A Correlation of

Scott Foresman • Addison Wesley

enVisionMATH™

New York State
Mathematics Core Curriculum Learning Standards

Grades K-6

PEARSON

O/M-179A

Correlation Introduction

This correlation is designed to show the close alignment between ***Scott Foresman-Addison Wesley enVisionMATH***, copyright 2009, Grades K-6, and the **New York State Mathematics Core Curriculum Learning Standards with Grade 3-8 Mathematics Testing Program Guidance, September-April/May-June**. Correlation page references are to the Teacher's Edition and Student Edition.

The **enVisionMATH™** program is based around scientific research on how children learn mathematics as well as on classroom-based evidence that validates proven reliability.

Personalized Curriculum
enVisionMATH™ provides 20 (16 in Kindergarten) focused topics that are coherent, digestible groups of lessons focusing on one or a few related content areas. A flexible sequence of topics is small enough for a district to rearrange into a personalized curriculum that matches the sequence preferred by the district. The curriculum is designed so that all standards can be taught before the major mathematics testing.

Instructional Design
enVisionMATH™ teaches for deep conceptual understanding using research-based best practices. Essential understandings connected by Big Ideas are explicitly stated in the Teacher's Edition. Daily Spiral Review and the Problem of the Day focus foundational skills and allow for ongoing practice with a variety of problem types. Daily interactive concept development encourages students to interact with teachers and other students to develop conceptual understanding.

Visual Learning allows students to benefit from seeing math ideas portrayed pictorially as well as being able to see connections between ideas. **enVisionMATH™** created a Visual Learning Bridge which is a step-by step bridge between the interactive learning activity and the lesson exercises to help students focus on one idea at a time and see the connections within the sequence of ideas. The strong sequential visual/verbal connections deepen conceptual understanding for students of all learning modalities and are particularly effective with English language learners and struggling readers. Guiding questions in blue type help the teacher guide students through the examples, ask probing questions to stimulate higher order thinking, and allow for checking of understanding.

Differentiated Instruction
enVisionMATH™ engages and interests all students with leveled activities for ongoing differentiated instruction. A Teacher-Directed Intervention activity at the end of every lesson provides immediate opportunities to get students on track. In addition, ready made leveled learning centers for each lesson allow different students to do the same activity at different levels at the same time giving the teacher uninterrupted time to focus on reteaching students who require intervention. All centers can be used repeatedly due to the inclusion of a "Try Again" at the end. They can also be used for ongoing review and they can be used year after year. Topic-specific considerations for EL, Special Education, At-Risk, and Advanced students enable the teacher to accommodate the diverse learners in the classroom.

Table of Contents

Scott Foresman-Addison Wesley enVisionMATH
to the
New York State Mathematics
Core Curriculum Learning Standards
Kindergarten

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
Problem Solving Strand	
Students will build new mathematical knowledge through problem solving.	
K.PS.1 Explore, examine, and make observations about a social problem or mathematical situation	**SE/TE: 281–282, 283–284** 3–4, 17–18, 33–34, 51–52, 53–54, 75–76, 79–80, 101–102, 115–116, 117–118, 153–154, 155–156, 157–158, 159–160, 177–178, 179–180, 181–182, 183–184, 185–186, 187–188, 289–290
K.PS.2 Interpret information correctly, identify the problem, and generate possible solutions	**SE/TE: 11–12, 41–42, 189–190, 207–208** 33–34, 35–36, 37–38, 39–40, 43–44, 45–46, 115–116, 117–118, 119–120, 123–124, 125–126, 127–128, 129–130, 161–162, 171–172
Students will solve problems that arise in mathematics and in other contexts.	
K.PS.3 Act out or model with manipulatives activities involving mathematical content from literature and/or story telling	**SE/TE: 17–18, 19–20, 21–22, 23–24, 25–26, 27–28, 109–110, 177–178, 179–180, 181–182, 183–184, 185–186, 187–188, 189–190, 195–196, 197–198, 199–200, 201–202, 203–204, 205–206, 207–208, 255–256, 257–258**
K.PS.4 Formulate problems and solutions from everyday situations (e.g., counting the number of children in the class, using the calendar to teach counting)	**SE/TE: 195–196, 197–198, 199–200, 201–202, 203–204, 205–206, 207–208, 255–256, 257–258, 277–278, 279–280, 301–302** 109–110, 177–178, 179–180, 181–182, 183–184, 185–186, 187–188, 189–190
Students will apply and adapt a variety of appropriate strategies to solve problems.	
K.PS.5 Use informal counting strategies to find solutions	**SE/TE: 55–56, 75–76** 51–52, 53–54, 57–58, 59–60, 63–64, 65–66, 67–68, 79–80, 81–82, 85–86, 87–88, 91–92, 101–102, 103–104, 105–106, 107–108, 109–110, 289–290, 291–292, 293–294, 295–296, 301–302
K.PS.6 Experience teacher-directed questioning process to understand problems	**SE/TE: 3–4, 33–34, 51–52, 75–76, 101–102, 115–116, 117–118, 141–142, 153–154, 155–156, 157–158, 177–178, 179–180, 181–182, 195–196, 197–198, 199–200, 281–282, 289–290, 291–292**
K.PS.7 Compare and discuss ideas for solving a problem with teacher and/or students to justify their thinking	**SE/TE: 10, 18** 3–4, 33–34, 51–52, 75–76, 79–80, 101–102, 103–104, 115–116, 117–118, 129–130, 141–142, 153–154, 155–156, 161–162, 163–164, 167–168, 195–196, 197–198, 199–200, 201–202, 281–282

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
K.PS.8 Use manipulatives (e.g., tiles, blocks) to model the action in problems	**SE/TE: 51–52, 55–56, 75–76, 119–120, 171–172, 177–178, 179–180, 181–182, 183–184, 185– 186, 187–188, 189–190, 195–196, 197–198, 199–200, 201–202, 203–204, 205–206, 207–208, 289–290, 291–292, 293–294, 295–296, 301–302** 11–12, 53–54, 57–58, 59–60, 63–64, 65–66, 67–68, 79–80, 81–82, 85–86, 87–88, 91–92, 141–142
K.PS.9 Use drawings/pictures to model the action in problems	**SE/TE: 51–52, 55–56, 75–76, 123–124, 141–142, 147–148, 177–178, 179–180, 181–182, 183–184, 185–186, 187–188, 189–190, 195–196, 197–198, 199–200, 201–202, 203–204, 205–206, 207–208** 11–12, 53–54, 57–58, 59–60, 63–64, 65–66, 67–68, 79–80, 81–82, 85–86, 87–88, 91–92, 95–96, 109–110, 281–282, 283–284
Students will monitor and reflect on the process of mathematical problem solving.	
K.PS.10 Explain to others how a problem was solved, giving strategies	SE/TE: 265–266 11–12, 141–142
Reasoning and Proof Strand	
Students will recognize reasoning and proof as fundamental aspects of mathematics.	
K.RP.1 Understand that mathematical statements can be true or false	**TE: 200A**
Students will make and investigate mathematical conjectures.	
K.RP.2 Investigate the use of knowledgeable guessing as a mathematical tool	**SE/TE: 161–162, 171–172**
K.RP.3 Explore guesses, using a variety of objects and manipulatives	**SE/TE: 161–162, 165–166, 167–168, 169–170, 171–172**
Students will develop and evaluate mathematical arguments and proofs.	
K.RP.4 Listen to claims other students make	**SE/TE: 22C, 124C, 254C** 109–110, 115–116, 117–118, 119–120, 123–124, 125–126, 127–128, 129–130, 301–302
Communication Strand	
Students will organize and consolidate their mathematical thinking through communication.	
K.CM.1 Understand how to organize their thought processes with teacher guidance	**SE/TE: 153–154, 155–156, 157–158, 159–160, 161–162, 163–164, 165–166, 167–168, 169–170, 171–172** 3–4, 33–34, 35–36, 51–52, 53–54, 75–76, 79–80, 81–82, 85–86, 101–102, 115–116, 177–178, 179–180, 181–182, 183–184, 195–196, 197–198, 253–254, 255–256, 289–290
Students will communicate their mathematical thinking coherently and clearly to peers, teachers, and others.	
K.CM.2 Share mathematical ideas through the manipulation of objects, drawings, pictures, and verbal explanations	**SE/TE: 3–4, 17–18, 19–20, 21–22, 23–24, 25–26, 27–28, 115–116, 117–118, 119–120, 123–124, 125–126, 127–128, 129–130, 137–138, 139–140, 147–148, 153–154, 155–156, 157–158, 159–160, 161–162, 163–164, 165–166, 167–168, 169–170, 171–172, 177–178, 179–180, 181–182, 183–184, 185–186, 187–188, 189–190, 195–196, 197–198, 199–200, 201–202, 203–204, 205–206, 207–208,**

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
continued	**253–254, 255–256, 257–258, 259–260, 263–264, 265–266, 271–272, 273–274, 275–276, 289–290, 291–292, 293–294, 295–296, 301–302** 5–6, 7–8, 33–34, 35–36, 37–38, 51–52, 53–54, 55–56, 75–76, 79–80, 81–82, 85–86, 101–102, 103–104, 105–106, 107–108, 141–142, 277–278, 279–280, 281–282
Students will analyze and evaluate the mathematical thinking and strategies of others.	
K.CM.3 Listen to solutions shared by other students	**SE/TE: 103, 221, 253** 33–34, 35–36, 37–38, 101–102, 103–104, 105–106, 107–108, 115–116, 117–118, 119–120, 123–124, 195–196, 197–198, 199–200, 201–202, 203–204, 253–254, 255–256, 257–258, 259–260, 301–302
K.CM.4 Formulate mathematically relevant questions with teacher guidance	**SE/TE: 291–292** 37–38, 39–40, 41–42, 101–102, 103–104, 105–106, 115–116, 117–118, 119–120, 123–124, 125–126, 195–196, 197–198, 199–200, 201–202, 253–254, 255–256, 257–258, 259–260, 263–264
Students will use the language of mathematics to express mathematical ideas precisely.	
K.CM.5 Use appropriate mathematical terms, vocabulary, and language	**SE/TE: 17–18, 19–20, 21–22, 23–24, 25–26, 27–28, 115–116, 117–118, 119–120, 123–124, 125–126, 127–128, 129–130, 153–154, 155–156, 157–158, 159–160, 161–162, 163–164, 165–166, 167–168, 169–170, 171–172, 199–200, 253–254, 263–264, 265–266, 273–274, 275–276, 289–290, 291–292, 293–294, 295–296, 301–302** 3–4, 41–42, 51–52, 53–54, 75–76, 79–80, 101–102, 109–110, 137–138, 139–140, 177–178, 179–180, 181–182, 195–196, 197–198, 201–202, 255–256, 257–258, 271–272, 277–278
Connections Strand	
Students will recognize and apply mathematics in contexts outside of mathematics.	
K.CN.1 Recognize the presence of mathematics in their daily lives	**SE/TE: 3–4, 5–6, 115–116, 117–118, 119–120, 123–124, 125–126, 127–128, 129–130, 195–196, 197–198, 199–200, 201–202, 203–204, 205–206, 207–208, 253–254, 255–256, 257–258, 259–260, 263–264, 265–266** 11–12, 17–18, 33–34, 51–52, 53–54, 75–76, 79–80, 137–138, 139–140, 153–154, 155–156, 157–158, 177–178, 179–180, 181–182, 273–274, 275–276, 277–278, 289–290, 291–292
K.CN.2 Use counting strategies to solve problems in their daily lives	**SE/TE: 225–226, 227–228, 229–230,** 51–52, 53–54, 55–56, 57–58, 59–60, 63–64, 65–66, 67–68, 75–76, 79–80, 81–82, 85–86, 87–88, 91–92, 95–96

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
K.CN.3 Recognize and apply mathematics to objects and pictures	**SE/TE: 33–34, 39–40, 45–46, 177–178, 179–180, 181–182, 183–184, 185–186, 187–188, 189–190, 289–290, 291–292, 293–294, 295–296, 301–302** 11–12, 17–18, 35–36, 51–52, 75–76, 101–102, 103–104, 115–116, 117–118, 137–138, 139–140, 153–154, 157–158, 159–160, 195–196, 197–198, 199–200, 253–254, 255–256, 257–258
Representation Strand	
Students will create and use representations to organize, record, and communicate mathematical ideas.	
K.R.1 Use multiple representations, including verbal language, acting out or modeling a situation, and drawing pictures as representations	**SE/TE: 27–28, 141–142, 147–148, 153–154, 155–156, 157–158, 159–160, 161–162, 163–164, 165–166, 167–168, 169–170, 171–172, 177–178, 179–180, 181–182, 183–184, 185–186, 187–188, 189–190, 195–196, 197–198, 199–200, 201–202, 203–204, 205–206, 207–208, 271–272, 281–282, 283–284** 3–4, 17–18, 33–34, 35–36, 51–52, 53–54, 57–58, 59–60, 75–76, 79–80, 81–82, 85–86, 101–102, 103–104, 105–106, 137–138, 273–274, 289–290, 291–292, 293–294
K.R.2 Use standard and nonstandard representations	**SE/TE: 183–184, 185–186, 187–188, 189–190, 259–260** 41–42, 159–160, 165–166, 169–170, 289–290, 291–292, 293–294, 295–296, 301–302
Students will use representations to model and interpret physical, social, and mathematical phenomena.	
K.R.3 Use objects to show and understand physical phenomena (e.g., guess the number of cookies in a package)	**SE/TE: 153–154, 155–156, 157–158, 159–160, 161–162, 163–164, 165–166, 167–168, 169–170, 171–172** 51–52, 53–54, 55–56, 57–58, 59–60, 63–64, 65–66, 67–68, 75–76, 79–80, 81–82, 85–86, 87–88, 91–92, 95–96, 119–120, 123–124, 281–282, 283–284
K.R.4 Use objects to show and understand social phenomena (e.g., count and represent sharing cookies between friends)	**SE/TE: 141–142** 177–178, 179–180, 181–182, 183–184, 185–186, 187–188, 189–190, 195–196, 197–198, 199–200, 201–202, 203–204, 205–206, 207–208
K.R.5 Use objects to show and understand mathematical phenomena (e.g., draw pictures to show a story problem, show number value using fingers on your hand)	**SE/TE: 147–148, 177–178, 179–180, 181–182, 183–184, 185–186, 187–188, 189–190, 259–260** 33–34, 35–36, 37–38, 51–52, 53–54, 55–56, 57–58, 75–76, 79–80, 81–82, 101–102, 103–104, 105–106, 119–120, 195–196, 197–198, 199–200, 201–202, 289–290, 291–292
Number Sense and Operations Strand	
Students will understand numbers, multiple ways of representing numbers, relationships among numbers, and number systems.	
K.N.1 Count the items in a collection and know the last counting word tells how many items are in the collection (1 to 10)	**SE/TE: 51–52, 55–56, 59–60, 75–76, 81–82, 87–88, 101–102, 103–104, 105–106, 107–108, 109–110**

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
K.N.2 Count out (produce) a collection of a specified size 1 to 10	**SE/TE: 51–52, 53–54, 55–56, 57–58, 59–60, 63–64, 65–66, 67–68, 75–76, 79–80, 81–82, 85–86, 87–88, 91–92, 95–96, 101–102, 103–104, 105–106, 107–108, 109–110** 177–178, 179–180, 181–182, 183–184, 185–186, 187–188, 189–190
K.N.3 Numerically label a data set of 1 to 5	**SE/TE: 53–54, 57–58, 59–60, 79–80, 85–86, 91–92, 95–96,** 177–178, 179–180, 181–182, 183–184, 185–186, 187–188, 189–190
K.N.4 Verbally count by 1's to 20	**SE/TE: 211C, 211H, 219, 220**
K.N.5 Verbally count backward from 10	**SE/TE: 93**
K.N.6 Represent collections with a finger pattern up to 10	**SE/TE: 88**
K.N.7 Draw pictures or other informal symbols to represent a spoken number up to 10	**SE/TE: 65–66, 67–68** 51–52, 53–54, 55–56, 57–58, 59–60, 75–76, 79–80, 81–82, 85–86, 87–88, 91–92, 147–148
K.N.8 Draw pictures or other informal symbols to represent how many in a collection up to 10	**SE/TE: 51–52, 53–54, 55–56, 57–58, 59–60, 63–64, 65–66, 67–68, 75–76, 79–80, 81–82, 85–86, 87–88, 91–92, 95–96, 289–290, 291–292, 293–294, 295–296, 301–302** 147–148, 177–178, 179–180, 181–182, 183–184, 185–186, 187–188, 189–190
K.N.9 Write numbers 1–10 to represent a collection	**SE/TE: 53–54, 57–58, 79–80, 85–86, 91–92, 101–102, 103–104, 105–106, 107–108, 109– 110** 177–178, 179–180, 181–182, 183–184, 185–186, 187–188, 189–190
K.N.10 Visually determine how many more or less, and then using the verbal counting sequence, match and count 1–10	**SE/TE: 63–64, 65–66, 67–68, 101–102, 103–104, 105–106, 107–108, 109–110, 289–290, 301–302** 293–294, 295–296
K.N.11 Use and understand verbal ordinal terms, first to tenth	**SE/TE: 143–144, 145–146, 147–148**
Students will understand meanings of operations and procedures, and how they relate to one another.	
K.N.12 Solve and create addition and subtraction verbal word problems (use counting-based strategies, such as counting on and to ten)	**SE/TE: 177–178, 179–180, 181–182, 183–184, 185–186, 187–188, 189–190**
K.N.13 Determine sums and differences by various means	**SE/TE: 177–178, 179–180, 181–182, 183–184, 185–186, 187–188, 189–190, 195–196, 197–198, 201–202, 203–204, 205–206, 207–208**
Algebra Strand	
Students will recognize, use, and represent algebraically patterns, relations, and functions.	
K.A.1 Use a variety of manipulatives to create patterns using attributes of color, size, or shape	**SE/TE: 33–34, 35–36, 37–38, 41–42, 43–44, 45–46**
K.A.2 Recognize, describe, extend, and create patterns that repeat (e.g., ABABAB or ABAABAAAB)	**SE/TE: 33–34, 35–36, 37–38, 39–40, 41–42, 43–44, 45–46**
Geometry Strand	
Students will use visualization and spatial reasoning to analyze characteristics and properties of geometric shapes.	
K.G.1 Describe characteristics and relationships of geometric objects	**SE/TE: 3–4, 5–6, 7–8, 9–10, 11–12, 115–116, 117–118, 119–120, 123–124, 125–126, 127–128, 129–130, 137–138, 139–140, 153–154**

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
Students will identify and justify geometric relationships, formally and informally.	
K.G.2 Sort groups of objects by size and size order (increasing and decreasing)	**SE/TE: 153–154, 157–158, 163–164**
Students will apply transformations and symmetry to analyze problem-solving situations.	
K.G.3 Explore vertical and horizontal orientation of objects	**SE/TE: 37–38, 43–44,** 21–22
K.G.4 Manipulate two- and three-dimensional shapes to explore symmetry	**SE/TE: 123–124, 137–138, 139–140**
Students will apply coordinate geometry to analyze problem-solving situations.	
K.G.5 Understand and use ideas such as over, under, above, below, on, beside, next to, and between	**SE/TE: 17–18, 19–20, 21–22, 23–24, 25–26, 27–28, 143–144, 145–146**
Measurement Strand	
Students will determine what can be measured and how, using appropriate methods and formulas.	
K.M.1 Name, discuss, and compare attributes of length (longer than, shorter than)	**SE/TE: 155–156, 157–158, 159–160, 161–162, 171–172**
K.M.2 Compare the length of two objects by representing each length with string or a paper strip	**SE/TE: 159–160, 161–162, 171–172**
K.M.3 Relate specific times such as morning, noon, afternoon, and evening to activities and absence or presence of daylight	**SE/TE: 263–264, 265–266**
Statistics and Probability Strand	
Students will collect, organize, display, and analyze data.	
K.S.1 Gather data in response to questions posed by the teacher and students	**SE/TE: 95–96, 291–292**
K.S.2 Help to make simple pictographs for quantities up to 10, where one picture represents 1	**SE/TE: 95–96, 295–296**
K.S.3 Sort and organize objects by two attributes (e.g., color, size, or shape)	**SE/TE: 5–6, 7–8, 9–10, 11–12**
K.S.4 Represent data using manipulatives	**SE/TE: 293–294, 301–302**
K.S.5 Identify more, less, and same amounts from pictographs or concrete models	**SE/TE: 95–96, 199–200, 289–290**

Scott Foresman-Addison Wesley enVisionMATH
to the
New York State Mathematics
Core Curriculum Learning Standards
Grade 1

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
Problem Solving Strand	
Students will build new mathematical knowledge through problem solving.	
1.PS.1 Explore, examine, and make observations about a social problem or mathematical situation	**SE/TE: 75–78, 135–138, 163–166, 187–190, 223–226, 243–246, 247–250, 251–254, 255–258, 359–362, 395–398, 399–402, 403–406, 407–410, 411–414, 415–418, 419–422, 431–434, 473–476, 493–496, 509–512, 525–528, 561–564, 565–568, 569–572, 573–576, 577–580, 593–596** 7–10, 31–34, 35–38, 99–102, 111–114, 179–182, 183–186, 227–230, 387–390, 443–446, 453–456, 457–460, 521–524, 529–532, 541–544, 545–548, 549–552, 585–588, 589–592, 637–640
1.PS.2 Interpret information correctly, identify the problem, and generate possible solutions	**SE/TE: 75–78, 135–138, 163–166, 187–190, 255–258, 295–298, 323–326, 359–362, 473–476, 493–496, 509–512, 517–520, 521–524, 533–536, 569–572, 573–576, 577–580, 637–640** 7–10, 11–14, 99–102, 111–114, 147–150, 151–154, 175–178, 199–202, 203–206, 211–214, 215–218, 219–222, 223–226, 227–230, 231–234, 235–238, 387–390, 469–472, 525–528, 529–532, 541–544, 545–548, 549–552, 561–564, 565–568, 585–588, 589–592, 593–596, 597–600, 601–604
Students will solve problems that arise in mathematics and in other contexts.	
1.PS.3 Act out or model with manipulatives activities involving mathematical content from literature and/or story telling	**SE/TE: 81G, 479G**
1.PS.4 Formulate problems and solutions from everyday situations (e.g., counting the number of children in the class or using the calendar to teach counting)	**SE/TE: 469–472** 83–86, 95–98, 99–102, 295–298, 453–456, 457–460, 601–604
Students will apply and adapt a variety of appropriate strategies to solve problems.	
1.PS.5 Use informal counting strategies to find solutions	**SE/TE: 11–14, 15–18, 39–42, 303–306, 307–310, 311–314, 323–326, 509–512, 541–544, 545–548, 549–552, 557–560** 3–6, 7–10, 19–22, 23–26, 31–34, 35–38, 51–54, 55–58, 59–62, 75–78, 135–138, 155–158, 497–500, 501–504, 561–564, 565–568, 569–572
1.PS.6 Experience teacher-directed questioning process to understand problems.	**SE/TE: 83, 307, 497** 219–222, 295–298, 473–476, 517–520, 521–524, 525–528, 529–532, 533–536, 585–588, 589–592, 593–596, 597–600, 601–604, 637–640

