

A Correlation of

SCOTT FORESMAN • ADDISON WESLEY

Mathematics

and

**Math Diagnosis and
Intervention System**

to the

**Lansing School District
Math Content Benchmarks
and Pacing Guide Statements**

Grades K-5



G/M-213

Introduction

This document demonstrates the high degree of success students will achieve when using **Scott Foresman – Addison Wesley Mathematics and Math Diagnosis and Intervention System** in meeting the Lansing Math Content Benchmarks and Pacing Guide Statements. Correlation references are to the **Scott Foresman – Addison Wesley Mathematics** Teacher's Edition pages, which contain facsimile Student Edition pages and to the **Math Diagnosis and Intervention System** Intervention Lesson and Intervention Practice number.

Scott Foresman – Addison Wesley Mathematics was carefully developed to reflect the specific needs of students and teachers at every grade level, while maintaining an overall primary goal: to have math make sense from every perspective. This program is based on scientific research that describes how children learn mathematics well and on classroom-based evidence that validates proven reliability.

- **Reaching All Learners**

Scott Foresman – Addison Wesley Mathematics addresses the needs of every student through structured instruction that makes concepts easier for students to grasp. Lessons provide step-by-step examples that show students how to think about and solve the problem. Built-in leveled practice in every lesson allows the teacher to customize instruction to match students' abilities. Reaching All Learners, featured in the Teacher Edition, helps teachers meet the diverse needs of the classroom with fun and stimulating activities that are easy to incorporate directly into the lesson plan.

- **Test Prep**

Scott Foresman - Addison Wesley Mathematics builds understanding through connections to prior knowledge, math strands, other subjects and the real world. It provides practice for maximum results and offers assessment in a variety of ways. Besides carefully placed reviews at the end of each Section, an important Test Prep strand runs throughout the program. Writing exercises prepare students for open-ended and short-or extended-response questions on state and national tests. Spiral review in a test format help students keep their test-taking skills sharp.

- **Priority on problem solving:**

Problem-solving instruction is systematic and explicit. Reading connections help children with problem-solving skills and strategies for math. Reading for Math Success encourages students to use the reading skills and strategies they already know to solve math problems.

- **Instructional Support**

In the Teacher Edition, the Lesson Planner provides an easy, at-a-glance planning tool. It identifies objectives, math understandings, focus questions, vocabulary, and resources for each lesson in the chapter. Professional Development at the beginning of each chapter in the Teacher Edition includes a Skills Trace as well as Math Background and Teaching Tips for each section in the chapter.

Math Diagnosis and Intervention System contains a Teaching Guide and Diagnostic Tests. Booklets of blackline masters with intervention lessons and intervention practice are organized by strand and are for students at any level of mathematical proficiency. This system is ideal for use in summer school, after-school programs, or regular classes.

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**Scott Foresman – Addison Wesley Mathematics
and Math Diagnosis and Intervention System
to the
Lansing Math Content Benchmarks and Pacing Guide Statements
Kindergarten**

STRAND I. PATTERNS, RELATIONSHIPS AND FUNCTIONS

Standard 1: Patterns – Students recognize similarities and generalize patterns, use patterns to create models and make predictions, describe the nature of patterns and relationships, and construct representations of mathematical relationships.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Recognize, describe and extend simple patterns (e.g., count orally by ones and tens to 100 or more using a hundred chart or other concrete materials; use building blocks).	35A-35B, 35-36, 37A-37B, 37-38, 39A-39B, 39-40, 41A-41B, 41-42, 43A-43B, 43-44, 45A-45B, 45-46	D1
Sort, classify, and order concrete objects by attributes (e.g., size and number).	11A-11B, 11-12, 13A-13B, 13-14, 15A-15B, 15-16, 17A-17B, 17-18	D42
Identify patterns found inside and outside the classroom.	35A-35B, 35-36, 37A-37B, 37-38, 39A-39B, 39-40, 41A-41B, 41-42, 43A-43B, 43-44, 45A-45B, 45-46	D1

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Build patterns and structures that grow, shrink, or repeat (e.g., pile of snowballs, creating a staircase with blocks, create a pine tree with triangles)	45A-45B, 45-46	D1
Create, extend, and copy sequences of sounds (e.g., musical notes), objects (e.g., buttons, leaves, blocks), motions (e.g., hops, skips), and events (e.g., calendar).	35A-35B, 35-36, 37A-37B, 37-38, 39A-39B, 39-40, 41A-41B, 41-42, 43A-43B, 43-44, 45A-45B, 45-46, 167A-167B, 167-168, 169A-169B, 169-170	D1, D2

Standard 2: Variability and Change – Students describe the relationship among variables, predict what will happen to one variable as another variable is changed, analyze natural variation and sources of variability, and compare patterns of change.

