suffixes and base words; or context clues; or other resources, such as dictionaries, glossaries; or prior knowledge)

R-4-7: Demonstrate initial understanding of informational texts (expository and practical texts) by...

R-4-7.2 Using information from the text to answer questions related to explicitly stated main/central ideas or key details

Grade 5

R-5-11 Reads grade-level appropriate material with accuracy

R-5-1 Applies word identification/decoding strategies

R-5-2 Students identify the meaning of unfamiliar vocabulary

R-5-7 Demonstrate initial understanding of informational texts

R-5-12 Demonstrates ability to monitor comprehension for different types of texts and purposes

R-5-13 Uses comprehension strategies (flexibly and as needed) before, during, and after reading literary and information text

R-5-15 Research by reading multiple sources (including print and non-print texts) to report information, solve a problem or formulate a judgment

Grade 6

R-6-11 Reads grade-level appropriate material with accuracy

R-6-1 Applies word identification/decoding strategies

R-6-2 Students identify the meaning of unfamiliar vocabulary

R-6-7 Demonstrate initial understanding of informational texts

R-6-12 Demonstrates ability to monitor comprehension for different types of texts and purposes

R-6-13 Uses comprehension strategies (flexibly and as needed) before, during, and after reading literary and information text

R-6-15 Research by reading multiple sources (including print and non-print texts) to report information, solve a problem or formulate a judgment

Grade 7

R-7-11 Reads grade-level appropriate material with accuracy

R-7-1 Applies word identification/decoding strategies

R-7-2 Students identify the meaning of unfamiliar vocabulary

R-7-7 Demonstrate initial understanding of informational texts

R-7-12 Demonstrates ability to monitor comprehension for different types of texts and purposes

R-7-13 Uses comprehension strategies (flexibly and as needed) before, during, and after reading literary and information text

R-7-15 Research by reading multiple sources (including print and non-print texts) to report information, solve a problem or formulate a judgment

Grade 8

R-8-11 Reads grade-level appropriate material with accuracy

R-8-1 Applies word identification/decoding strategies

R-8-2 Students identify the meaning of unfamiliar vocabulary

R-8-7 Demonstrate initial understanding of informational texts

R-8-12 Demonstrates ability to monitor comprehension for different types of texts and purposes

R-8-13 Uses comprehension strategies (flexibly and as needed) before, during, and after reading literary and information text

R-8-15 Research by reading multiple sources (including print and non-print texts) to report information, solve a problem or formulate a judgment

HIGH SCHOOL:

READING FLUENCY AND ACCURACY (R-11)

Grade 10

R-10-11 Reads grade-level appropriate material with:

- R-10-11.1 Accuracy: reading material appropriate for high school with at least 90-94% accuracy (Local) (See Appendix F for sample titles.)

Grade 12

R-12-11 Reads grade-level appropriate material with:

- R-12-11.1 Accuracy: reading material appropriate for high school with at least 90-94% accuracy (Local) (See Appendix F for sample titles.)

VOCABULARY STRATEGIES and BREADTH of VOCABULARY (R-2)

Grade 10

R-10-2 Students identify the meaning of unfamiliar vocabulary by...

- R-10-2.1a Using strategies to unlock meaning (e.g., knowledge of word structure) including prefixes/suffixes, common roots, or word origins; or context clues; or resources including dictionaries, glossaries, or thesauruses to determine definition, pronunciation, etymology, or usage of words; or prior knowledge) (State)

Grade 12

R-12-2 Students identify the meaning of unfamiliar vocabulary by...

- R-12-2.1 Using strategies to unlock meaning (e.g., knowledge of word structure, including prefixes/suffixes, common roots, or word origins; or context clues; or resources including dictionaries, glossaries, or thesauruses to determine definition, pronunciation, etymology, or usage of words; or prior knowledge) (Local)

INITIAL UNDERSTANDING of INFORMATIONAL TEXT (R-7.3)

Grade 10

R-10-7 Demonstrate initial understanding of informational texts (expository and practical texts) by . . .

- R-10-7.4 Generating questions before, during, and after reading to enhance understanding and recall; expand understanding and/or gain new information (Local)

Grade 12

R-12-7 Demonstrate initial understanding of informational texts (expository and practical texts)

- R-12--7.4 Generating questions before, during, and after reading to enhance understanding and recall; expand understanding and/or gain new information (Local)

READING STRATEGIES: Strategies for Monitoring and Adjusting (R-12)

Grade 10

R-10-12 Demonstrates ability to monitor comprehension for different types of text and purposes by...

- R-10-12.1 Using a range of self-monitoring and self- correction approaches (e.g., rereading, adjusting rate, sub-vocalizing, consulting resources, questioning, using flexible note taking/mapping systems, skimming, scanning, etc.) (Local)

Grade 12

R-12-12 Demonstrates ability to monitor comprehension and strategy use for different types of texts and purposes by...