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
1.PS.7 Compare and discuss ideas for solving a problem with teacher and/or students to justify their thinking	**SE/TE: 283–286, 629–632** 83–86, 87–90, 95–98, 99–102, 103–106, 295–298, 585–588, 589–592, 593–596, 597–600, 637–640
1.PS.8 Use manipulatives (e.g., tiles, blocks) to model the action in problems	**SE/TE: 43–46, 75–78, 111–114, 399–402, 403–406, 407–410, 411–414, 561–564, 621–624, 633–636, 637–640** 31–34, 35–38, 103–106, 203–206, 211–214, 219–222, 223–226, 231–234, 263–266, 267–270, 525–528, 529–532, 585–588
1.PS.9 Use drawings/pictures to model the action in problems	**SE/TE: 3–6, 7–10, 31–34, 51–54, 55–58, 59–62, 75–78, 99–102, 163–166, 187–190, 207–210, 215–218, 303–306, 307–310, 311–314, 315–318, 319–322, 367–370, 371–374, 375–378, 379–382, 383–386, 533–536, 585–588, 589–592, 593–596, 597–600** 11–14, 15–18, 19–22, 35–38, 43–46, 143–146, 147–150, 211–214, 215–218, 219–222, 227–230, 231–234, 235–238, 387–390, 453–456, 457–460, 525–528, 529–532, 609–612, 613–616, 617–620, 625–628, 629–632
Students will monitor and reflect on the process of mathematical problem solving.	
1.PS.10 Explain to others how a problem was solved, giving strategies and justifications	**SE/TE: 375–378, 415–418, 589–592** 75–78, 83–86, 87–90, 91–94, 199–202, 203–206, 219–222, 255–258, 295–298, 323–326, 387–390, 395–398, 403–406, 549–552, 585–588, 589–592, 593–596, 621–624, 633–636, 637–640
Reasoning and Proof Strand	
Students will recognize reasoning and proof as fundamental aspects of mathematics.	
1.RP.1 Understand that mathematical statements can be true or false	**SE/TE: 315–318, 379–382, 439–442** 195–198, 219–222, 231–234, 235–238, 521–524, 529–532, 585–588, 593–596, 597–600
1.RP.2 Recognize that mathematical ideas need to be supported by evidence	**SE/TE: 235–238** 179–182, 195–198, 199–202, 203–206, 215–218, 219–222, 223–226, 227–230, 231–234, 473–476, 521–524, 525–528, 529–532, 585–588, 589–592, 593–596, 597–600
Students will make and investigate mathematical conjectures.	
1.RP.3 Investigate the use of knowledgeable guessing as a mathematical tool	**SE/TE: 247–250, 251–254, 255–258, 387–390** 601–604
1.RP.4 Explore guesses, using a variety of objects and manipulatives	**SE/TE: 387–390** 203–206, 207–210, 223–226, 247–250, 251–254, 255–258
Students will develop and evaluate mathematical arguments and proofs.	
1.RP.5 Justify general claims, using manipulatives	**SE/TE: 621–624, 633–636, 637–640** 3–6, 7–10, 11–14, 31–34, 35–38, 43–46, 203–206, 223–226, 231–234
1.RP.6 Develop and explain an argument verbally or with objects	**SE/TE: 235–238** 31–34, 35–38, 43–46, 175–178, 179–182, 195–198, 215–218, 227–230, 231–234, 521–524, 525–528, 529–532, 541–544, 545–548, 549–552, 557–560

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
1.RP.7 Listen to and discuss claims other students make	**SE/TE: 62B, 126B, 488B** 83–86, 87–90, 91–94, 95–98, 99–102, 103–106, 111–114, 175–178, 179–182, 231–234, 469–472, 517–520, 521–524, 525–528, 529–532, 637–640
Students will select and use various types of reasoning and methods of proof.	
1.RP.8 Use trial and error strategies to verify claims	**SE/TE: 387–390** 359–362
Communication Strand	
Students will organize and consolidate their mathematical thinking through communication.	
1.CM.1 Understand how to organize their thought processes with teacher guidance	**SE/TE: 135–138** 51–54, 83–86, 119–122, 143–146, 171–174, 199–202, 243–246, 263–266, 267–270, 303–306, 331–334, 367–370, 395–398, 453–456, 481–484, 485–488, 541–544, 545–548, 609–612, 613–616
1.CM.2 Verbally support their reasoning and answer	**SE/TE: 227–230** 83–86, 87–90, 175–178, 195–198, 199–202, 203–206, 215–218, 263–266, 267–270, 295–298, 453–456, 521–524, 541–544, 545–548, 549–552, 553–556, 585–588, 589–592, 593–596, 637–640
Students will communicate their mathematical thinking coherently and clearly to peers, teachers, and others.	
1.CM.3 Share mathematical ideas through the manipulation of objects, drawings, pictures, charts, and symbols in both written and verbal explanations	**SE/TE: 23–26, 35–38, 135–138, 203–206, 207–210, 211–214, 219–222, 223–226, 303–306, 307–310, 311–314, 509–512, 533–536, 585–588, 597–600** 3–6, 31–34, 75–78, 83–86, 87–90, 143–146, 171–174, 195–198, 199–202, 243–246, 263–266, 323–326, 331–334, 335–338, 367–370, 395–398, 469–472, 517–520, 561–564, 589–592, 637–640
Students will analyze and evaluate the mathematical thinking and strategies of others.	
1.CM.4 Listen to solutions shared by other students	**SE/TE: 119, 179, 593** 31–34, 35–38, 43–46, 83–86, 87–90, 91–94, 95–98, 99–102, 103–106, 295–298, 469–472, 517–520, 529–532, 561–564, 565–568, 569–572, 573–576, 577–580, 585–588, 589–592, 593–596, 597–600, 637–640
1.CM.5 Formulate mathematically relevant questions	**SE/TE: 601–604** 541–544, 545–548, 565–568, 569–572
Students will use the language of mathematics to express mathematical ideas precisely.	
1.CM.6 Use appropriate mathematical terms, vocabulary, and language	**SE/TE: 31–34, 35–38, 43–46, 63–66, 143–146, 147–150, 151–154, 171–174, 175–178, 195–198, 199–202, 211–214, 227–230, 231–234, 235–238, 287–290, 331–334, 335–338, 339–342, 351–354, 355–358, 395–398, 443–446, 453–456, 457–460, 469–472, 481–484, 485–488, 489–492, 525–528, 573–576, 577–580, 585–588** 3–6, 7–10, 11–14, 23–26, 39–42, 163–166, 179–182, 183–186, 187–190, 505–508, 517–

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
continued	520, 521–524, 529–532, 533–536, 589–592, 593–596, 597–600, 601–604
Connections Strand	
Students will recognize and use connections among mathematical ideas.	
1.CN.1 Recognize the connections of patterns in their everyday experiences to mathematical ideas	**SE/TE: 295–298, 323–326, 469–472** 243–246, 247–250, 251–254, 255–258, 279–282, 283–286, 291–294, 367–370, 371–374, 375–378, 379–382, 383–386, 473–476
1.CN.2 Understand the connections between numbers and the quantities they represent	**SE/TE: 3–6, 7–10, 15–18, 19–22, 23–26, 51–54, 55–58, 59–62, 75–78, 119–122, 123–126, 127–130, 131–134, 143–146, 147–150, 151–154, 155–158, 163–166, 187–190, 263–266, 267–270, 271–274, 279–282, 283–286, 517–520, 521–524** 1 1–14, 31–34, 35–38, 43–46, 63–66, 67–70, 71–74, 171–174, 175–178, 179–182, 481–484, 485–488, 489–492, 497–500, 501–504, 525–528, 529–532, 533–536, 541–544, 545–548, 549–552, 557–560, 601–604
1.CN.3 Compare the similarities and differences of mathematical ideas	**SE/TE: 107–110, 199–202, 215–218, 231–234, 235–238** 75–78, 203–206, 211–214, 223–226, 227–230, 453–456, 457–460, 517–520
Students will understand how mathematical ideas interconnect and build on one another to produce a coherent whole.	
1.CN.4 Understand how models of situations involving objects, pictures, and symbols relate to mathematical ideas	**SE/TE: 11–14, 51–54, 55–58, 59–62, 63–66, 67–70, 75–78, 83–86, 87–90, 91–94, 95–98, 99–102, 103–106, 111–114, 127–130, 131–134, 155–158, 163–166, 179–182, 183–186, 187–190, 473–476, 497–500, 501–504, 525–528, 529–532, 541–544, 545–548, 549–552, 553–556, 557–560, 561–564, 565–568, 569–572, 573–576, 577–580, 585–588, 589–592, 593–596** 3–6, 31–34, 159–162, 195–198, 203–206, 243–246, 247–250, 263–266, 367–370, 371–374, 375–378, 453–456, 493–496, 521–524, 597–600, 609–612, 613–616, 617–620, 621–624, 625–628
1.CN.5 Understand meanings of operations and how they relate to one another	**SE/TE: 107–110, 175–178, 179–182, 183–186, 517–520, 525–528, 529–532** 521–524, 533–536
1.CN.6 Understand how mathematical models represent quantitative relationships	**SE/TE: 15–18, 19–22, 23–26, 35–38, 43–46, 75–78, 83–86, 87–90, 91–94, 95–98, 99–102, 103–106, 119–122, 123–126, 263–266, 267–270, 271–274, 303–306, 307–310, 311–314, 315–318, 497–500, 501–504** 3–6, 7–10, 11–14, 31–34, 71–74, 111–114, 319–322, 517–520, 521–524, 525–528, 529–532, 533–536

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
Students will recognize and apply mathematics in contexts outside of mathematics.	
1.CN.7 Recognize the presence of mathematics in their daily lives	**SE/TE: 219–222, 367–370, 371–374, 375–378, 379–382, 383–386, 443–446, 453–456, 457–460, 469–472, 473–476** 3–6, 7–10, 11–14, 15–18, 19–22, 227–230, 231–234, 287–290, 387–390, 395–398, 399–402, 403–406, 419–422, 431–434, 601–604, 637–640
1.CN.8 Recognize and apply mathematics to solve problems	**SE/TE: 75–78, 111–114, 135–138, 163–166, 187–190, 295–298, 493–496, 509–512, 521–524** 7–10, 11–14, 15–18, 31–34, 35–38, 39–42, 143–146, 147–150, 151–154, 171–174, 175–178, 179–182, 231–234, 525–528, 529–532, 585–588, 589–592, 593–596, 597–600, 637–640
1.CN.9 Recognize and apply mathematics to objects, pictures, and symbols	**SE/TE: 51–54, 55–58, 59–62, 63–66, 67–70, 71–74, 75–78, 83–86, 87–90, 91–94, 95–98, 99–102, 103–106, 127–130, 131–134, 143–146, 147–150, 151–154, 155–158, 171–174, 179–182, 203–206, 207–210, 211–214, 243–246, 247–250, 251–254, 255–258, 497–500, 501–504, 533–536, 585–588, 589–592, 593–596, 597–600** 3–6, 7–10, 31–34, 35–38, 107–110, 159–162, 175–178, 195–198, 215–218, 219–222, 279–282, 283–286, 303–306, 307–310, 311–314, 359–362, 517–520, 601–604, 609–612, 613–616, 637–640
Representation Strand	
Students will create and use representations to organize, record, and communicate mathematical ideas.	
1.R.1 Use multiple representations including verbal and written language, acting out or modeling a situation, drawings, and/ or symbols as representations	**SE/TE: 3–6, 31–34, 35–38, 39–42, 43–46, 63–66, 67–70, 71–74, 75–78, 83–86, 87–90, 91–94, 95–98, 99–102, 103–106, 107–110, 111–114, 119–122, 123–126, 143–146, 147–150, 155–158, 163–166, 187–190, 263–266, 267–270, 271–274, 303–306, 307–310, 311–314, 315–318, 367–370, 371–374, 375–378, 379–382, 383–386, 497–500, 501–504, 525–528, 529–532, 533–536, 561–564, 565–568, 569–572, 589–592, 593–596, 597–600, 601–604, 609–612, 613–616, 617–620, 621–624, 625–628, 629–632, 633–636, 637–640** 7–10, 11–14, 15–18, 19–22, 151–154, 159–162, 171–174, 453–456, 457–460, 481–484, 485–488, 489–492, 517–520, 521–524, 541–544, 545–548, 549–552, 557–560, 585–588
1.R.2 Share mental images of mathematical ideas and understandings	**SE/TE: 153, 489** 263–266, 267–270, 387–390
1.R.3 Use standard and nonstandard representations	**SE/TE: 399–402, 406** 163–166, 187–190, 517–520, 521–524, 525–528, 529–532, 533–536, 553–556, 585–588, 589–592, 593–596, 597–600, 601–604

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
Students will select, apply, and translate among mathematical representations to solve problems.	
1.R.4 Connect mathematical representations with problem solving	**SE/TE: 63–66, 67–70, 135–138, 163–166, 187–190, 223–226, 493–496, 509–512, 569–572, 585–588, 637–640** 3–6, 7–10, 11–14, 15–18, 19–22, 23–26, 147–150, 151–154, 199–202, 207–210, 211–214, 255–258, 517–520, 521–524, 525–528, 529–532, 533–536, 565–568, 589–592, 593–596, 597–600, 601–604
Students will use representations to model and interpret physical, social, and mathematical phenomena.	
1.R.5 Use mathematics to show and understand physical phenomena (e.g., estimate and represent the number of apples in a tree)	**SE/TE: 270, 275, 290** 3–6, 7–10, 11–14, 15–18, 19–22, 235–238, 395–398, 399–402, 403–406, 453–456, 457–460, 525–528, 529–532, 533–536, 601–604
1.R.6 Use mathematics to show and understand social phenomena (e.g., count and represent sharing cookies between friends)	**SE/TE: 589–592** 135–138, 287–290, 509–512, 585–588, 601–604
1.R.7 Use mathematics to show and understand mathematical phenomena (e.g., draw pictures to show a story problem, show number value using fingers on your hand)	**SE/TE: 163–166, 187–190, 533–536, 597–600** 31–34, 35–38, 43–46, 75–78, 223–226, 303–306, 307–310, 311–314, 315–318, 585–588, 589–592, 593–596, 601–604
Number Sense and Operations Strand	
Students will understand numbers, multiple ways of representing numbers, relationships among numbers, and number systems.	
1.N.1 Count the items in a collection and know the last counting word tells how many items are in the collection (1 to 100)	**SE/TE: 3–6, 7–10, 11–14, 23–26** 15–18, 19–22, 31–34, 35–38, 119–122, 123–126, 279–282, 283–286, 303–306, 307–310, 311–314
1.N.2 Count out (produce) a collection of a specified size (10 to 100 items), using groups of ten	**SE/TE: 263–266, 267–270, 271–274, 303–306, 307–310, 311–314** 315–318, 319–322
1.N.3 Quickly see and label with a number, collections of 1 to 10	**SE/TE: 3–6, 11–14, 15–18, 19–22** 7–10, 119–122, 123–126, 155–158
1.N.4 Count by 1's to 100	**SE/TE: 275, 367, 371** 3–6, 7–10, 11–14, 23–26, 39–42
1.N.5 Skip count by 10's to 100	**SE/TE: 271–274, 275–278, 279–282, 291–294, 295–298, 303–306, 307–310, 311–314** 315–318
1.N.6 Skip count by 5's to 50	**SE/TE: 275–278, 279–282, 291–294, 295–298**
1.N.7 Skip count by 2's to 20	**SE/TE: 275–278, 279–282, 283–286, 291–294, 295–298**
1.N.8 Verbally count from a number other than one by 1's	**SE/TE: 271–274, 275–278, 279–282, 291–294** 7–10, 11–14, 343–346, 347–350
1.N.9 Count backward from 20 by 1's	**TE: 268**
1.N.10 Draw pictures or other informal symbols to represent a spoken number up to 20	**SE/TE: 7–10** 3–6, 11–14, 15–18, 19–22, 31–34, 35–38, 263–266
1.N.11 Identify that spacing of the same number of objects does not affect the quantity (conservation)	**SE/TE: 15, 19, 246** 3–6, 7–10, 11–14, 15–18, 19–22
1.N.12 Arrange objects in size order (increasing and decreasing)	**SE/TE: 395–398, 419–422, 431–434**

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
1.N.13 Write numbers to 100	**SE/TE: 263–266, 267–270, 271–274, 275–278, 279–282** 3–6, 7–10, 11–14, 19–22, 23–26, 351–354, 355–358, 517–520, 521–524, 525–528, 529–532, 533–536
1.N.14 Read the number words one, two, three…ten	**SE/TE: 3–6, 7–10**
1.N.15 Explore and use place value	**SE/TE: 311–314, 315–318, 319–322** 11–14, 303–306, 307–310
1.N.16 Compare and order whole numbers up to 100	**SE/TE: 31–34, 35–38, 39–42, 43–46, 339–342, 343–346, 347–350, 351–354, 355–358, 359–362** 331–334, 335–338
1.N.17 Develop an initial understanding of the base ten system: 10 ones = 1 ten; 10 tens = 1 hundred	**SE/TE: 11–14, 263–266, 271–274, 303–306, 307–310, 311–314, 315–318, 319–322, 323–326, 497–500, 501–504, 609–612, 617–620, 621–624, 629–632, 633–636**
1.N.18 Use a variety of strategies to compose and decompose one digit numbers	**SE/TE: 19–22, 83–86, 87–90, 91–94, 123–126, 127–130, 131–134, 135–138, 179–182, 183–186, 517–520, 521–524** 51–54, 55–58, 59–62, 71–74, 107–110, 119–122, 525–528, 529–532
1.N.19 Understand the commutative property of addition	**SE/TE: 71–74** 75–78, 521–524
1.N.20 Name the number before and the number after a given number, and name the number(s) between two given numbers up to 100 (with and without the use of a number line or a hundreds chart)	**SE/TE: 39–42, 331–334, 335–338, 343–346, 347–350, 351–354, 355–358, 359–362**
1.N.21 Use before, after, or between to order numbers to 100 (with or without the use of a number line)	**SE/TE: 39–42, 347–350, 351–354, 355–358** 35–38, 43–46
1.N.22 Use the words higher, lower, greater, and less to compare two numbers	**SE/TE: 31–34, 339–342** 355–358
1.N.23 Use and understand verbal ordinal terms, first to twentieth	**SE/TE: 287–290, 359–362**
Students will understand meanings of operations and procedures, and how they relate to one another.	
1.N.24 Develop and use strategies to solve addition and subtraction word problems	**SE/TE: 67–70, 75–78, 83–86, 87–90, 91–94, 95–98, 99–102, 103–106, 111–114, 163–166, 187–190, 387–390, 493–496, 637–640** 7–10, 11–14, 19–22, 71–74, 143–146, 147–150, 151–154, 155–158, 159–162, 171–174, 481–484, 485–488, 489–492, 505–508
1.N.25 Represent addition and subtraction word problems and their solutions as number sentences	**SE/TE: 67–70, 95–98, 99–102, 103–106, 111–114, 163–166, 187–190, 387–390, 493–496, 525–528, 637–640** 63–66, 71–74, 143–146, 147–150, 151–154, 155–158, 159–162, 171–174, 175–178, 179–182, 183–186
1.N.26 Create problem situations that represent a given number sentence	**SE/TE: 111–114** 63–66, 67–70, 95–98, 99–102, 155–158, 175–178

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
1.N.27 Use a variety of strategies to solve addition and subtraction problems with one- and two-digit numbers without regrouping	**SE/TE: 63–66, 67–70, 71–74, 143–146, 147–150, 151–154, 155–158, 159–162, 163–166, 171–174, 175–178, 179–182, 183–186, 187–190, 319–322, 481–484, 485–488, 489–492, 497–500, 501–504, 505–508, 517–520, 521–524, 529–532, 609–612, 613–616, 617–620, 621–624, 625–628, 629–632, 633–636, 637–640** 75–78, 525–528, 533–536
1.N.28 Demonstrate fluency and apply addition and subtraction facts to and including 10	**SE/TE: 63–66, 67–70, 71–74, 99–102, 103–106, 107–110, 143–146, 147–150, 151–154, 155–158, 159–162, 171–174, 175–178, 179–182, 481–484, 485–488, 489–492, 497–500, 501–504, 505–508, 517–520, 521–524, 529–532** 183–186, 525–528, 533–536
1.N.29 Understand that different parts can be added to get the same whole	**SE/TE: 19–22, 51–54, 55–58, 59–62, 71–74, 75–78, 127–130, 131–134, 135–138, 155–158, 159–162, 319–322, 323–326** 521–524
Students will compute accurately and make reasonable estimates.	
1.N.30 Estimate the number in a collection to 50 and then compare by counting the actual items in the collection	**TE: 276**
Algebra Strand	
Students will recognize, use, and represent algebraically patterns, relations, and functions.	
1.A.1 Determine and discuss patterns in arithmetic (what comes next in a repeating pattern, using numbers or objects)	**SE/TE: 15–18, 127–130, 131–134, 223–226, 243–246, 247–250, 251–254, 255–258, 275–278, 279–282, 283–286, 291–294, 295–298, 307–310, 323–326, 343–346, 509–512, 609–612, 613–616, 617–620, 621–624, 625–628, 629–632, 633–636** 7–10, 11–14, 19–22, 119–122, 123–126, 135–138, 203–206
Geometry Strand	
Students will use visualization and spatial reasoning to analyze characteristics and properties of geometric shapes.	
1.G.1 Match shapes and parts of shapes to justify congruency	**SE/TE: 215–218**
1.G.2 Recognize, name, describe, create, sort, and compare two dimensional and three-dimensional shapes	**SE/TE: 195–198, 199–202, 203–206, 207–210, 211–214, 215–218, 219–222, 223–226, 227–230, 231–234, 235–238** 415–418
Students will apply transformations and symmetry to analyze problem-solving situations.	
1.G.3 Experiment with slides, flips, and turns of two-dimensional shapes	**SE/TE: 211–214**
1.G.4 Identify symmetry in two-dimensional shapes	**SE/TE: 219–222**
Students will apply coordinate geometry to analyze problem-solving situations.	
1.G.5 Recognize geometric shapes and structures in the environment	**SE/TE: 227–230** 195–198, 231–234