No Kindergarten Benchmarks for Standard 2

STRAND II. GEOMETRY AND MEASUREMENT

Standard 1: Shape and Shape Relationships – Students develop spatial sense, use shape as an analytic and descriptive tool, identify characteristics and define shapes, identify properties and describe relationships among shapes.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Identify three-dimensional objects inside and outside the classroom and describe their likenesses and differences (e.g., ball/sphere, box/cube, soup can/cylinder, cone, box/prism, and pyramid).	197A-197B, 197-198, 199A-199B, 199-200, 201A-201B, 201-202	D43
Identify and describe attributes of three-dimensional objects.	197A-197B, 197-198, 199A-199B, 199-200, 201A-201B, 201-202	D43
Sort three-dimensional objects.	197-198, 199-200, 201-202	D43
Put together and take apart two-dimensional shapes and three-dimensional objects.	201A-201B, 201-202	D43
Recognize three-dimensional objects in their environment.	197A-197B, 199A-199B, 199-200	D43

Standard 2: Position – Students identify locations of objects, identify location relative to other objects, and describe the effects of transformations (e.g., sliding, flipping, turning, enlarging, reducing) on an object.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Name and demonstrate the relative position of objects (e.g., front or back, right or left, in or out, over or under, up or down, above or below, next to or between, top, bottom, or middle).	3A-3B, 3-4, 5A-5B, 5-6, 7A-7B, 7-8, 9A-9B, 9-10	D42
Recognize symmetry in everyday objects.	211A-211B, 211-212	D43

Standard 3: Measurement – Students compare attributes of two objects, or of one object with a standard (unit), and analyze situations to determine what measurement(s) should be made and to what level of precision.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Compare and order objects of different lengths, areas, weights, and capacities and use relative terms such as longer, shorter, same, bigger, smaller, heavier, lighter, more, less, full, and empty.	133A-133B, 133-134, 135A-135B, 135-136, 137A-137B, 137-138, 145A-145B, 145-146, 147A-147B, 147-148, 149A-149B, 149-150	D20

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Identify units of time (day, week) and compare calendar elements (e.g., weeks are longer than days, yesterday, today, tomorrow, morning, afternoon, night, the days of the week).	161A-161B, 161-162, 163A-163B, 163-164, 165A-165B, 165-166, 167A-167B, 167-168, 171A-171B, 171-172, 173A-173B, 173-174, 175A-175B, 175-176, 177A-177B, 177-178	D2
Use non-standard units to measure length, weight, capacity, and time.	139A-139B, 139-140, 141A-141B, 141-142, 151A-151B, 151-152, 153A-153B, 153-154	D20

STRAND III. DATA ANALYSIS AND STATISTICS

Standard 1: Collection, Organization and Presentation of Data – Students collect and explore data, organize data into a useful form, and develop skill in representing and reading data displayed in different formats.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Gather and sort data in response to questions posed by teacher and students (e.g., how many brother and sisters, what color shoes).	27A-27B, 27-28, 29A-29B, 29-30, 31A-31B, 31-32, 33A-33B, 33-34	D1
Arrange objects in a floor (concrete) or data (pictorial) graph according to attributes such as size, use, color, and shape.	27A-27B, 27-28, 29A-29B, 29-30, 31A-31B, 31-32, 33A-33B, 33-34	D1

Standard 2: Description and Interpretation – Students examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Select the category or categories that have the most or fewest objects in a floor or object graph.	27A-27B, 27-28	D1
Conduct surveys to solve problems and answer questions of interest to them.	33A-33B, 33-34	D1

Standard 3: Inference and Prediction – Students draw defensible inferences about unknown outcomes, make predictions, and identify the degree of confidence they have in their predictions.