- R-12--12.1 Using a range of self-monitoring and self- correction approaches (e.g., rereading, adjusting rate, sub-vocalizing, consulting resources, questioning, using flexible note taking/mapping systems, skimming, scanning, etc.) (Local)

READING STRATEGIES: Reading Comprehension Strategies (R-13)

R -10-13 Uses Comprehension strategies (flexibly and as needed) before, during, and after reading literary and informational text (Local)

Grade 12

R-12-13 Uses Comprehension strategies (flexibly and as needed) before, during, and after reading literary and informational text (Local)

Connections between Hands on Banking and New Hampshire K-12 Social Studies Curriculum Framework (2006)

SS:EC:1: Economics and the Individual

Grade 4

SS:EC:4:1.1: Identify the factors of production and explain how businesses use these to produce goods and services. (Themes: D: Material Wants and Needs, G: Science, Technology, and Society)

SS:EC:4:1.2: Describe what markets are and define individual's roles as consumers and producers in a market economy using circular flow models. (Themes: D: Material Wants and Needs, G: Science, Technology, and Society)

SS:EC:4:1.3: Explain how decisions by consumers and producers affect and are affected by the economy. (Themes A: Conflict and Cooperation C: People, Places and Environment D: Material Wants and Needs)

Grades 5-6

SS:EC:6:1.1: Identify the role of the individual in factor and product markets. (Themes: D: Material Wants and Needs)

SS:EC:6:1.2: Explain how specialization and productivity are related. (Themes: D: Material Wants and Needs, G: Science, Technology, and Society)

SS:EC:6:1.3: Recognize the relationship between productivity and wages, and between wages and standard of living. (Themes: D: Material Wants and Needs, H: Individualism, Equality and Authority)

SS:EC:2: Basic Economic Concepts

Grade 4

SS:EC:4:2.1: Explain why needs and wants are unlimited while resources are limited. (Themes: C: People, Places and Environment, D: Material Wants and Needs)

SS:EC:4:2.2: Explain why scarcity requires individuals, households, businesses and governments to make economic choices and how economic choices always involve an opportunity cost. (Themes: A: Conflict and Cooperation, D: Material Wants and Needs)

SS:EC:4:2.3: Describe different ways individuals, households, businesses and governments make economic decisions, e.g., developing alternative choices or budgets. (Themes: A: Conflict and Cooperation, D: Material Wants and Needs, G: Science, Technology, and Society)

SS:EC:4:2.4: Define supply and demand and describe factors that can cause a change in supply and demand. (Themes: D: Material Wants and Needs, F: Global Transformation)

Grades 5-6

SS:EC:6:2.1: Determine the opportunity cost of decisions, e.g., the purchase of an item or the expenditure of time. (Themes: D: Material Wants and Needs)

SS:EC:6:2.2: Identify the factors of production, e.g., entrepreneurship, human resources, capital resources, and natural resources. (Themes: D: Material Wants and Needs, G: Science, Technology, and Society)

SS:EC:6:2.3: Recognize that shortage and surplus affect the price and availability of goods and services, e.g., swimsuits in bad weather, seasonal sales, or fads. (Themes: D: Material Wants and Needs, H: Individualism, Equality and Authority)

Grades 7-8

SS:EC:8:2.1: Identify and explain the determinants of supply and demand, e.g., income, tastes, or technology. (Themes: D: Material Wants and Needs, G: Science, Technology, and Society, H: Individualism, Equality and Authority)

SS:EC:8:2.2: Explain the elements of entrepreneurship, e.g., idea development, risk-taking, or management skills. (Themes: D: Material Wants and Needs, E: Cultural Development, Interaction, and Change, H: Individualism, Equality and Authority)

SS:EC:4: Financial Institutions and the Government

Grade 4

SS:EC:4:4.1: Describe different methods people use to exchange goods and services, e.g., barter or the use of money. (Themes: D: Material Wants and Needs)

Grades 7-8

SS:EC:8:4.1: Explain how interest rates affect individual decisions, e.g., saving, borrowing, or lending money. (Themes: D: Material Wants and Needs, H: Individualism, Equality and Authority)

SS:EC:8:4.2: Identify the different ways in which income can be redistributed, e.g., taxes, welfare, or government loans. (Themes: C: People, Places and Environment, D: Material Wants and Needs)

Standard 4.6 – Personal Finance

Grades 7-8

SS:EC:8:6.1: Compare the advantages and disadvantages of different payment methods. (Themes: D: Material Wants and Needs)

SS:EC:8:6.2: Describe the rights and responsibilities of buyers and sellers in a free market economy. (Themes: D: Material Wants and Needs)

SS:EC:8:6.3: Demonstrate the use of the different types of accounts available from financial institutions, e.g., checking or savings accounts. (Themes: D: Material Wants and Needs)

SS:EC:8:6.4: Students will identify sources of earned and unearned income, e.g., wages or investments. (Themes: D: Material Wants and Needs)

SS:EC:8:6.5: Define and compare saving and investing. (Themes: D: Material Wants and Needs)

SS:EC:8:6.6: Evaluate sources of investment information, and describe how to buy and sell investments. (Themes: D: Material Wants and Needs)

SS:EC:8:6.7: Discuss the importance of taking responsibility for personal financial decisions. (Themes: D: Material Wants and Needs)

SS:EC:8:6.8: Design a plan for earning, spending, saving, and investing. (Themes: D: Material Wants and Needs)

Grades 9-12

Economics (EC:6)

SS:EC:6: Personal Finance - Students will be able to explain the importance of money management, spending credit, saving, and investing in a free market economy

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