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
Measurement Strand	
Students will determine what can be measured and how, using appropriate methods and formulas.	
1.M.1 Recognize length as an attribute that can be measured	**SE/TE: 395–398, 399–402, 403–406, 407–410, 411–414, 415–418**
1.M.2 Use non-standard units (including finger lengths, paper clips, students' feet and paces) to measure both vertical and horizontal lengths	**SE/TE: 399–402, 403–406**
1.M.3 Informally explore the standard unit of measure, inch	**SE/TE: 407–410** 415–418
Students will use units to give meaning to measurements.	
1.M.4 Know vocabulary and recognize coins (penny, nickel, dime, quarter)	**SE/TE: 367–370, 371–374, 375–378, 379–382, 383–386**
1.M.5 Recognize the cent notation as ¢	**SE/TE: 367–370, 371–374, 375–378, 379–382, 383–386, 387–390**
1.M.6 Use different combinations of coins to make money amounts up to 25 cents	**SE/TE: 367–370, 371–374, 375–378, 379–382, 383–386**
1.M.7 Recognize specific times (morning, noon, afternoon, evening)	**TE: 474**
1.M.8 Tell time to the hour, using both digital and analog clocks	**SE/TE: 453–456, 457–460**
1.M.9 Know the days of the week and months of the year in sequence	**SE/TE: 469–472**
1.M.10 Classify months and connect to seasons and other events	**SE/TE: 469–472**
Students will develop strategies for estimating measurements.	
1.M.11 Select and use non-standard units to estimate measurements	**SE/TE: 399–402, 403–406, 419–422, 431–434**
Statistics and Probability Strand	
Students will collect, organize, display, and analyze data.	
1.S.1 Pose questions about themselves and their surroundings	**SE/TE: 468, 472** 569–572, 601–604
1.S.2 Collect and record data related to a question	**SE/TE: 509–512, 557–560, 561–564, 565–568, 569–572, 601–604** 135–138, 223–226, 323–326
1.S.3 Display data in simple pictographs for quantities up to 20 with units of one	**SE/TE: 565–568, 569–572**
1.S.4 Display data in bar graphs using concrete objects with intervals of one	**SE/TE: 549–552, 569–572** 601–604
1.S.5 Use Venn diagrams to sort and describe data	**TE: 236**
1.S.6 Interpret data in terms of the words: most, least, greater than, less than, or equal to	**SE/TE: 549–552** 541–544, 545–548, 557–560
1.S.7 Answer simple questions related to data displayed in pictographs (e.g., category with most, how many more in a category compared to another, how many all together in two categories)	**SE/TE: 545–548, 565–568, 569–572**
Students will make predictions that are based upon data analysis.	
1.S.8 Discuss conclusions and make predictions in terms of the words likely and unlikely	**SE/TE: 577–580, 601–604**
1.S.9 Construct a question that can be answered by using information from a graph	**SE/TE: 601–604** 541–544, 545–548

Scott Foresman-Addison Wesley enVisionMATH
to the
New York State Mathematics
Core Curriculum Learning Standards
Grade 2

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
Problem Solving Strand	
Students will build new mathematical knowledge through problem solving.	
2.PS.1 Explore, examine, and make observations about a social problem or mathematical situation	**SE/TE: 287–290, 299–302, 379–382, 383–386, 499–502** 127–130, 131–134, 135–138, 163–166, 283–286, 295–298, 307–310, 407–410, 415–418, 431–434, 443–446, 459–462, 479–482, 483–486, 487–490, 495–498, 511–514, 559–562, 575–578, 619–622
2.PS.2 Interpret information correctly, identify the problem, and generate possible solutions	**SE/TE: 211–214, 243–246, 275–278, 307–310, 343–346, 471–474** 3–6, 7–10, 35–38, 71–74, 99–102, 103–106, 163–166, 171–174, 195–198, 219–222, 251–254, 255–258, 283–286, 407–410, 479–482, 511–514, 551–554, 555–558, 563–566, 619–622
Students will solve problems that arise in mathematics and in other contexts.	
2.PS.3 Act out or model with manipulatives activities involving mathematical content from literature and/or story telling	**SE/TE: 141G, 193G, 249G**
2.PS.4 Formulate problems and solutions from everyday situations (e.g., counting the number of children in the class, using the calendar to teach counting)	**SE/TE: 459–462** 451–454, 467–470, 479–482, 483–486
Students will apply and adapt a variety of appropriate strategies to solve problems.	
2.PS.5 Use informal counting strategies to find solutions	**SE/TE: 38, 178** 99–102, 127–130, 143–146, 147–150, 151–154, 155–158, 159–162, 163–166, 171–174, 187–190, 195–198, 511–514, 515–518, 523–526, 527–530
2.PS.6 Experience teacher-directed questioning process to understand problems	**SE/TE: 479–482**
2.PS.7 Compare and discuss ideas for solving a problem with teacher and/or students to justify their thinking	**SE/TE: 343–346, 359–362** 479–482
2.PS.8 Use manipulatives (e.g., tiles, blocks) to model the action in problems	**SE/TE: 251–254, 255–258, 371–374, 403–406, 407–410, 619–622** 27–30, 55–58, 59–62, 71–74, 75–78, 79–82, 131–134, 151–154, 155–158, 163–166, 195–198, 199–202, 207–210, 219–222, 223–226, 231–234, 263–266, 511–514, 515–518, 523–526, 551–554, 559–562, 563–566, 575–578, 579–582

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
2.PS.9 Use drawings/pictures to model the action in problems	**SE/TE: 99–102, 611–614, 627–630** 3–6, 7–10, 35–38, 39–42, 43–46, 71–74, 103–106, 143–146, 147–150, 175–178, 195–198, 199–202, 251–254, 343–346, 371–374, 407–410, 499–502, 511–514, 591–594, 619–622
Students will monitor and reflect on the process of mathematical problem solving.	
2.PS.10 Explain to others how a problem was solved, giving strategies and justifications	**SE/TE: 343–346, 359–362** 163–166, 343–346, 471–474, 479–482, 487–490
Reasoning and Proof Strand	
Students will recognize reasoning and proof as fundamental aspects of mathematics.	
2.RP.1 Understand that mathematical statements can be true or false	**SE/TE: 133, 401, 405** 307–310, 319–322, 339–342, 343–346, 487–490
2.RP.2 Recognize that mathematical ideas need to be supported by evidence	**SE/TE: 131–134, 307–310, 319–322, 339–342, 343–346, 471–474, 479–482, 487–490**
Students will make and investigate mathematical conjectures.	
2.RP.3 Investigate the use of knowledgeable guessing as a mathematical tool	**SE/TE: 307–310** 343–346, 415–418, 419–422
2.RP.4 Explore guesses, using a variety of objects and manipulatives	**SE/TE: 307–310** 343–346, 415–418, 419–422
Students will develop and evaluate mathematical arguments and proofs.	
2.RP.5 Justify general claims, using manipulatives	**SE/TE: 383–386, 387, 419–422** 131–134, 343–346
2.RP.6 Develop and explain an argument verbally or with objects	**SE/TE: 27–30, 371–374** 131–134, 319–322, 343–346, 479–482
2.RP.7 Listen to and discuss claims other students make	**SE/TE: 126B, 130B**
Students will select and use various types of reasoning and methods of proof.	
2.RP.8 Use trial and error strategies to verify claims	**SE/TE: 307, 310** 123–126, 135–138, 307–310, 343–346
Communication Strand	
Students will organize and consolidate their mathematical thinking through communication.	
2.CM.1 Understand how to organize their thought processes	**SE/TE: 91–94, 163–166, 275–278, 471–474** 3–6, 35–38, 71–74, 99–102, 143–146, 171–174, 195–198, 219–222, 251–254, 283–286, 315–318, 407–410, 415–418, 467–470, 479–482, 511–514, 551–554, 555–558, 591–594, 595–598
2.CM.2 Verbally support their reasoning and answer	**SE/TE: 27–30, 111–114, 219–222, 623–626** 103–106, 107–110, 115–118, 135–138, 283–286, 295–298, 303–306, 315–318, 319–322, 323–326, 327–330, 343–346, 459–462, 471–474, 479–482, 487–490, 491–494, 503–506, 511–514, 515–518

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
Students will communicate their mathematical thinking coherently and clearly to peers, teachers, and others.	
2.CM.3 Share mathematical ideas through the manipulation of objects, drawings, pictures, charts, and symbols in both written and verbal explanations	**SE/TE: 275–278, 331–334, 335–338, 339–342, 371–374, 407–410, 611–614** 3–6, 35–38, 71–74, 99–102, 143–146, 171–174, 195–198, 219–222, 251–254, 319–322, 379–382, 415–418, 419–422, 471–474, 479–482, 511–514, 551–554, 555–558, 591–594, 619–622
Students will analyze and evaluate the mathematical thinking and strategies of others.	
2.CM.4 Listen to solutions shared by other students	**SE/TE: 229–230, 252–253, 330B** 99–102, 103–106, 479–482
2.CM.5 Formulate mathematically relevant questions	**SE/TE: 11–14, 35–38, 255–258** 479–482, 491–494
Students will use the language of mathematics to express mathematical ideas precisely.	
2.CM.6 Use appropriate mathematical terms, vocabulary, and language	**SE/TE: 159–162, 315–318, 319–322, 323–326, 327–330, 331–334, 335–338, 339–342, 343–346, 415–418, 419–422, 423–426, 427–430, 439–442** 3–6, 35–38, 71–74, 111–114, 171–174, 195–198, 219–222, 251–254, 255–258, 283–286, 379–382, 431–434, 451–454, 479–482, 483–486, 511–514, 551–554, 563–566, 591–594, 619–622
Connections Strand	
Students will recognize and use connections among mathematical ideas.	
2.CN.1 Recognize the connections of patterns in their everyday experiences to mathematical ideas	**SE/TE: 635–638** 187–190, 451–454, 455–458, 479–482, 527–530
2.CN.2 Understand and use the connections between numbers and the quantities they represent to solve problems	**SE/TE: 115–118, 355–358, 479–482** 3–6, 7–10, 35–38, 71–74, 111–114, 151–154, 171–174, 195–198, 219–222, 251–254, 283–286, 371–374, 387–390, 467–470, 483–486, 511–514, 551–554, 555–558, 559–562, 591–594, 619–622
2.CN.3 Compare the similarities and differences of mathematical ideas	**SE/TE: 315–318** 55–58, 71–74, 107–110, 127–130, 283–286, 295–298, 303–306, 307–310, 319–322, 323–326, 379–382, 483–486, 487–490, 499–502, 503–506, 511–514, 523–526, 603–606
Students will understand how mathematical ideas interconnect and build on one another to produce a coherent whole.	
2.CN.4 Understand how models of situations involving objects, pictures, and symbols relate to mathematical ideas	**SE/TE: 251–254, 255–258, 263–266, 511–514, 515–518, 523–526, 591–594, 595–598, 599–602, 607–610, 619–622, 627–630, 635–638** 3–6, 35–38, 71–74, 107–110, 143–146, 175–178, 195–198, 219–222, 267–270, 283–286, 315–318, 323–326, 371–374, 379–382, 451–454, 483–486, 487–490, 519–522, 551–554, 559–562, 603–606, 623–626

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
2.CN.5 Understand meanings of operations and how they relate to one another	**SE/TE: 271–274, 591–594, 631–634, 635–638** 23–26, 27–30, 75–78, 79–82, 83–86, 87–90, 207–210, 275–278, 523–526
2.CN.6 Understand how mathematical models represent quantitative relationships	**SE/TE: 251–254, 255–258, 263–266, 511–514, 515–518, 595–598, 607–610** 3–6, 35–38, 39–42, 71–74, 103–106, 175–178, 203–206, 219–222, 371–374, 483–486, 519–522, 551–554, 559–562, 563–566, 591–594, 599–602, 619–622
Students will recognize and apply mathematics in contexts outside of mathematics.	
2.CN.7 Recognize the presence of mathematics in their daily lives**,**	**SE/TE: 423–426, 451–454, 455–458, 459–462, 467–470, 479–482,** 143–146, 147–150, 151–154, 155–158, 159–162, 163–166, 283–286, 287–290, 295–298, 299–302, 307–310, 379–382, 383–386, 387–390, 391–394, 395–398, 415–418, 419–422, 427–430, 431–434, 435–438, 439–442, 443–446, 483–486, 487–490, 499–502, 503–506, 635–638
2.CN.8 Recognize and apply mathematics to solve problems	**SE/TE: 307–310, 471–474, 623–626** 3–6, 35–38, 71–74, 107–110, 143–146, 171–174, 195–198, 219–222, 251–254, 255–258, 283–286, 371–374, 379–382, 415–418, 419–422, 479–482, 511–514, 551–554, 627–630
2.CN.9 Recognize and apply mathematics to objects, pictures, and symbols	**SE/TE: 99–102, 415–418, 419–422, 427–430, 431–434,** 3–6, 35–38, 71–74, 103–106, 175–178, 195–198, 219–222, 251–254, 255–258, 283–286, 319–322, 371–374, 379–382, 423–426, 451–454, 483–486, 511–514, 551–554, 595–598, 619–622
Representation Strand	
Students will create and use representations to organize, record, and communicate mathematical ideas.	
2.R.1 Use multiple representations, including verbal and written language, acting out or modeling a situation, drawings, and/or symbols as representations	**SE/TE: 99–102, 103–106, 107–110, 455–458, 595–598, 599–602, 603–606, 607–610** 3–6, 7–10, 35–38, 39–42, 71–74, 163–166, 175–178, 195–198, 203–206, 219–222, 251–254, 255–258, 319–322, 371–374, 407–410, 415–418, 483–486, 511–514, 551–554, 591–594, 619–622
2.R.2 Share mental images of mathematical ideas and understandings	**SE/TE: 551–554, 567–570** 315–318, 319–322, 503–506, 527–530
2.R.3 Use standard and nonstandard representations	**SE/TE: 383–386, 387–390, 391–394, 395–398, 399–402** 99–102, 103–106, 283–286, 291–294, 295–298, 371–374, 443–446

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
Students will select, apply, and translate among mathematical representations to solve problems.	
2.R.4 Connect mathematical representations with problem solving	**SE/TE: 135–138, 163–166, 275–278, 307–310, 471–474, 599–602, 611–614, 623–626, 627–630** 7–10, 35–38, 39–42, 71–74, 75–78, 111–114, 115–118, 119–122, 171–174, 195–198, 219–222, 223–226, 251–254, 255–258, 283–286, 371–374, 407–410, 483–486, 511–514, 591–594, 595–598
Students will use representations to model and interpret physical, social, and mathematical phenomena.	
2.R.5 Use mathematics to show and understand physical phenomena (e.g., estimate and represent the number of apples in a tree)	**SE/TE: 379–382, 383–386, 387–390, 391–394, 395–398, 399–402, 427–430, 467–470** 135–138, 371–374, 407–410, 415–418, 419–422, 423–426, 431–434, 435–438, 439–442, 443–446
2.R.6 Use mathematics to show and understand social phenomena (e.g., count and represent sharing cookies between friends)	**SE/TE: 255–258, 351–354, 355–358, 359–362, 451–454** 111–114, 307–310, 483–486, 487–490, 551–554, 583–586
2.R.7 Use mathematics to show and understand mathematical phenomena (e.g., draw pictures to show a story problem or show number value using fingers on your hand)	**SE/TE: 63–66, 243–246, 611–614** 3–6, 7–10, 11–14, 35–38, 39–42, 43–46, 71–74, 99–102, 163–166, 171–174, 195–198, 219–222, 251–254, 255–258, 259–262, 287–290, 495–498, 527–530, 555–558, 623–626
Number Sense and Operations Strand	
Students will understand numbers, multiple ways of representing numbers, relationships among numbers, and number systems.	
2.N.1 Skip count to 100 by 2's, 5's, 10's	**SE/TE: 127–130, 143–146, 147–150, 151–154, 155–158, 159–162, 171–174, 187–190, 567–570** 107–110, 163–166, 515–518
2.N.2 Count back from 100 by 1's, 5's, 10's using a number chart	**SE/TE: 127–130, 195–198, 567–570**
2.N.3 Skip count by 3's to 36 for multiplication readiness	**SE/TE: 187–190**
2.N.4 Skip count by 4's to 48 for multiplication readiness	**TE: 592**
2.N.5 Compare and order numbers to 100	**SE/TE: 111–114, 115–118, 119–122, 123–126, 135–138, 287–290, 299–302** 99–102
2.N.6 Develop an understanding of the base ten system: 10 ones = 1 ten; 10 tens = 1 hundred; 10 hundreds = 1 thousand	**SE/TE: 99–102, 103–106, 107–110, 111–114, 115–118, 119–122, 123–126, 135–138, 511–514, 515–518, 519–522, 523–526, 527–530, 551–554, 559–562, 563–566, 575–578, 579–582**
2.N.7 Use a variety of strategies to compose and decompose two digit numbers	**SE/TE: 287–290, 299–302, 555–558, 559–562, 563–566, 575–578, 579–582** 303–306
2.N.8 Understand and use the commutative property of addition number, and name the number(s) between two given numbers	**SE/TE: 47–50, 51–54**

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
2.N.9 Name the number before and the number after a given up to 100 (with and without the use of a number line or a hundreds chart)	**SE/TE: 119–122** 99–102, 127–130
2.N.10 Use and understand verbal ordinal terms	**TE: 124**
2.N.11 Read written ordinal terms (first through ninth) and use them to represent ordinal relations	**TE: 124**
2.N.12 Use zero as the identity element for addition	**TE: 38**
2.N.13 Recognize the meaning of zero in the place value system (0–100)	**SE/TE: 515–518, 519–522, 523–526, 527–530**
2.N.14 Use concrete materials to justify a number as odd or even	**SE/TE: 131–134**
Students will understand meanings of operations and procedures, and how they relate to one another.	
2.N.15 Determine sums and differences of number sentences by various means (e.g., families, related facts, inverse operations, addition doubles, and doubles plus one)	**SE/TE: 3–6, 7–10, 11–14, 15–18, 19–22, 23–26, 27–30, 35–38, 39–42, 43–46, 47–50, 51–54, 55–58, 59–62, 63–66, 71–74, 75–78, 79–82, 83–86, 87–90, 91–94, 171–174, 175–178, 179–182, 183–186, 187–190, 195–198, 199–202, 203–206, 207–210, 211–214, 219–222, 223–226, 227–230, 231–234, 235–238, 239–242, 243–246, 271–274, 283–286, 291–294, 295–298, 303–306, 551–554, 555–558, 559–562, 563–566, 567–570, 575–578, 579–582, 583–586** 251–254, 255–258, 259–262, 263–266, 267–270, 275–278, 571–574
2.N.16 Use a variety of strategies to solve addition and subtraction problems using one- and two-digit numbers with and without regrouping	**SE/TE: 3–6, 7–10, 15–18, 19–22, 23–26, 27–30, 35–38, 39–42, 43–46, 47–50, 51–54, 55–58, 59–62, 63–66, 71–74, 75–78, 79–82, 83–86, 87–90, 91–94, 171–174, 175–178, 179–182, 183–186, 187–190, 195–198, 199–202, 203–206, 207–210, 211–214, 219–222, 223–226, 227–230, 231–234, 235–238, 239–242, 243–246, 251–254, 255–258, 259–262, 263–266, 267–270, 271–274, 275–278, 283–286, 287–290, 291–294, 295–298, 299–302, 303–306, 307–310, 471–474** 11–14, 111–114, 115–118
2.N.17 Demonstrate fluency and apply addition and subtraction facts up to and including 18	**SE/TE: 3–6, 7–10, 11–14, 15–18, 19–22, 23–26, 27–30, 35–38, 39–42, 43–46, 47–50, 51–54, 55–58, 59–62, 63–66, 71–74, 75–78, 79–82, 83–86, 87–90, 91–94, 171–174, 175–178, 179–182, 183–186, 187–190, 195–198, 199–202, 203–206, 207–210, 211–214, 219–222, 223–226, 227–230, 231–234, 235–238, 239–242, 243–246, 283–286, 291–294, 295–298, 303–306, 307–310, 551–554, 555–558, 559–562, 563–566, 575–578, 579–582** 251–254, 255–258, 259–262, 263–266, 267–270, 271–274, 275–278, 287–290, 299–302, 471–474
2.N.18 Use doubling to add 2-digit numbers	**TE: 236**
2.N.19 Use compensation to add 2-digit numbers	**SE/TE: 287–290**

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
2.N.20 Develop readiness for multiplication by using repeated addition	**SE/TE: 591–594**
2.N.21 Develop readiness for division by using repeated subtraction, dividing objects into groups (fair share)	**SE/TE: 619–622, 623–626, 627–630, 631–634, 635–638**
Students will compute accurately and make reasonable estimates.	
2.N.22 Estimate the number in a collection to 100 and then compare by counting the actual items in the collection	**TE: 128**
Algebra Strand	
Students will perform algebraic procedures accurately.	
2.A.1 Use the symbols <, >, = (with and without the use of a number line) to compare whole numbers up to 100	**SE/TE: 111–114, 115–118**
Students will recognize, use, and represent algebraically patterns, relations, and functions.	
2.A.2 Describe and extend increasing or decreasing (+, –) sequences and patterns (numbers or objects up to 100)	**SE/TE: 127–130, 171–174, 187–190** 103–106, 107–110, 195–198, 223–226, 451–454, 455–458
Geometry Strand	
Students will use visualization and spatial reasoning to analyze characteristics and properties of geometric shapes.	
2.G.1 Experiment with slides, flips, and turns to compare two dimensional shapes	**SE/TE: 335–338**
2.G.2 Identify and appropriately name two-dimensional shapes: circle, square, rectangle, and triangle (both regular and irregular)	**SE/TE: 319–322, 323–326, 327–330, 343–346**
2.G.3 Compose (put together) and decompose (break apart) two dimensional shapes	**SE/TE: 323–326, 327–330, 343–346**
Students will identify and justify geometric relationships, formally and informally.	
2.G.4 Group objects by like properties	**SE/TE: 331–334** 339–342
Students will apply transformations and symmetry to analyze problem-solving situations.	
2.G.5 Explore and predict the outcome of slides, flips, and turns of two-dimensional shapes	**SE/TE: 335–338**
2.G.6 Explore line symmetry	**SE/TE: 339–342**
Measurement Strand	
Students will determine what can be measured and how, using appropriate methods and formulas.	
2.M.1 Use non-standard and standard units to measure both vertical and horizontal lengths	**SE/TE: 383–386, 387–390, 391–394, 395–398, 399–402**
2.M.2 Use a ruler to measure standard units (including whole inches and whole feet)	**SE/TE: 391–394**
2.M.3 Compare and order objects according to the attribute of length	**SE/TE: 384, 379–382**
2.M.4 Recognize mass as a qualitative measure (e.g., Which is heavier? Which is lighter?)	**SE/TE: 431–434, 435–438, 439–442, 443–446**
2.M.5 Compare and order objects, using lighter than and heavier than	**SE/TE: 431–434, 435–438, 439–442, 443–446**
Students will use units to give meaning to measurements.	
2.M.6 Know and recognize coins (penny, nickel, dime, quarter) and bills ($1, $5, $10, and $20)	**SE/TE: 143–146, 147–150, 151–154, 155–158, 159–162, 163–166** 287–290

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
2.M.7 Recognize the whole dollar notation as $1, etc.	**SE/TE: 155–158, 159–162**
2.M.8 Identify equivalent combinations to make one dollar	**SE/TE: 155–158, 159–162, 163–166**
2.M.9 Tell time to the half hour and five minutes using both digital and analog clocks	**SE/TE: 451–454, 455–458, 471–474**
Students will develop strategies for estimating measurements.	
2.M.10 Select and use standard (customary) and non-standard units to estimate measurements	**SE/TE: 391–394, 415–418, 419–422, 423–426, 435–438, 443–446, 459–462**
Statistics and Probability Strand	
Students will collect, organize, display, and analyze data.	
2.S.1 Formulate questions about themselves and their surroundings	**SE/TE: 19–22, 119–122, 231–234, 403–406** 479–482, 483–486
2.S.2 Collect and record data (using tallies) related to the question	**SE/TE: 479–482, 483–486**
2.S.3 Display data in pictographs and bar graphs using concrete objects or a representation of the object	**SE/TE: 479–482, 483–486, 487–490, 503–506**
2.S.4 Compare and interpret data in terms of describing quantity (similarity or differences)	**SE/TE: 135–138, 479–482, 483–486, 487–490, 491–494, 503–506, 583–586**
Students will make predictions that are based upon data analysis.	
2.S.5 Discuss conclusions and make predictions from graphs	**SE/TE: 495–498** 479–482, 487–490, 503–506, 583–586

Scott Foresman-Addison Wesley enVisionMATH
to the
New York State Mathematics
Core Curriculum Learning Standards
Grade 3

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
Problem Solving Strand	
Students will build new mathematical knowledge through problem solving.	
3.PS.1 Explore, examine, and make observations about a social problem or mathematical situation	**SE/TE: 58–59, 78–79, 98–100, 306–307, 316–318, 320–321, 328–331, 332–333, 334–337, 338–339, 340–341, 342–343, 350–351, 352–354, 356–357** 4–5, 32–33, 66–67, 86–87, 108–109, 110–112, 114–115, 116–117, 140–141, 206–207, 268–269, 276–277, 278–279, 312–314, 358–359, 374–375, 392–394, 396–397, 436–437, 458–459
3.PS.2 Understand that some ways of representing a problem are more helpful than others	**SE/TE: 4–5, 6–7, 8–9, 10–11, 18–21, 24–25, 72–73, 118–120, 316–318, 384–385, 420–421, 436–437** 36–38, 54–55, 78–79, 98–100, 116–117, 140–141, 142–143, 144–146, 148–149, 164–165, 196–198, 306–307, 360–361, 398–399, 412–413, 414–415, 416–417, 440–443, 448–450, 464–465, 466–467
3.PS.3 Interpret information correctly, identify the problem, and generate possible solutions	**SE/TE: 132–133, 316–318, 384–385, 404–405, 448–450** 58–59, 78–79, 116–117, 118–120, 268–269, 320–321, 374–375, 482–483
Students will solve problems that arise in mathematics and in other contexts.	
3.PS.4 Act out or model with manipulatives activities involving mathematical content from literature	**TE: 258F, 410F**
3.PS.5 Formulate problems and solutions from everyday situations	**SE/TE: 116–117** 58–59, 78–79, 98–100, 118–120, 316–318, 320–321, 374–375, 384–385, 448–450
3.PS.6 Translate from a picture/diagram to a numeric expression	**SE/TE: 4–5, 6–7, 8–9, 10–11, 12–13, 18–21, 98–100, 140–141, 142–143, 144–146, 148–149, 150–151, 152–153, 154–156, 196–198, 316–318, 402–403, 426–428, 440–443** 58–59, 78–79, 118–120, 122–124, 126–127, 128–129, 130–131, 374–375, 384–385, 392–394, 396–397, 404–405
3.PS.7 Represent problem situations in oral, written, concrete, pictorial, and graphical forms continued	**SE/TE: 50–52, 58–59, 78–79, 86–87, 90–91, 98–100, 116–117, 118–120, 122–124, 126–127, 128–129, 130–131, 164–165, 172–173, 174–176, 196–198, 206–207, 208–209, 210–211, 218–221, 224–226, 288–289, 290–293, 298–299, 308–311, 316–318, 384–385, 400–401,**

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
	404–405, 426–428, 440–443, 444–445, 446–447, 448–450, 464–465, 466–467, 482–483 4–5, 6–7, 8–9, 10–11, 48–49, 88–89, 92–94, 108–109, 140–141, 142–143, 144–146, 266–267, 276–277, 278–279, 320–321, 360–361, 374–375, 392–394, 422–424, 436–437
3.PS.8 Select an appropriate representation of a problem	**SE/TE: 316–318, 342–343, 384–385, 392–394, 396–397** 4–5, 6–7, 8–9, 10–11, 18–21, 24–25, 58–59, 78–79, 98–100, 118–120, 320–321, 374–375, 398–399, 404–405, 464–465, 466–467
Students will apply and adapt a variety of appropriate strategies to solve problems.	
3.PS.9 Use trial and error to solve problems	**SE/TE: 374–375**
3.PS.10 Use process of elimination to solve problems	**SE/TE: 374–375**
3.PS.11 Make pictures/diagrams of problems	**SE/TE: 58–59, 98–100, 140–141, 142–143, 144–146, 148–149, 150–151, 152–153, 154–156, 164–165, 174–176, 196–198, 316–318, 320–321, 400–401, 404–405, 426–428, 440–443** 110–112, 118–120, 132–133, 206–207, 218–221, 374–375, 422–424, 448–450
3.PS.12 Use physical objects to model problems	**SE/TE: 34–35, 50–52, 68–70, 86–87, 90–91, 164–165, 174–176, 268–269, 342–343** 32–33, 48–49, 66–67, 108–109, 114–115, 306–307, 308–311, 422–424
3.PS.13 Work in collaboration with others to solve problems	**SE/TE: 269, 359B** 320–321
3.PS.14 Make organized lists to solve numerical problems	**SE/TE: 24–25** 118–120
3.PS.15 Make charts to solve numerical problems	**SE/TE: 118–120, 122–124, 126–127, 128–129, 130–131**
3.PS.16 Analyze problems by identifying relationships	**SE/TE: 32–33, 66–67, 122–124, 126–127, 128–129, 130–131, 154–156, 184–185, 186–188, 190–191, 192–193, 194–195, 224–226, 298–299, 360–361, 398–399, 400–401, 420–421, 436–437, 460–462** 4–5, 6–7, 8–9, 10–11, 12–13, 16–17, 18–21, 24–25, 36–38, 72–73, 110–112, 114–115, 118–120, 132–133, 150–151, 206–207, 208–209, 210–211, 218–221, 268–269, 412–413, 414–415, 422–424, 426–428, 482–483
3.PS.17 Analyze problems by identifying relevant versus irrelevant information	**SE/TE: 320–321, 384–385, 460–462** 132–133, 448–450
3.PS.18 Analyze problems by observing patterns	**SE/TE: 122–124, 126–127, 128–129, 130–131, 150–151, 436–437, 460–462** 118–120, 412–413
3.PS.19 State a problem in their own words	**SE/TE: 118–120, 298–299** 58–59, 78–79, 98–100, 320–321, 448–450

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
Students will monitor and reflect on the process of mathematical problem solving.	
3.PS.20 Determine what information is needed to solve a problem	**SE/TE: 132–133, 154–156, 320–321, 404–405, 448–450** 118–120, 374–375, 384–385, 400–401, 426–428
3.PS.21 Discuss with peers to understand a problem situation	**SE/TE: 154–156, 316–318** 58–59, 98–100, 118–120, 320–321, 374–375, 384–385, 426–428, 448–450
3.PS.22 Discuss the efficiency of different representations of a problem	**SE/TE: 118–120, 316–318, 420–421** 140–141, 142–143, 144–146, 148–149, 150– 151, 152–153, 154–156, 320–321, 384–385, 398–399, 400–401, 412–413, 416–417, 418–419, 426–428
3.PS.23 Verify results of a problem	**SE/TE: 78–79, 444–445** 426–428
3.PS.24 Recognize invalid approaches	**SE/TE: 374–375** 320–321
3.PS.25 Determine whether a solution is reasonable in the context of the original problem	**SE/TE: 44–46, 74–76, 78–79, 320–321, 374–375, 400–401, 438–439** 48–49, 58–59, 98–100, 316–318, 402–403, 448–450
Reasoning and Proof Strand	
Students will recognize reasoning and proof as fundamental aspects of mathematics.	
3.RP.1 Use representations to support mathematical ideas	**SE/TE: 86–87, 90–91, 110–112, 114–115, 118–120, 132–133, 276–277, 288–289, 290–293, 298–299, 306–307, 316–318, 440–443, 464–465, 466–467, 482–483** 4–5, 6–7, 8–9, 32–33, 66–67, 108–109, 140–141, 142–143, 144–146, 148–149, 206–207, 266–267, 280–281, 308–311, 384–385, 392–394, 396–397, 398–399, 412–413, 458–459
3.RP.2 Determine whether a mathematical statement is true or false and explain why	**SE/TE: 10–11, 252–253** 482–483
Students will make and investigate mathematical conjectures.	
3.RP.3 Investigate the use of knowledgeable guessing by generalizing mathematical ideas	**SE/TE: 252–253, 374–375, 482–483** 282–283
3.RP.4 Make conjectures from a variety of representations	**SE/TE: 374–375, 482–483** 282–283
Students will develop and evaluate mathematical arguments and proofs.	
3.RP.5 Justify general claims or conjectures, using manipulatives, models, and expressions	**SE/TE: 224–226, 260–262, 374–375** 48–49, 264–265
3.RP.6 Develop and explain an argument using oral, written, concrete, pictorial, and/or graphical forms	**SE/TE: 224–226, 482–483** 34–35, 50–52, 86–87, 90–91, 164–165, 172–173, 174–176, 196–198, 266–267, 276–277, 278–279, 280–281, 282–283, 284–286, 288–289, 290–293, 298–299, 374–375, 464–465, 466–467
3.RP.7 Discuss, listen, and make comments that support or reject claims made by other students	**SE/TE: 224–226, 482–483**

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
Students will select and use various types of reasoning and methods of proof.	
3.RP.8 Support an argument by trying many cases	**SE/TE: 252–253, 374–375**
Communication Strand	
Students will organize and consolidate their mathematical thinking through communication.	
3.CM.1 Understand and explain how to organize their thought process	**SE/TE: 118–120, 316–318** 4–5, 6–7, 32–33, 34–35, 36–38, 66–67, 86–87, 88–89, 110–112, 114–115, 140–141, 142–143, 164–165, 172–173, 194–195, 234–237, 276–277, 278–279, 312–314, 374–375, 392–394, 412–413, 414–415, 440–443, 482–483
3.CM.2 Verbally explain their rationale for strategy selection	**SE/TE: 118–120** 58–59, 78–79, 98–100, 186–188, 190–191, 194–195, 192–193, 320–321
3.CM.3 Provide reasoning both in written and verbal form	**SE/TE: 118–120, 316–318** 12–13, 32–33, 36–38, 66–67, 98–100, 110–112, 114–115, 164–165, 186–188, 276–277, 278–279, 280–281, 312–314, 392–394, 396–397, 412–413, 414–415, 416–417, 440–443, 482–483
Students will communicate their mathematical thinking coherently and clearly to peers, teachers, and others.	
3.CM.4 Organize and accurately label work	**SE/TE: 306–307, 312–314** 118–120, 276–277, 278–279, 280–281, 282–283, 284–286, 288–289, 290–293, 298–299, 308–311, 316–318, 320–321, 392–394, 396–397, 398–399, 400–401, 402–403, 404–405, 436–437, 438–439, 440–443, 444–445, 446–447, 448–450
3.CM.5 Share organized mathematical ideas through the manipulation of objects, drawings, pictures, charts, graphs, tables, diagrams, models, symbols, and expressions in written and verbal form	**SE/TE: 58–59, 68–70, 98–100, 116–117, 164–165, 172–173, 174–176, 196–198, 210–211, 264–265, 266–267, 298–299, 312–314, 316–318, 360–361, 426–428, 458–459, 464–465, 466–467, 482–483** 4–5, 6–7, 32–33, 34–35, 66–67, 86–87, 108–109, 110–112, 140–141, 186–188, 208–209, 260–262, 276–277, 320–321, 328–331, 350–351, 374–375, 392–394, 412–413, 440–443, 460–462
3.CM.6 Answer clarifying questions from others	**SE/TE: 368, 449** 316–318, 360–361
Students will analyze and evaluate the mathematical thinking and strategies of others.	
3.CM.7 Listen for understanding of mathematical solutions shared by other students	**SE/TE: 267B, 357B** 4–5, 6–7, 36–38, 66–67, 92–94, 110–112, 114–115, 164–165, 186–188, 234–237, 276–277, 278–279, 308–311, 328–331, 350–351, 384–385, 392–394, 412–413, 414–415, 440–443
3.CM.8 Consider strategies used and solutions found in relation to their own work	**SE/TE: 24, 34, 78** 118–120, 316–318, 320–321, 360–361, 426–428

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
Students will use the language of mathematics to express mathematical ideas precisely.	
3.CM.9 Increase their use of mathematical vocabulary and language when communicating with others	**SE/TE: 279B, 355B** 4–5, 6–7, 32–33, 66–67, 86–87, 110–112, 140–141, 164–165, 186–188, 234–237, 276–277, 306–307, 328–331, 338–339, 350–351, 374–375, 392–394, 412–413, 440–443, 482–483
3.CM.10 Describe objects, relationships, solutions, and rationale using appropriate vocabulary	**SE/TE: 16–17, 18–21, 24–25, 110–112, 114–115, 186–188, 190–191, 192–193, 194–195, 234–237, 238–240, 244–245, 252–253, 306–307, 316–318, 334–337, 340–341, 350–351, 352–354, 358–359, 360–361, 398–399, 400–401, 412–413, 416–417, 418–419** 4–5, 32–33, 66–67, 86–87, 108–109, 140–141, 164–165, 196–198, 206–207, 242–243, 260–262, 308–311, 328–331, 356–357, 374–375, 420–421, 440–443, 458–459
3.CM.11 Decode and comprehend mathematical visuals and symbols to construct meaning	**SE/TE: 32–33, 66–67, 298–299, 392–394, 396–397, 402–403, 426–428, 440–443** 4–5, 6–7, 8–9, 10–11, 110–112, 164–165, 206–207, 208–209, 210–211, 276–277, 278–279, 280–281, 282–283, 284–286, 306–307, 412–413, 414–415, 416–417, 458–459, 482–483
Connections Strand	
Students will recognize and use connections among mathematical ideas.	
3.CN.1 Recognize, understand, and make connections in their everyday experiences to mathematical ideas	**SE/TE: 316–318, 350–351, 352–354, 358–359, 458–459** 116–117, 118–120, 308–311, 312–314, 320–321, 328–331, 332–333, 334–337, 338–339, 340–341, 342–343, 356–357, 384–385, 392–394, 396–397, 398–399, 400–401, 402–403, 404–405, 482–483
3.CN.2 Compare and contrast mathematical ideas	**SE/TE: 10, 109**
3.CN.3 Connect and apply mathematical information to solve problems	**SE/TE: 154–156, 316–318, 400–401, 426–428** 44–46, 58–59, 74–76, 78–79, 98–100, 118–120, 132–133, 164–165, 172–173, 174–176, 186–188, 190–191, 192–193, 194–195, 196–198, 268–269, 320–321, 360–361, 384–385, 412–413, 418–419, 460–462, 464–465, 466–467
Students will understand how mathematical ideas interconnect and build on one another to produce a coherent whole.	
3.CN.4 Understand multiple representations and how they are related	**SE/TE: 4–5, 6–7, 8–9, 10–11, 12–13, 18–21, 306–307, 392–394, 396–397, 398–399, 402–403, 412–413, 416–417, 418–419, 426–428, 436–437** 36–38, 72–73, 116–117, 118–120, 140–141, 142–143, 144–146, 148–149, 150–151, 152–153, 154–156, 308–311, 316–318, 448–450

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
3.CN.5 Model situations with objects and representations and be able to make observations	**SE/TE: 164–165, 174–176, 196–198, 206–207, 208–209, 224–226, 288–289, 290–293, 298–299, 316–318, 440–443** 34–35, 50–52, 58–59, 68–70, 78–79, 86–87, 90–91, 98–100, 108–109, 110–112, 114–115, 118–120, 218–221, 260–262, 268–269, 276–277, 278–279, 280–281, 282–283, 284–286, 422–424, 482–483
Students will recognize and apply mathematics in contexts outside of mathematics.	
3.CN.6 Recognize the presence of mathematics in their daily lives	**SE/TE: 164–165, 172–173, 234–237, 242–243, 244–245, 246–247, 248–249** 118–120, 132–133, 174–176, 196–198, 238–240, 308–311, 312–314, 316–318, 320–321, 384–385, 392–394, 396–397, 398–399, 400–401, 402–403, 404–405, 458–459, 464–465, 466–467, 482–483
3.CN.7 Apply mathematics to solve problems that develop outside of mathematics	**SE/TE: 164–165, 172–173, 196–198, 400–401** 118–120, 132–133, 174–176, 316–318, 374–375, 384–385, 458–459, 482–483
3.CN.8 Recognize and apply mathematics to other disciplines	**SE/TE: 47, 77, 113, 169, 215, 463** 384–385
Representation Strand	
Students will create and use representations to organize, record, and communicate mathematical ideas.	
3.R.1 Use verbal and written language, physical models, drawing charts, graphs, tables, symbols, and equations as representations	**SE/TE: 4–5, 6–7, 8–9, 10–11, 12–13, 18–21, 24–25, 34–35, 58–59, 68–70, 86–87, 90–91, 98–100, 108–109, 110–112, 114–115, 116–117, 118–120, 122–124, 126–127, 128–129, 130–131, 132–133, 140–141, 142–143, 144–146, 148–149, 150–151, 152–153, 154–156, 164–165, 172–173, 174–176, 196–198, 210–211, 218–221, 238–240, 242–243, 244–245, 246–247, 248–249, 250–251, 266–267, 288–289, 290–293, 298–299, 316–318, 392–394, 396–397, 426–428, 440–443, 444–445, 446–447, 458–459, 464–465, 466–467, 482–483** 32–33, 36–38, 40–42, 44–46, 48–49, 66–67, 72–73, 88–89, 206–207, 234–237, 268–269, 276–277, 306–307, 308–311, 360–361, 374–375, 398–399, 400–401, 412–413, 436–437
3.R.2 Share mental images of mathematical ideas and understandings	**SE/TE: 34, 68, 436** 110–112, 118–120, 164–165, 174–176, 196–198, 316–318, 384–385, 422–424, 440–443
3.R.3 Recognize and use external mathematical representations	**SE/TE: 316–318** 118–120, 392–394, 396–397, 402–403
3.R.4 Use standard and nonstandard representations with accuracy and detail	**SE/TE: 426–428** 4–5, 6–7, 8–9, 10–11, 18–21, 140–141, 142–143, 144–146, 148–149, 150–151, 152–153, 154–156, 268–269, 392–394, 396–397, 440–443

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
Students will select, apply, and translate among mathematical representations to solve problems.	
3.R.5 Understand similarities and differences in representations	**SE/TE: 206–207, 208–209, 218–221, 436–437** 4–5, 6–7, 8–9, 10–11, 12–13, 18–21, 24–25, 140–141, 142–143, 144–146, 148–149, 150–151, 152–153, 154–156, 210–211, 268–269, 316–318, 412–413, 416–417, 426–428, 440–443, 460–462
3.R.6 Connect mathematical representations with problem solving	**SE/TE: 132–133, 154–156, 316–318, 404–405, 444–445, 446–447, 448–450** 58–59, 78–79, 98–100, 268–269, 360–361, 374–375, 384–385, 426–428, 440–443, 460–462
3.R.7 Construct effective representations to solve problems	**SE/TE: 58–59, 78–79, 98–100, 118–120, 132–133, 316–318, 404–405, 426–428, 440–443, 448–450** 50–52, 86–87, 90–91, 110–112, 140–141, 142–143, 144–146, 148–149, 150–151, 152–153, 154–156, 164–165, 174–176, 196–198, 268–269, 360–361, 374–375, 384–385
Students will use representations to model and interpret physical, social, and mathematical phenomena.	
3.R.8 Use mathematics to show and understand physical phenomena (e.g., estimate and represent the number of apples in a tree)	**SE/TE: 316–318, 356–357, 358–359, 402–403, 350–351, 352–354** 118–120, 164–165, 174–176, 320–321, 328–331, 332–333, 334–337, 338–339, 374–375, 384–385, 404–405, 448–450, 460–462, 464–465, 466–467, 482–483
3.R.9 Use mathematics to show and understand social phenomena (e.g., determine the number of buses required for a field trip)	**SE/TE: 116–117, 132–133, 458–459** 34–35, 58–59, 78–79, 98–100, 118–120, 196–198, 312–314, 320–321, 374–375, 392–394, 396–397, 398–399, 400–401, 404–405, 426–428, 460–462, 464–465, 466–467, 482–483
3.R.10 Use mathematics to show and understand mathematical phenomena (e.g., use a multiplication grid to solve odd and even number problems)	**SE/TE: 16–17, 110–112** 4–5, 6–7, 8–9, 32–33, 66–67, 86–87, 108–109, 118–120, 122–124, 140–141, 142–143, 144–146, 148–149, 308–311, 374–375, 392–394, 422–424, 440–443, 460–462, 464–465
Number Sense and Operations Strand	
Students will understand numbers, multiple ways of representing numbers, relationships among numbers, and number systems.	
3.N.1 Skip count by 25's, 50's, 100's to 1,000 [September-April]	**TE: 12–13**
3.N.2 Read and write whole numbers to 1,000 [September-April]	**SE/TE: 4–5, 6–7, 8–9, 10–11, 12–13, 16–17, 24–25** 32–33, 34–35, 66–67, 68–70, 72–73, 86–87, 88–89, 108–109, 110–112, 114–115, 116–117, 118–120, 132–133, 320–321, 392–394, 396–397, 412–413, 414–415, 416–417, 436–437, 438–439
3.N.3 Compare and order numbers to 1,000 [September-April]	**SE/TE: 12–13, 16–17, 34–35, 36–38, 40–42** 44–46, 50–52, 54–55, 56–57, 68–70, 96–97

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
3.N.4 Understand the place value structure of the base ten number system: 10 ones = 1 ten; 10 tens = 1 hundred; 10 hundreds = 1 thousand [September-April]	**SE/TE: 4–5, 6–7, 8–9, 10–11, 12–13, 16–17, 24–25, 40–42, 86–87, 90–91, 308–311** 44–46, 50–52, 54–55, 56–57, 74–76, 88–89, 92–94, 96–97, 306–307, 312–314, 412–413, 416–417, 418–419, 420–421, 422–424
3.N.5 Use a variety of strategies to compose and decompose three digit numbers [September-April]	**SE/TE: 4–5, 6–7, 8–9, 10–11, 12–13, 32–33, 36–38, 50–52, 86–87, 90–91** 54–55, 56–57, 58–59, 88–89, 92–94, 96–97, 98–100
3.N.6 Use and explain the commutative property of addition and multiplication [September-April]	**SE/TE: 32–33, 110–112, 186–188, 190–191, 192–193, 194–195** 140–141, 142–143, 152–153
3.N.7 Use 1 as the identity element for multiplication [September-April]	**SE/TE: 130–131**
3.N.8 Use the zero property of multiplication [September-April]	**SE/TE: 130–131**
3.N.9 Understand and use the associative property of addition [September-April]	**SE/TE: 32–33**
3.N.10 Develop an understanding of fractions as part of a whole unit and as parts of a collection [September-April]	**SE/TE: 278–279, 280–281, 306–307, 308–311**
3.N.11 Use manipulatives, visual models, and illustrations to name and represent unit fractions (1/2, 1/3 , 1/4 , 1/5 , 1/6 , and 1/10) as part of a whole or a set of objects [September-April]	**SE/TE: 282–283, 306–307, 308–311, 316–318**
3.N.12 Understand and recognize the meaning of numerator and denominator in the symbolic form of a fraction [September-April]	**SE/TE: 306–307** 308–311, 316–318
3.N.13 Recognize fractional numbers as equal parts of a whole [September-April]	**SE/TE: 276–277, 278–279, 280–281, 282–283, 284–286, 306–307, 316–318** 308–311
3.N.14 Explore equivalent fractions (1/2, 1/3, 1/4) [May-June]	**SE/TE: 284–286** 308–311, 316–318
3.N.15 Compare and order unit fractions (1/ 2, 1/3, 1/4) and find their approximate locations on a number line [May-June]	**SE/TE: 288–289, 290–293**
3.N.16 Identify odd and even numbers [September-April]	**TE: 208–209** **SE/TE:** 122–124
3.N.17 Develop an understanding of the properties of odd/even numbers as a result of addition or subtraction [September-April]	**TE: 208–209**
Students will understand meanings of operations and procedures, and how they relate to one another.	
3.N.18 Use a variety of strategies to add and subtract 3-digit numbers (with and without regrouping) [September-April]	**SE/TE: 34–35, 36–38, 44–46, 48–49, 50–52, 54–55, 56–57, 74–76, 90–91, 92–94, 96–97, 312–314** 316–318

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
3.N.19 Develop fluency with single-digit multiplication facts [September-April]	**SE/TE: 108–109, 110–112, 114–115, 116–117, 118–120, 122–124, 126–127, 128–129, 130–131, 132–133, 140–141, 142–143, 144–146, 148–149, 150–151, 152–153, 154–156, 186–188, 190–191, 192–193, 194–195, 412–413, 414–415, 416–417, 418–419, 420–421, 422–424, 448–450**
3.N.20 Use a variety of strategies to solve multiplication problems with factors up to 12 X 12 [September-April]	**SE/TE: 108–109, 110–112, 114–115, 116–117, 118–120, 122–124, 126–127, 128–129, 130–131, 132–133, 140–141, 142–143, 144–146, 148–149, 150–151, 152–153, 154–156, 186–188, 190–191, 192–193, 194–195, 412–413, 414–415, 416–417, 418–419, 420–421, 422–424**
3.N.21 Use the area model, tables, patterns, arrays, and doubling to provide meaning for multiplication [September-April]	**SE/TE: 108–109, 110–112, 114–115, 116–117, 118–120, 140–141, 142–143, 144–146, 148– 149, 150–151, 152–153, 154–156, 186–188, 190–191, 192–193, 194–195, 412–413, 416– 417, 418–419** 122–124, 126–127, 128–129, 130–131
3.N.22 Demonstrate fluency and apply single-digit division facts [September-April]	**SE/TE: 186–188, 190–191, 192–193, 194–195, 436–437, 438–439, 440–443, 444–445, 446– 447, 448–450**
3.N.23 Use tables, patterns, halving, and manipulatives to provide meaning for division [September-April]	**SE/TE: 164–165, 174–176, 436–437, 440–443, 446–447**
3.N.24 Develop strategies for selecting the appropriate computational and operational method in problem-solving situations [September-April]	**SE/TE: 34–35, 36–38, 44–46, 48–49, 54–55, 56–57, 58–59, 66–67, 68–70, 72–73, 74–76, 78–79, 86–87, 88–89, 90–91, 92–94, 96–97, 98–100, 132–133, 196–198, 316–318, 320–321, 422– 424, 440–443, 444–445, 446–447, 448–450** 50–52, 412–413, 416–417, 418–419, 420–421, 426–428
Students will compute accurately and make reasonable estimates.	
3.N.25 Estimate numbers up to 500 [September-April]	SE/TE: 44–46, 74–76, 438–439
3.N.26 Recognize real world situations in which an estimate (rounding) is more appropriate [September-April]	**SE/TE: 438–439** 40–42
3.N.27 Check reasonableness of an answer by using estimation [September-April]	**SE/TE: 44–46, 48–49, 54–55, 56–57, 74–76, 78–79, 88–89, 92–94, 316–318, 414–415, 422–424, 438–439** 40–42
Algebra Strand	
Students will perform algebraic procedures accurately.	
3.A.1 Use the symbols <, >, = (with and without the use of a number line) to compare whole numbers and unit fractions (1/2, 1/3, 1/4, 1/ 5, 1/6, and 1/10) [September-April]	**SE/TE: 34–35, 288–289, 290–293** 130–131

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
Students will recognize, use, and represent algebraically patterns, relations, and functions.	
3.A.2 Describe and extend numeric (+,–) and geometric patterns [September-April]	**SE/TE: 122–124, 126–127, 128–129, 130–131, 206–207, 208–209, 210–211, 218–221, 360– 361, 436–437**
Geometry Strand	
Students will use visualization and spatial reasoning to analyze characteristics and properties of geometric shapes.	
3.G.1 Define and use correct terminology when referring to shapes (circle, triangle, square, rectangle, rhombus, trapezoid, and hexagon) [September-April]	**SE/TE: 246–247, 248–249, 250–251, 268–269**
3.G.2 Identify congruent and similar figures [September-April]	**SE/TE: 260–262**
3.G.3 Name, describe, compare, and sort three-dimensional shapes: cube, cylinder, sphere, prism, and cone [September-April]	**SE/TE: 234–237, 238–240**
3.G.4 Identify the faces on a three-dimensional shape as two dimensional shapes [September-April]	**SE/TE: 238–240, 342–343**
Students will apply transformations and symmetry to analyze problem-solving situations.	
3.G.5 Identify and construct lines of symmetry [September-April]	**SE/TE: 264–265, 266–267, 268–269**
Measurement Strand	
Students will determine what can be measured and how, using appropriate methods and formulas.	
3.M.1 Select tools and units (customary) appropriate for the length measured [September-April]	**SE/TE: 334–337**
3.M.2 Use a ruler/yardstick to measure to the nearest standard unit (whole and 1/2 inches, whole feet, and whole yards) [September-April]	**SE/TE: 328–331, 332–333**
3.M.3 Measure objects, using ounces and pounds [September-April]	**SE/TE: 340–341**
3.M.4 Recognize capacity as an attribute that can be measured [September-April]	**SE/TE: 338–339, 356–357**
3.M.5 Compare capacities (e.g., Which contains more? Which contains less?) [September-April]	**SE/TE: 338–339, 356–357**
3.M.6 Measure capacity, using cups, pints, quarts, and gallons [September-April]	**SE/TE: 338–339**
Students will use units to give meaning to measurements.	
3.M.7 Count and represent combined coins and dollars, using currency symbols ($0.00) [September-April]	**SE/TE: 18–21, 308–311, 312–314**
3.M.8 Relate unit fractions to the face of the clock: Whole = 60 minutes; 1/ 2 = 30 minutes; 1/4 = 15 minutes [September-April]	**SE/TE: 392–394**
Students will develop strategies for estimating measurements.	
3.M.9 Tell time to the minute, using digital and analog clocks [September-April]	**SE/TE: 392–394, 396–397**
3.M.10 Select and use standard (customary) and non-standard units to estimate measurements [September-April]	**SE/TE: 328–331, 334–337, 338–339, 340–341**
Statistics and Probability Strand	

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
Students will collect, organize, display, and analyze data.	
3.S.1 Formulate questions about themselves and their surroundings [May-June]	**TE: 72–73**
3.S.2 Collect data using observation and surveys, and record appropriately [May-June]	**SE/TE: 458–459**
3.S.3 Construct a frequency table to represent a collection of data [September-April]	**SE/TE: 458–459, 478–481**
3.S.4 Identify the parts of pictographs and bar graphs [September-April]	**SE/TE: 460–462**
3.S.5 Display data in pictographs and bar graphs [September-April]	**SE/TE: 460–462, 464–465, 466–467**
3.S.6 State the relationships between pictographs and bar graphs [September-April]	**SE/TE: 460–462**
3.S.7 Read and interpret data in bar graphs and pictographs [September-April]	**SE/TE: 460–462, 482–483**
Students will make predictions that are based upon data analysis.	
3.S.8 Formulate conclusions and make predictions from graphs [September-April]	**SE/TE: 460–462, 482–483**

Scott Foresman-Addison Wesley enVisionMATH
to the
New York State Mathematics
Core Curriculum Learning Standards
Grade 4

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
Problem Solving Strand	
Students will build new mathematical knowledge through problem solving.	
4.PS.1 Explore, examine, and make observations about a social problem or mathematical situation	**SE/TE: 44–46, 142–143, 150–151, 154–155, 156–157, 238–240** 4–6, 54–56, 58–59, 76–78, 96–97, 98–99, 100–101, 128–129, 144–145, 164–165, 166–167, 234–235, 274–275, 290–292, 320–322, 356–357, 364–365, 402–403, 404–405, 460–461
4.PS.2 Understand that some ways of representing a problem are more helpful than others	**SE/TE: 62–63, 66–67, 100–101, 170–172, 318–319, 320–322, 406–407, 410–411** 4–6, 16–17, 54–56, 76–78, 80–81, 82–83, 84–85, 98–99, 106–108, 110–112, 142–143, 144–145, 146–149, 152–153, 164–165, 166–167, 250–253, 268–269, 402–403, 404–405, 418–419, 420–422
4.PS.3 Interpret information correctly, identify the problem, and generate possible solutions	**SE/TE: 134–135, 156–157, 186–187, 250–253, 258–260** 76–78, 102–104, 106–108, 110–112, 128–129, 142–143, 144–145, 146–149, 150–151, 164–165, 166–167, 168–169, 216–218, 220–221, 222–223, 296–298, 318–319, 402–403, 468–469, 470–471
Students will solve problems that arise in mathematics and in other contexts.	
4.PS.4 Act out or model with manipulatives activities involving mathematical content from literature	**SE/TE: 2F, 74F, 266F**
4.PS.5 Formulate problems and solutions from everyday situations	**SE/TE: 20–21, 102–104, 134–135, 146–149, 156–157, 186–187, 402–403** 4–6, 10–13, 16–17, 44–46, 60–61, 84–85, 86–88, 100–101, 110–112, 114–115, 142–143, 144–145, 150–151, 164–165, 166–167, 170–172, 174–176, 182–183, 282–283, 336–338, 356–357, 392–393, 420–422, 440–441, 468–469, 470–471, 472–474
4.PS.6 Translate from a picture/diagram to a numeric expression	**SE/TE: 4–6, 54–56, 60–61, 68–69, 76–78, 84–85, 86–88, 102–104, 106–108, 116–118, 156–157, 170–172, 296–298, 410–411** 16–17, 44–46, 58–59, 96–97, 130–131, 132–133, 150–151, 152–153, 164–165, 182–183, 268–269, 274–275, 280–281, 318–319, 320–322, 356–357, 402–403, 406–407, 418–419, 420–422

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
4.PS.7 Represent problem situations in oral, written, concrete, pictorial, and graphical forms	**SE/TE: 4–6, 54–56, 68–69, 76–78, 86–88, 102–104, 106–108, 116–118, 134–135, 146–149, 152–153, 156–157, 168–169, 170–172, 182–183, 222–223, 224–226, 234–235, 236–237, 238–240, 250–253, 258–260, 276–278, 280–281, 282–283, 296–298, 336–338, 402–403, 420–422, 460–461** 16–17, 18–19, 20–21, 60–61, 62–63, 64–65, 84–85, 100–101, 130–131, 132–133, 150–151, 164–165, 174–176, 186–187, 216–218, 268–269, 274–275, 290–292, 308–309, 324–325, 376–377, 404–405, 406–407, 410–411, 418–419
4.PS.8 Select an appropriate representation of a problem	**SE/TE: 224–226, 238–240** 86–88, 274–275, 346–349, 350–351, 352–353
Students will apply and adapt a variety of appropriate strategies to solve problems.	
4.PS.9 Use trial and error to solve problems	**SE/TE: 308–309**
4.PS.10 Use process of elimination to solve problems	**SE/TE: 308–309**
4.PS.11 Make pictures/diagrams of problems	**SE/TE: 34–35, 44–46, 68–69, 76–78, 86–88, 102–104, 106–108, 152–153, 168–169, 170–172, 182–183, 258–260, 282–283, 392–393, 460–461, 470–471** 10–13, 18–19, 62–63, 64–65, 84–85, 116–118, 130–131, 132–133, 146–149, 216–218, 238–240, 268–269, 274–275, 324–325, 440–441
4.PS.12 Use physical objects to model problems	**SE/TE: 4–6, 106–108, 134–135, 168–169, 170–172, 182–183, 224–226, 234–235, 236–237, 250–253, 296–298** 324–325
4.PS.13 Work in collaboration with others to solve problems	**SE/TE: 144, 169**
4.PS.14 Make organized lists to solve numerical problems	**SE/TE: 20–21**
4.PS.15 Make charts to solve numerical problems	**SE/TE: 128–129, 130–131, 132–133, 156–157, 336–338, 476–477** 16–17, 102–104, 116–118, 146–149, 152–153, 274–275
4.PS.16 Analyze problems by identifying relationships	**SE/TE: 10–13, 80–81, 82–83, 84–85, 128–129, 130–131, 132–133, 134–135, 164–165, 166–167, 224–226, 234–235, 236–237, 336–338, 356–357, 460–461, 472–474, 476–477** 76–78, 86–88, 96–97, 98–99, 102–104, 110–112, 142–143, 208–209, 220–221, 222–223, 238–240, 268–269, 274–275, 276–278, 280–281, 282–283, 376–377, 378–379, 404–405, 406–407, 410–411, 418–419, 420–422, 440–441
4.PS.17 Analyze problems by identifying relevant versus irrelevant information	**SE/TE: 34–35**

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
4.PS.18 Analyze problems by observing patterns	**SE/TE: 58–59, 66–67, 82–83, 96–97, 128–129, 130–131, 132–133, 142–143, 164–165, 336–338, 356–357** 80–81, 86–88, 150–151, 460–461
4.PS.19 State a problem in their own words	**SE/TE: 76–78** 34–35, 80–81, 82–83, 84–85, 100–101, 102–104, 110–112, 142–143, 144–145, 146–149, 150–151, 156–157, 174–176, 182–183, 186–187, 274–275, 282–283, 402–403, 404–405, 406–407, 410–411, 418–419, 420–422, 472–474
Students will monitor and reflect on the process of mathematical problem solving.	
4.PS.20 Determine what information is needed to solve a problem	**SE/TE: 34–35, 134–135, 156–157, 182–183, 186–187, 336–338, 420–422** 82–83, 84–85, 86–88, 102–104, 114–115, 116–118, 142–143, 144–145, 146–149, 152–153, 154–155, 164–165, 168–169, 170–172, 174–176, 220–221, 274–275, 282–283, 300–302, 328–330, 392–393, 402–403, 404–405, 406–407, 410–411, 418–419, 472–474
4.PS.21 Discuss with peers to understand a problem situation	**SE/TE: 255, 275**
4.PS.22 Discuss the efficiency of different representations of a problem	**SE/TE: 99, 252** 282–283, 404–405
4.PS.23 Verify results of a problem	**SE/TE: 102–104, 110–112, 174–176, 208–209, 308–309** 86–88, 106–108, 114–115, 134–135, 142–143, 146–149, 170–172
4.PS.24 Recognize invalid approaches	**SE/TE: 103, 586**
4.PS.25 Determine whether a solution is reasonable in the context of the original problem	**SE/TE: 102–104, 110–112, 166–167, 174–176, 308–309** 34–35, 36–38, 42–43, 66–67, 96–97, 106–108, 114–115, 134–135, 142–143, 146–149, 152–153, 170–172, 208–209, 290–292, 300–302, 472–474
Reasoning and Proof Strand	
Students will recognize reasoning and proof as fundamental aspects of mathematics.	
4.RP.1 Use representations to support mathematical ideas	**SE/TE: 4–6, 10–13, 62–63, 76–78, 106–108, 128–129, 130–131, 132–133, 134–135, 146–149, 152–153, 168–169, 170–172, 182–183, 222–223, 224–226, 234–235, 236–237, 238–240, 296–298, 318–319, 320–322, 346–349, 350–351, 352–353, 392–393, 402–403, 406–407, 410–411, 418–419, 420–422, 438–439, 476–477** 16–17, 54–56, 58–59, 60–61, 64–65, 68–69, 86–88, 102–104, 150–151, 156–157, 164–165, 216–218, 220–221, 268–269, 274–275, 276–278, 280–281, 282–283, 290–292, 324–325, 336–338, 378–379, 404–405, 468–469, 470–471

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
4.RP.2 Determine whether a mathematical statement is true or false and explain why	**SE/TE: 373, 377** 146–149
Students will make and investigate mathematical conjectures.	
4.RP.3 Investigate the use of knowledgeable guessing by generalizing mathematical ideas	**SE/TE: 208**
4.RP.4 Make conjectures from a variety of representations	**SE/TE: 420** 402–403
Students will develop and evaluate mathematical arguments and proofs.	
4.RP.5 Justify general claims or conjectures, using manipulatives, models, and expressions	**SE/TE: 208–209**
4.RP.6 Develop and explain an argument using oral, written, concrete, pictorial, and/or graphical forms	**SE/TE: 405, 407** 208–209, 402–403
4.RP.7 Discuss, listen, and make comments that support or reject claims made by other students	**SE/TE: 153, 323**
Students will select and use various types of reasoning and methods of proof.	
4.RP.8 Support an argument by trying many cases	**SE/TE: 308–309**
4.RP.9 Disprove an argument by finding counterexamples	**SE/TE: 208**
Communication Strand	
Students will organize and consolidate their mathematical thinking through communication.	
4.CM.1 Understand and explain how to organize their thought process	**SE/TE: 436** 76–78, 84–85, 86–88, 100–101, 102–104, 154–155, 156–157, 166–167, 168–169, 170–172, 182–183, 258–260, 402–403
4.CM.2 Verbally explain their rationale for strategy selection	**TE: 293** **SE/TE:** 10–13, 156–157, 170–172, 174–176, 274–275, 282–283, 328–330, 404–405
4.CM.3 Provide reasoning both in written and verbal form	**SE/TE: 208–209, 476–477** 4–6, 28–30, 62–63, 76–78, 100–101, 128–129, 142–143, 164–165, 196–197, 220–221, 268–269, 274–275, 290–292, 318–319, 346–349, 402–403, 404–405, 460–461, 468–469
Students will communicate their mathematical thinking coherently and clearly to peers, teachers, and others.	
4.CM.4 Organize and accurately label work	**SE/TE: 76–78, 420–422, 476–477** 128–129, 130–131, 132–133, 152–153, 258–260, 276–278, 280–281, 282–283, 336–338, 438–439
4.CM.5 Share organized mathematical ideas through the manipulation of objects, drawings, pictures, charts, graphs, tables, diagrams, models, symbols, and expressions in written and verbal form	**SE/TE: 402–403, 420–422** 4–6, 10–13, 76–78, 142–143, 144–145, 146–149, 150–151, 152–153, 154–155, 156–157, 168–169, 174–176, 182–183, 186–187, 234–235, 236–237, 238–240, 250–253, 268–269, 276–278, 280–281, 282–283, 290–292, 296–298, 404–405, 406–407, 410–411, 418–419, 476–477

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
4.CM.6 Answer clarifying questions from others	**SE/TE: 274, 368** 4–6, 10–13, 156–157, 168–169, 196–197, 216–218, 220–221, 222–223, 250–253, 268–269, 290–292, 296–298, 318–319, 346–349, 364–365, 402–403, 404–405, 440–441, 460–461, 468–469
Students will analyze and evaluate the mathematical thinking and strategies of others.	
4.CM.7 Restate mathematical solutions shared by other students	**SE/TE: 144, 293**
4.CM.8 Consider strategies used and solutions found in relation to their own work	**TE: 128–129** **SE/TE:** 96–97, 98–99, 100–101, 102–104, 106–108, 110–112, 114–115, 116–118, 128–129, 404–405
Students will use the language of mathematics to express mathematical ideas precisely.	
4.CM.9 Increase their use of mathematical vocabulary and language when communicating with others	**SE/TE: 196–197, 198–199, 202–203, 204–205, 390–391** 76–78, 150–151, 154–155, 168–169, 208–209, 402–403, 404–405, 406–407, 410–411, 468–469, 470–471
4.CM.10 Describe objects, relationships, solutions, and rationale using appropriate vocabulary	**SE/TE: 76–78, 196–197, 198–199, 202–203, 204–205, 216–218, 390–391, 438–439** 100–101, 150–151, 154–155, 168–169, 208–209, 406–407, 410–411, 418–419, 472–474
4.CM.11 Decode and comprehend mathematical visuals and symbols to construct meaning	**SE/TE: 4–6, 106–108, 128–129, 130–131, 132–133, 146–149, 156–157, 174–176, 196–197, 198–199, 202–203, 204–205, 234–235, 236–237, 318–319, 320–322, 390–391, 402–403, 418–419, 420–422, 460–461** 10–13, 16–17, 76–78, 152–153, 164–165, 182–183, 216–218, 220–221, 258–260, 268–269, 274–275, 276–278, 280–281, 282–283, 296–298, 324–325, 404–405, 406–407, 410–411, 440–441, 468–469, 470–471
Connections Strand	
Students will recognize and use connections among mathematical ideas.	
4.CN.1 Recognize, understand, and make connections in their everyday experiences to mathematical ideas	**SE/TE: 8–9, 19B, 300** 4–6, 82–83, 100–101, 102–104, 106–108, 128–129, 142–143, 144–145, 146–149, 164–165, 166–167, 238–240, 268–269, 318–319, 356–357, 376–377, 402–403, 404–405, 440–441, 468–469
4.CN.2 Compare and contrast mathematical ideas	**SE/TE: 10–13, 16–17, 238–240** 80–81, 82–83, 84–85, 86–88, 102–104, 280–281, 376–377, 392–393

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
4.CN.3 Connect and apply mathematical information to solve problems	**SE/TE: 10–13, 16–17, 20–21, 76–78, 106–108, 132–133, 142–143, 150–151, 164–165, 166–167, 168–169, 182–183, 186–187, 196–197, 198–199, 202–203, 204–205, 208–209, 296–298, 356–357, 438–439, 440–441, 460–461** 54–56, 60–61, 80–81, 98–99, 100–101, 128–129, 144–145, 146–149, 170–172, 216–218, 220–221, 250–253, 268–269, 274–275, 290–292, 318–319, 376–377, 402–403, 404–405, 472–474
Students will understand how mathematical ideas interconnect and build on one another to produce a coherent whole.	
4.CN.4 Understand multiple representations and how they are related	**SE/TE: 4–6, 10–13, 16–17, 62–63, 80–81, 150–151, 202–203, 204–205, 238–240, 274–275** 86–88, 98–99, 106–108, 128–129, 156–157, 250–253, 258–260, 268–269
4.CN.5 Model situations with objects and representations and be able to make observations	**SE/TE: 4–6, 10–13, 16–17, 106–108, 116–118, 134–135, 146–149, 150–151, 168–169, 170–172, 182–183, 216–218, 234–235, 236–237, 238–240, 250–253, 258–260, 346–349, 350–351, 352–353, 420–422** 18–19, 84–85, 96–97, 102–104, 128–129, 130–131, 132–133, 152–153, 156–157, 174–176, 196–197, 198–199, 268–269, 274–275, 276–278, 280–281, 282–283, 290–292, 296–298, 324–325, 392–393, 402–403, 404–405, 406–407, 410–411, 418–419, 460–461
Students will recognize and apply mathematics in contexts outside of mathematics.	
4.CN.6 Recognize the presence of mathematics in their daily lives	**SE/TE: 16–17** 4–6, 18–19, 76–78, 100–101, 102–104, 128–129, 130–131, 142–143, 146–149, 150–151, 164–165, 166–167, 168–169, 268–269, 274–275, 308–309, 336–338, 356–357, 364–365, 402–403, 440–441, 460–461, 468–469
4.CN.7 Apply mathematics to solve problems that develop outside of mathematics	**SE/TE: 16–17** 4–6, 18–19, 76–78, 82–83, 84–85, 86–88, 182–183, 186–187, 268–269, 274–275, 276–278, 280–281, 282–283, 308–309, 356–357, 364–365, 376–377, 378–379, 392–393, 402–403, 404–405, 406–407, 410–411, 418–419, 420–422, 440–441, 460–461
4.CN.8 Recognize and apply mathematics to other disciplines	**SE/TE: 39, 293** 10–13, 356–357
Representation Strand	
Students will create and use representations to organize, record, and communicate mathematical ideas.	
4.R.1 Use verbal and written language, physical models, drawing charts, graphs, tables, symbols, and equations as representations	**SE/TE: 4–6, 20–21, 44–46, 76–78, 86–88, 102–104, 106–108, 128–129, 130–131, 132–133, 134–135, 146–149, 152–153, 156–157, 168–169, 170–172, 182–183, 196–197, 198–199, 202–203, 204–205, 222–223, 234–235, 236–237, 238–240, 250–253, 258–260, 296–298, 318–319, 320–322, 336–338, 346–349, 350–**

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
continued	**351, 352–353, 402–403, 404–405, 410–411, 418–419, 420–422, 460–461** 18–19, 58–59, 84–85, 96–97, 116–118, 150–151, 164–165, 174–176, 220–221, 268–269, 274–275, 276–278, 280–281, 282–283, 290–292, 364–365, 376–377, 378–379, 406–407
4.R.2 Share mental images of mathematical ideas and understandings	**SE/TE: 28, 96, 142, 164**
4.R.3 Recognize and use external mathematical representations	**SE/TE: 4–6, 106–108, 168–169, 182–183, 296–298, 336–338** 20–21, 150–151, 170–172, 276–278, 280–281, 282–283, 402–403, 404–405, 406–407, 410–411, 418–419, 420–422
4.R.4 Use standard and nonstandard representations with accuracy and detail	**SE/TE: 4–6, 16–17, 146–149, 156–157, 168–169, 182–183, 196–197, 198–199, 202–203, 204–205, 224–226, 238–240, 250–253, 258–260, 296–298, 318–319, 320–322, 336–338, 346–349, 350–351, 352–353, 392–393, 460–461** 18–19, 76–78, 106–108, 134–135, 170–172, 174–176, 268–269, 274–275, 280–281, 282–283, 324–325, 364–365, 402–403, 404–405, 406–407, 410–411, 418–419, 420–422
Students will select, apply, and translate among mathematical representations to solve problems.	
4.R.5 Understand similarities and differences in representations	**SE/TE: 4–6, 16–17, 62–63, 80–81, 202–203, 204–205, 208–209, 222–223, 224–226, 238–240, 274–275, 460–461** 76–78, 98–99, 102–104, 166–167, 268–269, 376–377, 378–379, 418–419, 420–422
4.R.6 Connect mathematical representations with problem solving	**SE/TE: 4–6, 10–13, 16–17, 62–63, 64–65, 80–81, 86–88, 106–108, 116–118, 128–129, 130–131, 134–135, 146–149, 152–153, 156–157, 168–169, 170–172, 182–183, 208–209, 222–223, 224–226, 234–235, 236–237, 238–240, 250–253, 258–260, 296–298, 336–338, 346–349, 350–351, 352–353, 404–405, 406–407, 440–441, 460–461** 20–21, 54–56, 58–59, 76–78, 96–97, 100–101, 102–104, 110–112, 132–133, 144–145, 164–165, 166–167, 268–269, 274–275, 276–278, 280–281, 290–292, 318–319, 402–403, 410–411
4.R.7 Construct effective representations to solve problems	**SE/TE: 4–6, 86–88, 102–104, 106–108, 116–118, 134–135, 146–149, 152–153, 168–169, 170–172, 182–183, 250–253, 296–298, 336–338, 352–353, 440–441, 460–461** 16–17, 54–56, 68–69, 76–78, 80–81, 98–99, 166–167, 174–176, 234–235, 236–237, 238–240, 258–260, 268–269, 276–278, 280–281, 282–283, 324–325, 420–422, 470–471

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
Students will use representations to model and interpret physical, social, and mathematical phenomena.	
4.R.8 Use mathematics to show and understand physical phenomena (e.g., estimate and represent the number of apples in a tree)	**SE/TE: 182–183, 346–349, 350–351** 20–21, 76–78, 82–83, 84–85, 106–108, 114–115, 116–118, 134–135, 142–143, 144–145, 146–149, 164–165, 258–260, 268–269, 352–353, 364–365, 376–377, 402–403, 406–407, 440–441
4.R.9 Use mathematics to show and understand social phenomena (e.g., determine the number of buses required for a fi eld trip)	**SE/TE: 16–17** 4–6, 18–19, 76–78, 100–101, 102–104, 128–129, 142–143, 146–149, 166–167, 170–172, 174–176, 182–183, 274–275, 276–278, 308–309, 336–338, 356–357, 364–365, 376–377, 402–403, 440–441
4.R.10 Use mathematics to show and understand mathematical phenomena (e.g., use a multiplication grid to solve odd and even number problems)	**SE/TE: 4–6, 10–13, 16–17, 58–59, 62–63, 64–65, 146–149, 152–153, 208–209, 296–298, 346–349, 350–351, 460–461** 20–21, 84–85, 106–108, 170–172, 174–176, 182–183, 268–269, 274–275, 276–278, 280–281, 282–283, 290–292, 318–319, 320–322, 324–325, 352–353, 356–357, 440–441
Number Sense and Operations Strand	
Students will understand numbers, multiple ways of representing numbers, relationships among numbers, and number systems.	
4.N.1 Skip count by 1,000's [September-April]	**TE: 8A**
4.N.2 Read and write whole numbers to 10,000 [September-April]	**SE/TE: 4–6** 10–13
4.N.3 Compare and order numbers to 10,000 [September-April]	**SE/TE: 10–13**
4.N.4 Understand the place value structure of the base ten number system: 10 ones = 1 ten; 10 tens = 1 hundred; 10 hundreds = 1 thousand; 10 thousands = 1 ten thousand [September-April]	**SE/TE: 4–6, 10–13, 16–17, 150–151, 154–155, 164–165, 174–176, 268–269** 96–97, 100–101, 114–115, 142–143, 144–145, 152–153, 166–167
4.N.5 Recognize equivalent representations for numbers up to four digits and generate them by decomposing and composing numbers [September-April]	**SE/TE: 4–6, 146–149, 150–151, 152–153, 164–165, 166–167, 168–169, 170–172, 182–183** 114–115, 174–176
4.N.6 Understand, use, and explain the associative property of multiplication [September-April]	**SE/TE: 60A, 79**
4.N.7 Develop an understanding of fractions as locations on number lines and as divisions of whole numbers [September-April]	**SE/TE: 216–218, 220–221, 238–240, 276–278, 280–281**
4.N.8 Recognize and generate equivalent fractions (halves, fourths, thirds, fifths, sixths, and tenths) using manipulatives, visual models, and illustrations [September-April]	**SE/TE: 224–226, 238–240**
4.N.9 Use concrete materials and visual models to compare and order unit fractions or fractions with the same denominator (with and without the use of a number line) [September-April]	**SE/TE: 222–223, 234–235, 236–237, 280–281**
4.N.10 Develop an understanding of decimals as part of a whole [September-April]	**SE/TE: 16–17, 268–269, 276–278, 280–281, 282–283, 290–292, 300–302**

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
4.N.11 Read and write decimals to hundredths, using money as a context [September-April]	**SE/TE: 16–17, 18–19**
4.N.12 Use concrete materials and visual models to compare and order decimals (less than 1) to the hundredths place in the context of money [September-April]	**SE/TE: 276–278**
4.N.13 Develop an understanding of the properties of odd/even numbers as a result of multiplication [September-April]	**SE/TE: 58–59, 182–183** 58–59
Students will understand meanings of operations and procedures, and how they relate to one another.	
4.N.14 Use a variety of strategies to add and subtract numbers up to 10,000 [September-April]	**SE/TE: 36–38, 40–41, 42–43**
4.N.15 Select appropriate computational and operational methods to solve problems [September-April]	**SE/TE: 76–78, 80–81, 86–88, 110–112, 116–118, 156–157, 164–165, 182–183, 186–187, 440–441** 84–85, 106–108, 114–115, 150–151, 174–176
4.N.16 Understand various meanings of multiplication and division [September-April]	**SE/TE: 54–56, 58–59, 60–61, 62–63, 64–65, 76–78, 80–81, 82–83, 84–85, 86–88, 96–97, 98–99, 100–101, 106–108, 110–112, 114–115, 116–118, 150–151, 152–153, 154–155, 156–157, 164–165, 166–167, 170–172, 174–176** 142–143, 144–145, 146–149
4.N.17 Use multiplication and division as inverse operations to solve problems [September-April]	**SE/TE: 80–81, 82–83, 84–85, 86–88, 174–176, 440–441** 170–172
4.N.18 Use a variety of strategies to multiply two-digit numbers by one-digit numbers (with and without regrouping) [September-April]	**SE/TE: 60–61, 62–63, 66–67, 80–81, 96–97, 98–99, 106–108, 110–112, 116–118, 142–143, 144–145, 146–149, 156–157**
4.N.19 Use a variety of strategies to multiply two-digit numbers by two-digit numbers (with and without regrouping) [September-April]	**SE/TE: 66–67, 142–143, 144–145, 146–149, 150–151, 152–153, 154–155, 156–157**
4.N.20 Develop fluency in multiplying and dividing multiples of 10 and 100 up to 1,000 [September-April]	**SE/TE: 66–67, 96–97, 142–143, 144–145, 146–149, 150–151, 152–153, 154–155, 164–165, 166–167**
4.N.21 Use a variety of strategies to divide two-digit dividends by one-digit divisors (with and without remainders) [September-April]	**SE/TE: 76–78, 80–81, 84–85, 86–88, 164–165, 166–167, 170–172, 174–176**
4.N.22 Interpret the meaning of remainders [September-April]	**SE/TE: 168–169, 170–172, 174–176**
4.N.23 Add and subtract proper fractions with common denominators [September-April]	**SE/TE: 250–253**
4.N.24 Express decimals as an equivalent form of fractions to tenths and hundredths [September-April]	**SE/TE: 274–275**
4.N.25 Add and subtract decimals to tenths and hundredths using a hundreds chart [September-April]	**SE/TE: 296–298**
Students will compute accurately and make reasonable estimates.	
4.N.26 Round numbers less than 1,000 to the nearest tens and hundreds [September-April]	**SE/TE: 32–33, 100–101, 144–145, 146–149, 150–151, 152–153, 166–167** 98–99, 174–176, 328–330

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
4.N.27 Check reasonableness of an answer by using estimation [September-April]	**SE/TE: 36–38, 40–41, 42–43, 100–101, 114–115, 152–153, 166–167, 174–176** 110–112, 146–149, 170–172
Algebra Strand	
Students will represent and analyze algebraically a wide variety of problem-solving situations.	
4.A.1 Evaluate and express relationships using open sentences with one operation [September-April]	**SE/TE: 128–129, 130–131, 132–133**
Students will perform algebraic procedures accurately.	
4.A.2 Use the symbols <, >, =, and ≠ (with and without the use of a number line) to compare whole numbers and unit fractions and decimals (up to hundredths) [September-April]	**SE/TE: 10–13**
4.A.3 Find the value or values that will make an open sentence true, if it contains < or > [September-April]	**SE/TE: 438–439**
Students will recognize, use, and represent algebraically patterns, relations, and functions.	
4.A.4 Describe, extend, and make generalizations about numeric (+, –, x, ÷) and geometric patterns [September-April]	**SE/TE: 58–59, 128–129, 130–131, 132–133, 142–143, 164–165, 356–357** 80–81
4.A.5 Analyze a pattern or a whole-number function and state the rule, given a table or an input/output box [September-April]	**SE/TE: 128–129, 130–131, 132–133, 336–338**
Geometry Strand	
Students will use visualization and spatial reasoning to analyze characteristics and properties of geometric shapes.	
4.G.1 Identify and name polygons, recognizing that their names are related to the number of sides and angles (triangle, quadrilateral, pentagon, hexagon, and octagon) [September-April]	**SE/TE: 202–203, 204–205**
4.G.2 Identify points and line segments when drawing a plane figure [September-April]	**SE/TE: 196–197, 198–199**
4.G.3 Find perimeter of polygons by adding sides [September-April]	**SE/TE: 328–330** 116–118
4.G.4 Find the area of a rectangle by counting the number of squares needed to cover the rectangle [September-April]	**SE/TE: 318–319, 320–322, 324–325**
4.G.5 Define and identify vertices, faces, and edges of three dimensional shapes [September-April]	**SE/TE: 346–349, 350–351, 352–353**
Students will identify and justify geometric relationships, formally and informally.	
4.G.6 Draw and identify intersecting, perpendicular, and parallel lines [May-June]	**SE/TE: 196–197**
4.G.7 Identify points and rays when drawing angles [May-June]	**SE/TE: 196–197, 198–199, 200**
4.G.8 Classify angles as acute, obtuse, right, and straight [May-June]	**SE/TE: 198–199, 204–205**

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
Measurement Strand	
Students will determine what can be measured and how, using appropriate methods and formulas.	
4.M.1 Select tools and units (customary and metric) appropriate for the length being measured [September-April]	**SE/TE: 364–365, 374–375**
4.M.2 Use a ruler to measure to the nearest standard unit (whole, 1/2 and 1/4 inches, whole feet, whole yards, whole centimeters, and whole meters) [September-April]	**SE/TE: 318–319, 320–322, 328–330, 364–365**
4.M.3 Know and understand equivalent standard units of length: 12 inches = 1 foot; 3 feet = 1 yard [September-April]	**SE/TE: 370–372**
4.M.4 Select tools and units appropriate to the mass of the object being measured (grams and kilograms) [September-April]	**SE/TE: 378–379**
4.M.5 Measure mass, using grams [September-April]	**SE/TE: 378–379**
4.M.6 Select tools and units appropriate to the capacity being measured (milliliters and liters) [September-April]	**SE/TE: 364–365, 376–377**
4.M.7 Measure capacity, using milliliters and liters [September-April]	**SE/TE: 376–377**
Students will use units to give meaning to measurements.	
4.M.8 Make change, using combined coins and dollar amounts [September-April]	**SE/TE: 18–19**
4.M.9 Calculate elapsed time in hours and half hours, not crossing A.M./P.M. [September-April]	**SE/TE: 386–388**
4.M.10 Calculate elapsed time in days and weeks, using a calendar [September-April]	**TE: 386–388**
Statistics and Probability Strand	
Students will collect, organize, display, and analyze data.	
4.S.1 Design investigations to address a question from given data [May-June]	**SE/TE: 410, 418, 420**
4.S.2 Collect data using observations, surveys, and experiments and record appropriately [May-June]	**SE/TE: 402, 404**
4.S.3 Represent data using tables, bar graphs, and pictographs [September-April]	**SE/TE: 404–405, 468–469**
4.S.4 Read and interpret line graphs [September-April]	**SE/TE: 410–411**
Students will make predictions that are based upon data analysis.	
4.S.5 Develop and make predictions that are based on data [September-April]	**SE/TE: 402–403, 472–474**
4.S.6 Formulate conclusions and make predictions from graphs [September-April]	**SE/TE: 406–407, 410–411, 418–419, 420–422** 404–405

Scott Foresman-Addison Wesley enVisionMATH
to the
New York State Mathematics
Core Curriculum Learning Standards
Grade 5

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
Problem Solving Strand	
Students will build new mathematical knowledge through problem solving.	
5.PS.1 Know the difference between relevant and irrelevant information when solving problems	**SE/TE: 138–139, 188–190** 314–315, 422–423, 474–476, 478–479, 494–495
5.PS.2 Understand that some ways of representing a problem are more efficient than others	**SE/TE: 314–315** 288–289, 314–315, 382–384, 386–388, 430–431, 433–435, 436–438, 440–442, 444–445, 446–448, 454–455, 478–479, 494–495
5.PS.3 Interpret information correctly, identify the problem, and generate possible strategies and solutions	**SE/TE: 46–48, 126–127, 188–190, 422–423** 14–16, 34–36, 74–76, 84–85, 86–87, 122–123, 146–147, 270–271, 288–289, 314–315, 340–341, 366–367, 376–377, 378–379, 404–405, 422–423, 430–431, 433–435, 478–479
Students will solve problems that arise in mathematics and in other contexts.	
5.PS.4 Act out or model with manipulatives activities involving mathematical content from literature	**SE/TE: 56F, 218F**
5.PS.5 Formulate problems and solutions from everyday situations	**SE/TE: 62–63, 86–87, 170–171** 46–48, 126–127, 162–163, 188–190, 212–213, 270–271, 288–289, 386–388, 430–431, 433–435, 436–438, 440–442, 444–445, 446–448, 450–451, 454–455, 478–479, 494–495
5.PS.6 Translate from a picture/diagram to a numeric expression	**SE/TE: 74–76, 110–112** 314–315, 422–423, 494–495
5.PS.7 Represent problem situations verbally, numerically, algebraically, and/or graphically	**SE/TE: 46–48, 148–150, 152–154, 158–160, 420–421, 422–423** 4–5, 6–8, 34–36, 62–63, 84–85, 122–123, 146–147, 170–171, 226–227, 256–258, 288–289, 296–297, 340–341, 354–355, 376–377, 396–397, 414–416, 430–431, 433–435, 474–476, 486–487
5.PS.8 Select an appropriate representation of a problem	**SE/TE: 72–73, 226–227** 90–92, 288–289, 314–315, 382–384, 386–388, 404–405, 430–431, 433–435, 474–476, 486–487
5.PS.9 Understand the basic language of logic in mathematical situations (and, or, not)	**SE/TE: 380–381**
Students will apply and adapt a variety of appropriate strategies to solve problems.	
5.PS.10 Work in collaboration with others to solve problems	**SE/TE: 4B, 58B**

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
5.PS.11 Translate from a picture/diagram to a number or symbolic expression	**SE/TE: 34–36, 74–76, 110–112, 398–399, 400–401** 10–11, 90–92, 162–163, 270–271, 288–289, 314–315, 382–384, 386–388, 430–431, 433–435, 436–438, 440–442, 444–445, 446–448, 486–487, 488–490, 494–495
5.PS.12 Use trial and error and the process of elimination to solve problems	**SE/TE: 270–271**
5.PS.13 Model problems with pictures/diagrams or physical objects	**SE/TE: 34–36, 74–76, 90–92, 110–112, 162–163, 244–245, 288–289, 314–315, 340–341, 386–388, 478–479, 494–495** 382–384, 404–405, 422–423, 430–431, 433–435, 436–438, 440–442, 444–445, 446–448, 486–487, 488–490
5.PS.14 Analyze problems by observing patterns	**SE/TE: 14–16, 84–85, 122–123, 148–150, 382–384, 404–405, 494–495** 396–397
5.PS.15 Make organized lists or charts to solve numerical problems	**SE/TE: 148–150, 314–315, 396–397, 404–405** 366–367, 382–384, 430–431, 440–442, 446–448, 450–451, 494–495
Students will monitor and reflect on the process of mathematical problem solving.	
5.PS.16 Discuss with peers to understand a problem situation	**SE/TE: T4, 84B, 220B**
5.PS.17 Determine what information is needed to solve problem	**SE/TE: 138–139, 188–190** 14–16, 46–48, 126–127, 288–289, 382–384, 386–388, 422–423, 430–431, 433–435, 436–438, 440–442, 444–445, 446–448, 478–479, 494–495
5.PS.18 Determine the efficiency of different representations of a problem	**SE/TE: 67** 288–289, 382–384, 386–388, 478–479, 494–495
5.PS.19 Differentiate between valid and invalid approaches	**SE/TE: 88–89, 246–247** 376–377, 378–379, 380–381
5.PS.20 Understand valid counterexamples	**SE/TE: 224, 230**
5.PS.21 Explain the methods and reasoning behind the problem solving strategies used	**SE/TE: 270–271** 188–190, 478–479
5.PS.22 Discuss whether a solution is reasonable in the context of the original problem	**SE/TE: 88–89** 42–43, 44–45, 46–48, 86–87, 124–125, 288–289, 386–388, 478–479
5.PS.23 Verify results of a problem	**SE/TE: 88–89** 42–43, 122–123, 124–125, 130–132, 134–135, 212–213, 376–377, 378–379, 380–381, 478–479
Reasoning and Proof Strand	
Students will recognize reasoning and proof as fundamental aspects of mathematics.	
5.RP.1 Recognize that mathematical ideas can be supported, using a variety of strategies	**SE/TE: 30–32, 86–87, 280–282** 84–85, 122–123, 124–125, 288–289, 382–384, 386–388, 422–423, 478–479, 486–487, 488–490, 492–493

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
5.RP.2 Understand that mathematical statements can be supported, using models, facts, and relationships to explain their thinking	**SE/TE: 212–213** 90–92, 288–289, 296–297, 382–384, 386–388, 430–431, 433–435, 436–438, 440–442, 444–445, 446–448, 450–451, 454–455, 478–479, 488–490, 492–493
Students will make and investigate mathematical conjectures.	
5.RP.3 Investigate conjectures, using arguments and appropriate mathematical terms	**SE/TE: 212–213** 474–476, 488–490, 492–493
5.RP.4 Make and evaluate conjectures, using a variety of strategies	**SE/TE: 270–271** 474–476, 488–490, 492–493
Students will develop and evaluate mathematical arguments and proofs.	
5.RP.5 Justify general claims or conjectures, using manipulatives, models, expressions, and mathematical relationships	**SE/TE: 110–112, 264–265, 382B** 212–213, 296–297, 376–377, 378–379, 380–381, 430–431, 433–435, 436–438, 440–442, 444–445, 446–448, 450–451, 454–455, 474–476, 478–479, 486–487
5.RP.6 Develop and explain an argument verbally, numerically, and/or graphically	**SE/TE: 60, 64B** 474–476, 478–479, 486–487
5.RP.7 Verify claims other students make, using examples and counterexamples when appropriate	**SE/TE: 224B, 330B**
Students will select and use various types of reasoning and methods of proof.	
5.RP.8 Support an argument through examples/counterexamples and special cases	**SE/TE: 88–89, 212–213** 492–493
Communication Strand	
Students will organize and consolidate their mathematical thinking through communication.	
5.CM.1 Provide an organized thought process that is correct, complete, coherent, and clear	**SE/TE: 212–213** 6–8, 34–36, 74–76, 84–85, 86–87, 122–123, 124–125, 148–150, 188–190, 234–236, 288–289, 300–302, 358–360, 376–377, 398–399, 414–416, 430–431, 436–438, 474–476, 486–487
5.CM.2 Explain a rationale for strategy selection	**SE/TE: 162B, 264B**
5.CM.3 Organize and accurately label work	**SE/TE: 34, 110** 4–5, 234–236, 288–289, 300–302, 340–341, 354–355, 376–377, 378–379, 404–405, 414–416, 430–431, 440–442, 444–445, 474–476, 486–487, 488–490
Students will communicate their mathematical thinking coherently and clearly to peers, teachers, and others.	
5.CM.4 Share organized mathematical ideas through the manipulation of objects, numerical tables, drawings, pictures, charts, graphs, tables, diagrams, models, and symbols in written and verbal form	**SE/TE: 200B, 226B** 6–8, 14–16, 42–43, 74–76, 84–85, 86–87, 124–125, 146–147, 188–190, 200–202, 234–236, 256–258, 300–302, 358–360, 382–384, 396–397, 414–416, 420–421, 436–438, 474–476, 486–487
5.CM.5 Answer clarifying questions from others	**SE/TE: 152B, 322B**
Students will analyze and evaluate the mathematical thinking and strategies of others.	
5.CM.6 Understand mathematical solutions shared by other students	**SE/TE: 28B, 158B**
5.CM.7 Raise questions that elicit, extend, or challenge others' thinking	**SE/TE: 226, 228**

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
5.CM.8 Consider strategies used and solutions found by others in relation to their own work	**SE/TE: 209**
Students will use the language of mathematics to express mathematical ideas precisely.	
5.CM.9 Increase their use of mathematical vocabulary and language when communicating with others	**SE/TE: 297B, 335B** 4–5, 6–8, 34–36, 74–76, 84–85, 86–87, 124–125, 146–147, 148–150, 188–190, 200–202, 234–236, 256–258, 300–302, 358–360, 382–384, 396–397, 414–416, 446–448, 474–476, 486–487
5.CM.10 Use appropriate vocabulary when describing objects, relationships, mathematical solutions, and rationale	**SE/TE: 173B, 325B** 4–5, 34–36, 74–76, 84–85, 124–125, 146–147, 188–190, 200–202, 234–236, 256–258, 288–289, 296–297, 358–360, 376–377, 396–397, 414–416, 430–431, 433–435, 474–476, 486–487
5.CM.11 Decode and comprehend mathematical visuals and symbols to construct meaning	**SE/TE: 4–5, 200–202, 398–399** 6–8, 10–11, 34–36, 74–76, 90–92, 146–147, 204–205, 246–247, 256–258, 288–289, 300–302, 340–341, 354–355, 378–379, 396–397, 414–416, 430–431, 433–435, 436–438, 474–476, 486–487
Connections Strand	
Students will recognize and use connections among mathematical ideas.	
5.CN.1 Understand and make connections and conjectures in their everyday experiences to mathematical ideas	**SE/TE: 148B, 398B** 6–8, 34–36, 74–76, 88–89, 162–163, 188–190, 256–258, 288–289, 296–297, 354–355, 386–388, 396–397, 414–416, 430–431, 433–435, 436–438, 486–487
5.CN.2 Explore and explain the relationship between mathematical ideas	**SE/TE: 90–92, 398–399, 400–401** 4–5, 6–8, 34–36, 62–63, 84–85, 94–96, 122–123, 146–147, 170–171, 172–173, 234–236, 256–258, 288–289, 296–297, 340–341, 354–355, 376–377, 396–397, 414–416, 430–431, 474–476, 486–487
5.CN.3 Connect and apply mathematical information to solve problems	**SE/TE: 122–123, 126–127** 4–5, 34–36, 62–63, 84–85, 124–125, 148–150, 170–171, 226–227, 256–258, 288–289, 296–297, 340–341, 354–355, 376–377, 396–397, 414–416, 430–431, 433–435, 474–476, 486–487
Students will understand how mathematical ideas interconnect and build on one another to produce a coherent whole.	
5.CN.4 Understand multiple representations and how they are related	**SE/TE: 400–401** 4–5, 10–11, 244–245, 246–247, 288–289, 382–384, 386–388, 430–431, 433–435, 440–442, 454–455, 474–476, 488–490, 494–495
5.CN.5 Model situations with objects and representations and be able to draw conclusions	**SE/TE: 90–92, 162–163, 340–341, 478–479** 288–289, 382–384, 386–388, 433–435, 454–455, 474–476, 492–493, 494–495

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
Students will recognize and apply mathematics in contexts outside of mathematics.	
5.CN.6 Recognize and provide examples of the presence of mathematics in their daily lives	**SE/TE: 12–13, 126–127, 188–190, 288–289, 296–297, 386–388, 414–416, 430–431, 433–435, 436–438, 444–445, 446–448, 450–451, 454–455, 488–490**
5.CN.7 Apply mathematics to problem situations that develop outside of mathematics	**SE/TE: 486–487, 488–490**
5.CN.8 Investigate the presence of mathematics in careers and areas of interest	**SE/TE: 234–236, 264–265** 200–202
5.CN.9 Recognize and apply mathematics to other disciplines and areas of interest	**SE/TE: 9, 27, 32, 161, 237, 361** 10–11, 12–13
Representation Strand	
Students will create and use representations to organize, record, and communicate mathematical ideas.	
5.R.1 Use physical objects, drawings, charts, tables, graphs, symbols, equations, or objects created using technology as representations	**SE/TE: 34–36, 74–76, 90–92, 110–112, 162–163, 244–245, 288–289, 314–315, 340–341, 366–367, 382–384, 386–388, 396–397, 404–405, 420–421, 430–431, 433–435, 444–445, 446–448, 454–455, 478–479, 494–495** 14–16, 148–150, 300–302, 376–377, 378–379, 380–381, 398–399, 400–401, 436–438, 440–442, 474–476, 486–487, 488–490
5.R.2 Explain, describe, and defend mathematical ideas using representations	**SE/TE: 246–247** 90–92, 244–245, 288–289, 314–315, 340–341, 366–367, 376–377, 378–379, 380–381, 382–384, 386–388, 430–431, 433–435, 436–438, 440–442, 444–445, 446–448, 454–455, 474–476, 478–479, 486–487, 488–490, 492–493, 494–495
5.R.3 Read, interpret, and extend external models	**SE/TE: 376–377, 412–413** 296–297, 298–299, 474–476, 478–479, 486–487, 488–490, 494–495
5.R.4 Use standard and nonstandard representations with accuracy and detail	**SE/TE: 398–399** 288–289, 296–297, 298–299, 376–377, 378–379, 380–381, 382–384, 386–388, 414–416, 420–421, 430–431, 433–435, 436–438, 440–442, 444–445, 446–448, 454–455, 478–479, 486–487, 488–490, 494–495
Students will select, apply, and translate among mathematical representations to solve problems.	
5.R.5 Use representations to explore problem situations	**SE/TE: 162–163** 90–92, 146–147, 288–289, 300–302, 340–341, 366–367, 376–377, 378–379, 380–381, 398–399, 414–416, 430–431, 433–435, 436–438, 440–442, 444–445, 446–448, 474–476, 486–487, 488–490
5.R.6 Investigate relationships between different representations and their impact on a given problem	**SE/TE: 400–401** 288–289, 314–315, 382–384, 386–388, 420–421, 430–431, 474–476, 488–490
Students will use representations to model and interpret physical, social, and mathematical phenomena.	
5.R.7 Use mathematics to show and understand physical phenomena (e.g., determine the perimeter of a bulletin board)	**SE/TE: 300–302, 304–305, 310–312, 328–329** 6–8, 188–190, 296–297, 298–299, 314–315, 414–416, 474–476, 478–479

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
5.R.8 Use mathematics to show and understand social phenomena (e.g., construct tables to organize data showing book sales)	**SE/TE: 362–363, 364–365, 366–367** 88–89, 148–150, 188–190, 396–397, 404–405, 430–431, 433–435, 436–438, 440–442, 444–445, 446–448, 454–455, 494–495
5.R.9 Use mathematics to show and understand mathematical phenomena (e.g., fi nd the missing value that makes the equation true: (3 + 4) + 5 = 3 + (4 + ___))	**SE/TE: 223, 376–377, 378–379** 12–13, 14–16, 106–108, 228–229, 380–381, 420–421, 446–448, 486–487, 488–490, 492–493
Number Sense and Operations Strand	
Students will understand numbers, multiple ways of representing numbers, relationships among numbers, and number systems.	
5.N.1 Read and write whole numbers to millions [September-April]	**SE/TE: 4–5, 6–8**
5.N.2 Compare and order numbers to millions [September-April]	**SE/TE: 6–8**
5.N.3 Understand the place value structure of the base ten number system: 10 ones = 1 ten; 10 tens = 1 hundred; 10 hundreds = 1 thousand; 10 thousands = 1 ten thousand; 10 ten thousands = 1 hundred thousand; 10 hundred thousands = 1 million [September-April]	**SE/TE: 4–5, 6–8**
5.N.4 Create equivalent fractions, given a fraction [September-April]	**SE/TE: 228–229** 256–258, 492–493
5.N.5 Compare and order fractions including unlike denominators (with and without the use of a number line) *Note: Commonly used fractions such as those that might be indicated on ruler, measuring cup, etc.* [September-April]	**SE/TE: 230–231, 244–245**
5.N.6 Understand the concept of ratio [September-April]	**SE/TE: 396–397, 398–399** 400–401
5.N.7 Express ratios in different forms [September-April]	**SE/TE: 396–397, 400–401** 398-399
5.N.8 Read, write, and order decimals to thousandths [September-April]	**SE/TE: 10–11, 12–13, 14–16**
5.N.9 Compare fractions using <, >, or = [September-April]	**SE/TE: 230–231**
5.N.10 Compare decimals using <, >, or = [September-April]	**SE/TE: 12–13** 260–261
5.N.11 Understand that percent means part of 100, and write percents as fractions and decimals [September-April]	**SE/TE: 398–399, 400–401** 446–448
5.N.12 Recognize that some numbers are only divisible by one and themselves (prime) and others have multiple divisors (composite) [September-April]	**SE/TE: 106–108**
5.N.13 Calculate multiples of a whole number and the least common multiple of two numbers [September-April]	**SE/TE: 260–261**
5.N.14 Identify the factors of a given number [September-April]	**SE/TE: 102–104**
5.N.15 Find the common factors and the greatest common factor of two numbers [September-April]	**SE/TE: 232–233, 270–271**

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
Students will understand meanings of operations and procedures, and how they relate to one another.	
5.N.16 Use a variety of strategies to multiply three-digit by three-digit numbers *Note: Multiplication by anything greater than a three-digit multiplier/multiplicand should be done using technology.* [September-April]	**SE/TE: 70–71**
5.N.17 Use a variety of strategies to divide three-digit numbers by one- and two-digit numbers *Note: Division by anything greater than a two-digit divisor should be done using technology.* [September-April]	**SE/TE: 84–85, 86–87, 90–92, 94–96, 98–100, 122–123, 124–125, 128–129, 130–132, 134–135, 136–137, 450–451**
5.N.18 Evaluate an arithmetic expression using order of operations including multiplication, division, addition, subtraction and parentheses [September-April]	**SE/TE: 152–154, 158–160**
5.N.19 Simplify fractions to lowest terms [September-April]	**SE/TE: 234–236, 256–258, 400–401** 492–493
5.N.20 Convert improper fractions to mixed numbers, and mixed numbers to improper fractions[September-April]	**SE/TE: 226–227**
5.N.21 Use a variety of strategies to add and subtract fractions with like denominators [September-April]	**SE/TE: 256–258**
5.N.22 Add and subtract mixed numbers with like denominators [September-April]	**TE: 266, 268**
5.N.23 Use a variety of strategies to add, subtract, multiply, and divide decimals to thousandths [September-April]	**SE/TE: 14–16, 42–43, 44–45, 46–48, 170–171, 172–173, 176–177, 178–179, 180–182, 186–187, 188–190**
Students will compute accurately and make reasonable estimates.	
5.N.24 Round numbers to the nearest hundredth and up to 10,000 [September-April]	**SE/TE: 62–63, 136–137**
5.N.25 Estimate sums and differences of fractions with like denominators [September-April]	**TE: 256**
5.N.26 Estimate sums, differences, products, and quotients of decimals [September-April]	**SE/TE: 42–43, 44–45, 174–175, 184–185**
5.N.27 Justify the reasonableness of answers using estimation [September-April]	**SE/TE: 42–43, 44–45, 46–48, 86–87, 88–89, 124–125, 128–129, 130–132, 136–137, 176–177** 106–108, 260–261
Algebra Strand	
Students will represent and analyze algebraically a wide variety of problem-solving situations.	
5.A.1 Define and use appropriate terminology when referring to constants, variables, and algebraic expressions [September-April]	**SE/TE: 146–147**
5.A.2 Translate simple verbal expressions into algebraic expressions [September-April]	**SE/TE: 146–147, 152–154**
Students will perform algebraic procedures accurately.	
5.A.3 Substitute assigned values into variable expressions and evaluate using order of operations [September-April]	**SE/TE: 148–150, 152–154, 158–160**
5.A.4 Solve simple one-step equations using basic whole-number facts [September-April]	**SE/TE: 34–36, 74–76, 110–112, 288–289, 376–377, 378–379, 380–381, 382–384, 386–388**

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
5.A.5 Solve and explain simple one-step equations using inverse operations involving whole numbers [September-April]	**SE/TE: 376–377, 378–379**
5.A.6 Evaluate the perimeter formula for given input values [September-April]	**SE/TE: 300–302**
Students will recognize, use, and represent algebraically patterns, relations, and functions.	
5.A.7 Create and explain patterns and algebraic relationships (e.g., 2, 4, 6, 8...) algebraically: 2*n* (doubling) [September-April]	**SE/TE: 14–16**
5.A.8 Create algebraic or geometric patterns using concrete objects or visual drawings (e.g., rotate and shade geometric shapes) [September-April]	**SE/TE: 33; TE: 470**
Geometry Strand	
Students will use visualization and spatial reasoning to analyze characteristics and properties of geometric shapes.	
5.G.1 Calculate the perimeter of regular and irregular polygons [September-April]	**SE/TE: 300–302**
Students will identify and justify geometric relationships, formally and informally.	
5.G.2 Identify pairs of similar triangles [September-April]	**TE: 472**
5.G.3 Identify the ratio of corresponding sides of similar triangles [September-April]	**TE: 472**
5.G.4 Classify quadrilaterals by properties of their angles and sides [September-April]	**SE/TE: 210–211**
5.G.5 Know that the sum of the interior angles of a quadrilateral is 360 degrees [September-April]	**SE/TE: 210–211**
5.G.6 Classify triangles by properties of their angles and sides [September-April]	**SE/TE: 208–209**
5.G.7 Know that the sum of the interior angles of a triangle is 180 degrees [September-April]	**SE/TE: 208–209**
5.G.8 Find a missing angle when given two angles of a triangle [September-April]	**SE/TE: 208–209**
5.G.9 Identify pairs of congruent triangles [September-April]	**TE: 472** SE/TE: 212–213
5.G.10 Identify corresponding parts of congruent triangles [September-April]	**TE: 472**
Students will apply transformations and symmetry to analyze problem-solving situations.	
5.G.11 Identify and draw lines of symmetry of basic geometric shapes [September-April]	**SE/TE: 474–476**
Students will apply coordinate geometry to analyze problem-solving situations.	
5.G.12 Identify and plot points in the first quadrant [May-June]	**SE/TE: 414–416, 420–421, 436–438**
5.G.13 Plot points to form basic geometric shapes (identify and classify) [May-June]	**SE/TE: 414–416**
5.G.14 Calculate perimeter of basic geometric shapes drawn on a coordinate plane (rectangles and shapes composed of rectangles having sides with integer lengths and parallel to the axes) [May-June]	**TE: 302**

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
Measurement Strand	
Students will determine what can be measured and how, using appropriate methods and formulas.	
5.M.1 Use a ruler to measure to the nearest inch, 1/2, 1/4 , and 1/8 inch [September-April]	**SE/TE: 296–297**
5.M.2 Identify customary equivalent units of length [September-April]	**SE/TE: 354–355**
5.M.3 Measure to the nearest centimeter [September-April]	**SE/TE: 298–299**
5.M.4 Identify equivalent metric units of length [September-April]	**SE/TE: 298–299**
5.M.5 Convert measurement within a given system [September-April]	**SE/TE: 354–355, 356–357**
5.M.6 Determine the tool and technique to measure with an appropriate level of precision: lengths and angles [September-April]	**SE/TE: 204–205, 296–297, 298–299**
Students will use units to give meaning to measurements.	
5.M.7 Calculate elapsed time in hours and minutes [September-April]	**SE/TE: 358–360, 362–363, 366–367**
5.M.8 Measure and draw angles using a protractor [September-April]	**SE/TE: 204–205**
Students will develop strategies for estimating measurements.	
5.M.9 Determine personal references for customary units of length (e.g., your pace is approximately 3 feet, your height is approximately 5 feet, etc.) [September-April]	**SE/TE: 296–297**
5.M.10 Determine personal references for metric units of length [September-April]	**SE/TE: 298–299**
5.M.11 Justify the reasonableness of estimates [September-April]	**SE/TE: 62–63, 124–125, 128–129, 180–182**
Statistics and Probability Strand	
Students will collect, organize, display, and analyze data.	
5.S.1 Collect and record data from a variety of sources (e.g., newspapers, magazines, polls, charts, and surveys) [September-April]	**SE/TE: 430–431**
5.S.2 Display data in a line graph to show an increase or decrease over time [September-April]	**SE/TE: 436–438**
5.S.3 Calculate the mean for a given set of data and use to describe a set of data [September-April]	**SE/TE: 450–451**
Students will make predictions that are based upon data analysis.	
5.S.4 Formulate conclusions and make predictions from graphs [September-April]	**SE/TE: 433–435, 436–438, 440–442, 444–445, 446–448, 454–455**
Students will understand and apply concepts of probability.	
5.S.5 List the possible outcomes for a single-event experiment [May-June]	**SE/TE: 486–487, 488–490**
5.S.6 Record experiment results using fractions/ratios [May-June]	**SE/TE: 488–490, 492–493**
5.S.7 Create a sample space and determine the probability of a single event, given a simple experiment (e.g., rolling a number cube) [May-June]	**SE/TE: 488–490** 492–493

Scott Foresman-Addison Wesley enVisionMATH
to the
New York State Mathematics
Core Curriculum Learning Standards
Grade 6

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
Problem Solving Strand	
Students will build new mathematical knowledge through problem solving.	
6.PS.1 Know the difference between relevant and irrelevant information when solving problems	**SE/TE: 84–86** 24–25, 186–187, 192–193, 194–195, 214–215, 290–291, 372–374, 380–381, 382–384, 390–391, 418–419, 430–433, 438–440, 442–443, 444–446, 484–486, 506–508
6.PS.2 Understand that some ways of representing a problem are more efficient than others	**SE/TE: 24, 50** 4–6, 10–12, 14–16, 178–179, 250–252, 314–315, 380–381, 382–384, 390–391, 412–413, 418–419, 430–433, 438–440, 442–443, 444–446, 466–468, 476–478, 480–482, 488–489, 500–501, 536–537
6.PS.3 Interpret information correctly, identify the problem, and generate possible strategies and solutions	**SE/TE: 24–25, 84–86, 194–195, 250–252, 390–391, 418–419** 10–12, 32–33, 36–38, 102–104, 154–155, 178–179, 186–187, 290–291, 306–307, 328–329, 361–362, 372–374, 412–413, 430–433, 459–460, 462–463, 476–478, 480–482, 484–486, 490–492
Students will solve problems that arise in mathematics and in other contexts.	
6.PS.4 Act out or model with manipulatives activities involving mathematical content from literature	**SE/TE: 177**
6.PS.5 Formulate problems and solutions from everyday situations	**SE/TE: 84, 358** 42–44, 50–52, 194–195, 390–391, 480–482, 488–489, 500–501, 502–504, 506–508, 510–511, 536–537
6.PS.6 Translate from a picture/diagram to a numeric expression	**SE/TE: 36–38, 214–215, 314–315** 46–47, 190–191, 194–195, 202–203, 344–346, 348–349, 350–351, 352–353, 354–356, 418–419, 430–433, 438–440, 442–443, 459–460
6.PS.7 Represent problem situations verbally, numerically, algebraically, and/or graphically	**SE/TE: 32–33, 50–52, 84–86, 214–215, 300–301, 314–315, 380–381, 382–384, 488–489** 10–12, 36–38, 40–41, 80–81, 110–112, 144–145, 166–168, 186–187, 202–203, 222–223, 234–236, 290–291, 302–304, 322–323, 344–346, 372–374, 400–402, 430–433, 459–460, 484–486, 490–492

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
6.PS.8 Select an appropriate representation of a problem	**SE/TE: 314–315** 36–38, 40–41, 50–52, 102–104, 110–112, 178–179, 230–232, 234–236, 238–239, 240–241, 306–307, 308–309, 390–391, 418–419, 438–440, 442–443, 444–446, 476–478, 480–482, 488–489, 498–499, 500–501
6.PS.9 Understand the basic language of logic in mathematical situations (and, or, and not)	**SE/TE: 136–137** 390–391, 444–446
Students will apply and adapt a variety of appropriate strategies to solve problems.	
6.PS.10 Work in collaboration with others to solve problems	**SE/TE: 41B, 309B**
6.PS.11 Translate from a picture/diagram to a number or symbolic expression	**SE/TE: 154–155, 314–315** 36–38, 42–44, 146–147, 190–191, 202–203, 226–228, 230–232, 234–236, 330–332, 344–346, 380–381, 382–384, 412–413, 430–433, 459–460, 462–463, 464–465, 476–478, 480–482, 494–496
6.PS.12 Use trial and error and the process of elimination to solve problems	**SE/TE: 510–511**
6.PS.13 Model problems with pictures/diagrams or physical objects	**SE/TE: 102–104, 110–112, 154–155, 202–203, 230–232, 234–236, 238–239, 240–241, 314–315, 328–329, 444–446, 466–468** 146–147, 148–149, 190–191, 226–228, 344–346, 380–381, 382–384, 390–391, 418–419, 430–433, 434–436, 444–446, 459–460, 462–463, 464–465, 476–478, 480–482, 484–486, 488–489, 494–496, 498–499
6.PS.14 Analyze problems by observing patterns	**SE/TE: 48–49, 214–215, 290–291** 322–323
6.PS.15 Make organized lists or charts to solve numerical problems	**SE/TE: 24–25, 50–52, 178–179, 322–323, 390–391, 520–522, 524–526, 536–537** 290–291, 490–492, 494–496, 498–499, 500–501
Students will monitor and reflect on the process of mathematical problem solving.	
6.PS.16 Discuss with peers to understand a problem situation	**SE/TE: 97B, 144B**
6.PS.17 Determine what information is needed to solve problems	**SE/TE: 84–86** 186–187, 192–193, 194–195, 214–215, 290–291, 314–315, 372–374, 380–381, 382–384, 390–391, 418–419, 430–433, 444–446, 462–463, 464–465, 466–468, 476–478, 484–486, 494–496, 498–499, 500–501, 502–504, 506–508, 510–511
6.PS.18 Determine the efficiency of different representations of a problem	**SE/TE: 62, 344** 380–381, 382–384, 390–391, 438–440, 442–443, 466–468, 484–486, 500–501
6.PS.19 Differentiate between valid and invalid approaches	**SE/TE: 328, 362**
6.PS.20 Understand valid counterexamples	**SE/TE: 22, 303**

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
6.PS.21 Explain the methods and reasoning behind the problem solving strategies used	**SE/TE: 42–44, 314–315, 328–329** 84–86, 166–168, 170–171, 172–173, 174–176, 194–195, 250–252, 290–291, 372–374, 390–391
6.PS.22 Discuss whether a solution is reasonable in the context of the original problem	**SE/TE: 102–104, 110–112, 314–315, 361–362** 174–176, 324–325, 330–332, 334–336, 372–374, 438–440, 442–443, 444–446
6.PS.23 Verify results of a problem	**SE/TE: 250–252, 361–362, 510–511** 136–137, 174–176, 186–187, 190–191, 242–244, 314–315, 372–374, 380–381, 382–384, 438–440, 442–443, 444–446
Reasoning and Proof Strand	
Students will recognize reasoning and proof as fundamental aspects of mathematics.	
6.RP.1 Recognize that mathematical ideas can be supported using a variety of strategies	**SE/TE: 102, 144** 42–44, 50–52, 84–86, 136–137, 192–193, 194–195, 300–301, 314–315, 354–356, 372–374, 380–381, 382–384, 390–391, 400–402, 404–406, 412–413, 418–419, 430–433, 438–440, 442–443, 444–446, 520–522
6.RP.2 Understand that mathematical statements can be supported, using models, facts, and relationships to explain their thinking	**SE/TE: 136–137** 32–33, 192–193, 300–301, 308–309, 310–312, 344–346, 372–374, 380–381, 400–402, 404–406, 430–433, 438–440, 459–460, 462–463, 476–478, 480–482, 484–486, 488–489, 498–499, 500–501
Students will make and investigate mathematical conjectures.	
6.RP.3 Investigate conjectures, using arguments and appropriate mathematical terms	**SE/TE: 125, 136** 380–381, 382–384, 484–486, 502–504
6.RP.4 Make and evaluate conjectures, using a variety of strategies	**SE/TE: 136–137** 300–301, 380–381, 382–384, 438–440, 442–443
Students will develop and evaluate mathematical arguments and proofs.	
6.RP.5 Justify general claims or conjectures, using manipulatives, models, expressions, and mathematical relationships	**SE/TE: 136–137** 380–381, 382–384, 390–391, 430–433, 444–446, 462–463, 464–465, 466–468, 476–478, 480–482, 488–489, 490–492, 494–496, 498–499, 500–501, 502–504, 506–508
6.RP.6 Develop and explain an argument verbally, numerically, algebraically, and/or graphically	**SE/TE: 79, 136, 476** 300–301, 306–307, 308–309, 310–312, 314–315, 372–374, 380–381, 382–384, 390–391, 418–419, 430–433, 438–440, 442–443, 484–486, 534–535
6.RP.7 Verify claims other students make, using examples and counterexamples when appropriate	**SE/TE: 484, 506** 136–137
Students will select and use various types of reasoning and methods of proof.	
6.RP.8 Support an argument through examples/counterexamples and special cases	**SE/TE: 136, 362** 302–304, 310–312, 380–381, 382–384, 390–391, 444–446

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
6.RP.9 Devise ways to verify results	**SE/TE: 42, 62, 66, 326** 136–137, 186–187, 190–191, 192–193, 242–244, 314–315, 372–374, 380–381, 382–384, 390–391, 430–433, 438–440, 442–443, 444–446, 459–460, 510–511
Communication Strand	
Students will organize and consolidate their mathematical thinking through communication.	
6.CM.1 Provide an organized thought process that is correct, complete, coherent, and clear	**SE/TE: 84, 154** 4–6, 32–33, 102–104, 136–137, 150–152, 166–168, 186–187, 214–215, 226–228, 262–264, 300–301, 330–332, 344–346, 372–374, 400–402, 430–433, 459–460, 480–482, 520–522
6.CM.2 Explain a rationale for strategy selection	**SE/TE: 214, 314, 328** 24–25, 136–137, 186–187, 194–195, 372–374, 390–391, 430–433
6.CM.3 Organize and accurately label work	**SE/TE: 250, 488** 4–6, 84–86, 136–137, 178–179, 186–187, 214–215, 230–232, 262–264, 314–315, 344–346, 372–374, 400–402, 430–433, 442–443, 459–460, 476–478, 480–482, 484–486, 498–499, 520–522, 524–526
Students will communicate their mathematical thinking coherently and clearly to peers, teachers, and others.	
6.CM.4 Share organized mathematical ideas through the manipulation of objects, numerical tables, drawings, pictures, charts, graphs, tables, diagrams, models, and symbols in written and verbal form	**SE/TE: 50–52** 4–6, 32–33, 84–86, 102–104, 136–137, 150–152, 166–168, 192–193, 226–228, 234–236, 262–264, 314–315, 322–323, 372–374, 400–402, 430–433, 476–478, 480–482, 520–522, 524–526
6.CM.5 Answer clarifying questions from others	**SE/TE: 128B, 224B**
Students will analyze and evaluate the mathematical thinking and strategies of others.	
6.CM.6 Understand mathematical solutions shared by other students	**SE/TE: 133B, 411B** 32–33, 36–38, 42–44
6.CM.7 Raise questions that elicit, extend, or challenge others' thinking	**SE/TE: 170B, 354**
6.CM.8 Consider strategies used and solutions found by others in relation to their own work	**SE/TE: 290B, 390B**
Students will use the language of mathematics to express mathematical ideas precisely.	
6.CM.9 Increase their use of mathematical vocabulary and language when communicating with others	**SE/TE: 265B, 375** 32–33, 34–35, 84–86, 102–104, 136–137, 150–152, 190–191, 222–223, 224–225, 226–228, 230–232, 234–236, 262–264, 300–301, 322–323, 372–374, 400–402, 430–433, 476–478, 480–482
6.CM.10 Use appropriate vocabulary when describing objects, relationships, mathematical solutions, and rationale	**SE/TE: 300–301** 32–33, 34–35, 84–86, 102–104, 136–137, 150–152, 166–168, 190–191, 226–228, 234–236, 302–304, 322–323, 344–346, 372–374, 400–402, 430–433, 459–460, 476–478, 510–511, 528–529

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
6.CM.11 Decode and comprehend mathematical visuals and symbols to construct meaning	**SE/TE: 262–264, 270–272, 314–315** 4–6, 8–9, 10–12, 32–33, 34–35, 36–38, 102–104, 150–152, 190–191, 226–228, 282–283, 300–301, 322–323, 348–349, 380–381, 400–402, 430–433, 459–460, 476–478, 480–482, 484–486
Connections Strand	
Students will recognize and use connections among mathematical ideas.	
6.CN.1 Understand and make connections and conjectures in their everyday experiences to mathematical ideas	**SE/TE: 125, 136** 36–38, 42–44, 84–86, 186–187, 210–211, 222–223, 230–232, 234–236, 238–239, 300–301, 310–312, 322–323, 324–325, 344–346, 372–374, 400–402, 430–433, 480–482, 500–501, 502–504, 506–508
6.CN.2 Explore and explain the relationship between mathematical ideas	**SE/TE: 302–304** 4–6, 34–35, 84–86, 102–104, 136–137, 144–145, 166–168, 186–187, 188–189, 202–203, 222–223, 226–228, 262–264, 306–307, 322–323, 344–346, 380–381, 404–406, 430–433, 462–463, 480–482, 520–522
6.CN.3 Connect and apply mathematical information to solve problems	**SE/TE: 382, 396** 4–6, 8–9, 36–38, 80–81, 110–112, 136–137, 144–145, 166–168, 186–187, 202–203, 222–223, 262–264, 300–301, 324–325, 344–346, 372–374, 400–402, 430–433, 459–460, 476–478, 520–522
Students will understand how mathematical ideas interconnect and build on one another to produce a coherent whole.	
6.CN.4 Understand multiple representations and how they are related	**SE/TE: 4–6, 14–16, 144–145, 146–147, 148–149, 348–349, 350–351, 352–353, 354–356** 186–187, 214–215, 302–304, 344–346, 380–381, 382–384, 390–391, 418–419, 430–433, 434–436, 438–440, 442–443, 444–446, 466–468, 484–486, 500–501, 520–522
6.CN.5 Model situations with objects and representations and be able to draw conclusions	**SE/TE: 314–315, 444–446, 466–468** 10–12, 24–25, 144–145, 154–155, 226–228, 344–346, 380–381, 382–384, 390–391, 418–419, 430–433, 434–436, 459–460, 462–463, 464–465, 484–486, 488–489, 520–522, 524–526
Students will recognize and apply mathematics in contexts outside of mathematics.	
6.CN.6 Recognize and provide examples of the presence of mathematics in their daily lives	**SE/TE: 310, 322, 400** 32–33, 84–86, 186–187, 190–191, 194–195, 300–301, 308–309, 314–315, 380–381, 382–384, 390–391, 404–406, 412–413, 418–419, 434–436, 438–440, 442–443, 510–511
6.CN.7 Apply mathematics to problem situations that develop outside of mathematics	**SE/TE: 237, 305** 186–187, 190–191, 308–309, 372–374, 390–391, 418–419, 434–436
6.CN.8 Investigate the presence of mathematics in careers and areas of interest	**SE/TE: 45, 154, 247**

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
6.CN.9 Recognize and apply mathematics to other disciplines and areas of interest	**SE/TE: 305, 403** 172–173, 222–223, 224–225, 230–232, 334–336
Representation Strand	
Students will create and use representations to organize, record, and communicate mathematical ideas.	
6.R.1 Use physical objects, drawings, charts, tables, graphs, symbols, equations, or objects created using technology as representations	**SE/TE: 50–52, 102–104, 110–112, 154–155, 178–179, 202–203, 238–239, 240–241, 290–291, 314–315, 322–323, 326–327, 390–391, 412–413, 444–446, 466–468** 42–44, 46–47, 148–149, 188–189, 190–191, 222–223, 226–228, 230–232, 306–307, 328–329, 372–374, 400–402, 430–433, 434–436, 438–440, 442–443, 459–460, 476–478, 480–482, 484–486, 488–489
6.R.2 Explain, describe, and defend mathematical ideas using representations	**SE/TE: 476, 480** 4–6, 10–12, 14–16, 192–193, 230–232, 234–236, 314–315, 344–346, 372–374, 380–381, 400–402, 404–406, 430–433, 459–460, 462–463, 484–486, 488–489, 494–496
6.R.3 Read, interpret, and extend external models	**SE/TE: 98, 222** 190–191, 192–193, 194–195, 314–315, 372–374, 380–381, 382–384, 390–391, 400–402, 404–406, 418–419, 430–433, 434–436
6.R.4 Use standard and nonstandard representations with accuracy and detail	**SE/TE: 344, 466, 494** 186–187, 188–189, 190–191, 192–193, 194–195, 230–232, 234–236, 238–239, 240–241, 302–304, 314–315, 372–374, 380–381, 382–384, 390–391, 400–402, 404–406, 412–413, 418–419, 430–433, 434–436, 462–463, 464–465, 476–478, 498–499
Students will select, apply, and translate among mathematical representations to solve problems.	
6.R.5 Use representations to explore problem situations	**SE/TE: 202–203, 290–291, 418–419** 4–6, 32–33, 146–147, 170–171, 190–191, 222–223, 238–239, 314–315, 328–329, 344–346, 348–349, 372–374, 380–381, 430–433, 434–436, 459–460, 462–463, 476–478, 480–482, 484–486
6.R.6 Investigate relationships between different representations and their impact on a given problem	**SE/TE: 62, 67** 4–6, 14–16, 194–195, 348–349, 380–381, 382–384, 390–391, 430–433, 444–446
Students will use representations to model and interpret physical, social, and mathematical phenomena.	
6.R.7 Use mathematics to show and understand physical phenomena (e.g., determine the perimeter of a bulletin board)	**SE/TE: 426, 430** 32–33, 190–191, 192–193, 194–195, 214–215, 310–312, 314–315, 330–332, 380–381, 382–384, 390–391, 434–436, 438–440, 442–443, 444–446, 459–460
6.R.8 Use mathematics to show and understand social phenomena (e.g., construct tables to organize data showing book sales)	**SE/TE: 57, 178** 10–12, 24–25, 50–52, 84–86, 186–187, 322–323, 334–336, 352–353, 354–356, 358–360, 372–374, 390–391, 476–478, 480–482, 484–486, 488–489, 494–496, 498–499, 500–501

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
6.R.9 Use mathematics to show and understand mathematical phenomena (e.g., Find the missing value: (3 + 4) + 5 = 3 + (4 + ___))	**SE/TE: 40–41** 50–52, 188–189, 192–193, 310–312, 344–346, 348–349, 380–381, 382–384, 390–391, 400–402, 404–406, 412–413, 430–433, 444–446, 462–463, 464–465, 510–511, 520–522, 524–526, 528–529, 536–537
Number Sense and Operations Strand	
Students will understand numbers, multiple ways of representing numbers, relationships among numbers, and number systems.	
6.N.1 Read and write whole numbers to trillions [September-April]	**SE/TE: 4–6, 8–9, 10–12**
6.N.2 Define and identify the commutative and associative properties of addition and multiplication [September-April]	**SE/TE: 34–35** 42–44
6.N.3 Define and identify the distributive property of multiplication over addition [September-April]	**SE/TE: 40–41, 42–44** 192–193
6.N.4 Define and identify the identity and inverse properties of addition and multiplication [September-April]	**SE/TE: 34–35, 242–244**
6.N.5 Define and identify the zero property of multiplication [September-April]	**SE/TE: 34; TE: 12, 239**
6.N.6 Understand the concept of rate [September-April]	**SE/TE: 306–307, 308–309, 310–312, 324–325**
6.N.7 Express equivalent ratios as a proportion [September-April]	**SE/TE: 302–304, 322–323, 324–325, 326–327, 330–332, 334–336** 344–346
6.N.8 Distinguish the difference between rate and ratio [September-April]	**SE/TE: 306–307, 308–309, 310–312** 314–315
6.N.9 Solve proportions using equivalent fractions [September-April]	**SE/TE: 322–323, 324–325, 344–346, 348–349, 502–504** 354–356, 480–482
6.N.10 Verify the proportionality using the product of the means equals the product of the extremes [September-April]	**SE/TE: 326–327, 330–332, 334–336, 354–356**
6.N.11 Read, write, and identify percents of a whole (0% to 100%) [September-April]	**SE/TE: 344–346, 348–349, 352–353, 354–356** 358–360, 361–362
6.N.12 Solve percent problems involving percent, rate, and base [September-April]	**SE/TE: 354–356, 358–360, 361–362, 480–482, 502–504, 506–508**
6.N.13 Define absolute value and determine the absolute value of rational numbers (including positive and negative) [September-April]	**SE/TE: 222–223, 224–225**
6.N.14 Locate rational numbers on a number line (including positive and negative) [September-April]	**SE/TE: 148–149, 154–155, 170–171, 222–223, 226–228** 150–152
6.N.15 Order rational numbers (including positive and negative) [September-April]	**SE/TE: 8–9, 22–23, 224–225, 226–228**
Students will understand meanings of operations and procedures, and how they relate to one another.	
6.N.16 Add and subtract fractions with unlike denominators [September-April]	**SE/TE: 166–168**
6.N.17 Multiply and divide fractions with unlike denominators [September-April]	**SE/TE: 186–187, 190–191, 206–207, 214–215**

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
6.N.18 Add, subtract, multiply, and divide mixed numbers with unlike denominators [September-April]	**SE/TE: 172–173, 174–176, 192–193, 194–195, 210–211, 212–213, 214–215**
6.N.19 Identify the multiplicative inverse (reciprocal) of a number [September-April]	**SE/TE: 204–205** 310–312
6.N.20 Represent fractions as terminating or repeating decimals [September-April]	**SE/TE: 146–147, 150–152, 306–307, 308–309, 348–349**
6.N.21 Find multiple representations of rational numbers (fractions, decimals, and percents 0 to 100) [September-April]	**SE/TE: 14–16, 144–145, 146–147, 148–149, 150–152, 300–301, 302–304, 306–307, 308–309, 314–315, 344–346, 348–349, 350–351, 352–353** 354–356, 358–360, 361–362
6.N.22 Evaluate numerical expressions using order of operations (may include exponents of two and three) [September-April]	**SE/TE: 36–38, 42–44, 46–47, 80–81**
6.N.23 Represent repeated multiplication in exponential form [September-April]	**SE/TE: 10–12**
6.N.24 Represent exponential form as repeated multiplication [September-April]	**SE/TE: 10, 127**
6.N.25 Evaluate expressions having exponents where the power is an exponent of one, two, or three [September-April]	**SE/TE: 10–12, 36–38, 46–47**
Students will compute accurately and make reasonable estimates.	
6.N.26 Estimate a percent of quantity (0% to 100%) [September-April]	**SE/TE: 352–353, 354–356, 358–360**
6.N.27 Justify the reasonableness of answers using estimation (including rounding) [September-April]	**SE/TE: 102–104, 110–112, 170–171, 188–189, 208–209, 324–325, 330–332** 326–327, 334–336
Algebra Strand	
Students will represent and analyze algebraically a wide variety of problem-solving situations.	
6.A.1 Translate two-step verbal expressions into algebraic expressions [September-April]	**SE/TE: 32–33, 46–47, 50–52**
Students will perform algebraic procedures accurately.	
6.A.2 Use substitution to evaluate algebraic expressions (may include exponents of one, two, and three) [September-April] for 2 variables in expression]	**SE/TE: 46–47, 192–193, 210–211, 238–239, 240–241, 380–381, 382–384**
6.A.3 Translate two-step verbal sentences into algebraic equations [September-April]	**SE/TE: 310–312**
6.A.4 Solve and explain two-step equations involving whole numbers using inverse operations [September-April]	**SE/TE: 372–374**
6.A.5 Solve simple proportions within context [September-April]	**SE/TE: 322–323, 324–325, 326–327, 330–332, 334–336, 344–346**
6.A.6 Evaluate formulas for given input values (circumference, area, volume, distance, temperature, interest, etc.) [September-April]	**SE/TE: 310–312, 382–384, 430–433, 434–436, 438–440, 442–443, 459–460, 462–463, 464–465**
Geometry Strand	
Students will use visualization and spatial reasoning to analyze characteristics and properties of geometric shapes.	
6.G.1 Calculate the length of corresponding sides of similar triangles, using proportional reasoning [September-April]	**SE/TE: 330–332**

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
6.G.2 Determine the area of triangles and quadrilaterals (squares, rectangles, rhombi, and trapezoids) and develop formulas [September-April]	**SE/TE: 194–195, 430–433, 434–436, 459–460, 466–468**
6.G.3 Use a variety of strategies to find the area of regular and irregular polygons [September-April]	**SE/TE: 430–433, 434–436**
6.G.4 Determine the volume of rectangular prisms by counting cubes and develop the formula [September-April]	**SE/TE: 462–463, 466–468**
6.G.5 Identify radius, diameter, chords, and central angles of a circle [September-April]	**SE/TE: 282–283, 438–440**
6.G.6 Understand the relationship between the diameter and radius of a circle [September-April]	**SE/TE: 282–283, 438–440**
6.G.7 Determine the area and circumference of a circle, using the appropriate formula [September-April]	**SE/TE: 438–440, 442–443**
6.G.8 Calculate the area of a sector of a circle, given the measure of a central angle and the radius of the circle [September-April]	**SE/TE: 282, 480**
6.G.9 Understand the relationship between the circumference and the diameter of a circle [September-April]	**SE/TE: 438–440, 442–443**
Students will apply coordinate geometry to analyze problem-solving situations.	
6.G.10 Identify and plot points in all four quadrants [September-April]	**SE/TE: 246–248, 380–381, 382–384**
6.G.11 Calculate the area of basic polygons drawn on a coordinate plane (rectangles and shapes composed of rectangles having sides with integer lengths) [September-April]	**TE: 124–125**
Measurement Strand	
Students will determine what can be measured and how, using appropriate methods and formulas.	
6.M.1 Measure capacity and calculate volume of a rectangular prism [September-April]	**SE/TE: 462–463**
6.M.2 Identify customary units of capacity (cups, pints, quarts, and gallons) [September-April]	**SE/TE: 400–402**
6.M.3 Identify equivalent customary units of capacity (cups to pints, pints to quarts, and quarts to gallons) [September-April]	**SE/TE: 400–402, 412–413**
6.M.4 Identify metric units of capacity (liter and milliliter) [September-April]	**SE/TE: 404–406**
6.M.5 Identify equivalent metric units of capacity (milliliter to liter and liter to milliliter) [September-April]	**SE/TE: 404–406, 412–413**
6.M.6 Determine the tool and technique to measure with an appropriate level of precision: capacity [September-April]	**SE/TE: 400, 404** 401–402, 405–406
Students will develop strategies for estimating measurements.	
6.M.7 Estimate volume, area, and circumference (see figures identified in geometry strand) [September-April]	**SE/TE: 434, 438–440, 442–443, 462, 466**
6.M.8 Justify the reasonableness of estimates [September-April]	**SE/TE: 63, 68, 326, 442–443**
6.M.9 Determine personal references for capacity [September-April]	**SE/TE: 366, 405**

New York State Mathematics Core Curriculum Learning Standards	Scott Foresman – Addison Wesley enVisionMATH
Statistics and Probability Strand	
Students will collect, organize, display, and analyze data.	
6.S.1 Develop the concept of sampling when collecting data from a population and decide the best method to collect data for a particular question [May-June]	**SE/TE: 502–504, 506–508**
6.S.2 Record data in a frequency table [May-June]	**SE/TE: 494–496**
6.S.3 Construct Venn diagrams to sort data [May-June]	**SE/TE: 123, 127, 204**
6.S.4 Determine and justify the most appropriate graph to display a given set of data (pictograph, bar graph, line graph, histogram, or circle graph) [May-June]	**SE/TE: 476–478, 484–486, 488–489, 500–501**
6.S.5 Determine the mean, mode, and median for a given set of data [September-April]	**SE/TE: 490–492, 498–499, 500–501**
6.S.6 Determine the range for a given set of data [September-April]	**SE/TE: 490–492, 498–499**
6.S.7 Read and interpret graphs [September-April]	**SE/TE: 476–478, 480–482, 484–486, 494–496, 498–499** 348–349, 488–489
Students will make predictions that are based upon data analysis.	
6.S.8 Justify predictions made from data [September-April]	**SE/TE: 454–457, 476, 487, 530**
Students will understand and apply concepts of probability.	
6.S.9 List possible outcomes for compound events [September-April]	**SE/TE: 520–522, 524–526, 536–537**
6.S.10 Determine the probability of dependent events [September-April]	**SE/TE: 528–529, 530–532, 534–535**
6.S.11 Determine the number of possible outcomes for a compound event by using the fundamental counting principle and use this to determine the probabilities of events when the outcomes have equal probability [September-April]	**SE/TE: 520–522, 524–526**