No Kindergarten Benchmarks for Standard 3

STRAND IV. NUMBER SENSE AND NUMERATION

Standard 1: Concepts and Properties of Numbers – Students experience counting and measuring activities to develop intuitive sense about numbers, develop understanding about properties of numbers, understand the need for the existence of different sets of numbers, and investigate properties of special numbers.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Explain rules of counting (e.g., each object should be counted once, order does not change the number, last number stated identifies the total).	53A-53B, 53-54, 57A-57B, 57-58, 77A-77B, 77-78, 79A-79B, 79-80, 83A-83B, 83-84, 103A-103B, 103-104, 115A-115B, 115-116, 289A-289B, 289-290, 291A-291B, 291-292	A1, A2, A3, A4
Connect number words (verbal) and numerals to the quantities they represent using various physical models and representations including symbols (0-9).	55A-55B, 55-56, 59A-59B, 59-60, 61A-61B, 61-62, 81A-81B, 81-82, 85A-85B, 85-86	A1, A2
Copy and extend sequences of numbers from 1 to 10.	287A-287B, 287-288, 293A-293B, 293-294, 295A-295B, 295-296	A4
Model story evens by recording, illustrating the appropriate number of objects. Tell the number of objects.	245A-245B, 245-246	B2

Standard 2: Representation and Uses of Numbers – Students recognize that numbers are used in different ways such as counting, measuring, ordering and estimating, understand and produce multiple representations of a number, and translate among equivalent representations.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Represent and use whole numbers in flexible ways, including relating, composing, and decomposing numbers (e.g., 5 marbles can be 2 red and 3 green or 1 red and 4 green)	225A-225B, 225-226, 227A-227B, 227-228, 229A-229B, 229-230, 231A-231B, 231-232, 235A-235B, 235-236, 237A-237B, 237-238	B1
Construct multiple sets of objects each containing the same number or objects.	225A-225B, 225-226, 227A-227B, 227-228, 229A-229B, 229-230, 231A-231B, 231-232	B1

Standard 3: Number Relationships – Students investigate relationships such as equality, inequality, inverses, factors and multiples, and represent and compare very large and very small numbers.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Compare and order whole numbers up to 10.	63A-63B, 63-64, 65A-65B, 65-66, 87A-87B, 87-88, 89A-89B, 89-90, 91A-91B, 91-92	A1, A2
Use 1-to-1 correspondence and language (e.g., “more than,” “same as,” “two less,” “not enough,” “just right”) to describe relative sizes of sets of concrete objects.	235A-235B, 235-236, 237A-237B, 237-238	B1

STRAND V: NUMERICAL AND ALGEBRAIC OPERATIONS AND ANALYTICAL THINKING

Standard 1: Operations and their Properties - Students understand and use various types of operations (e.g., addition, subtraction, multiplication, division) to solve problems.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Combine and separate small sets of objects in contextual situations (e.g., increase or decrease a set by one or two).	245A-245B, 245-246, 247A-247B, 247-248, 265A-265B, 265-266, 267A-267B, 267-268	B2, B3
Partition or share a small set of objects into groups of equal size (e.g., sharing 6 stickers with 3 children)	265A-265B, 265-266, 267A-267B, 267-268, 269A-269B, 269-270	B3

Standard 2: Algebraic and Analytic Thinking – Students analyze problems to determine an appropriate process for solution, and use algebraic notations to model or represent problems.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Model problem situations using physical materials.	27-28, 29-30, 31-32, 33-34, 53-54, 57-58, 77-78, 79-80, 83-84, 103-104, 125-126, 217-218, 247-248, 267-268, 291-292	A1, A2, A3, A4, B2, B3, D1, D43

STRAND VI: PROBABILITY AND DISCRETE MATHEMATICS

Standard 1: Probability – Students develop an understanding of the notion of certainty and of probability as a measure of the degree of likelihood that can be assigned to a given event based on the knowledge available, and make critical judgments about claims that are made in probabilistic situations.

No Kindergarten Benchmarks for Standard 3

Standard 2: Discrete Mathematics – Students investigate practical situations such as scheduling, routing, sequencing, networking, organizing and classifying, and analyze ideas like recurrence relations, induction, iteration, and algorithm design.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Sort a set by a given attribute or by their rule and explain.	11A-11B, 11-12, 13A-13B, 13-14, 15A-15B, 15-16, 17A-17B, 17-18	D42
Sequence events/steps.	169A-169B, 169-170	D2

**Scott Foresman – Addison Wesley Mathematics
and Math Diagnosis and Intervention System
to the
Lansing Math Content Benchmarks and Pacing Guide Statements**

Grade One

STRAND I. PATTERNS, RELATIONSHIPS AND FUNCTIONS

Standard 1: Patterns – Students recognize similarities and generalize patterns, use patterns to create models and make predictions, describe the nature of patterns and relationships, and construct representations of mathematical relationships.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Recognize, describe, and extend repeating and growing patterns with materials, pictures, and geometric items (e.g., count by fives to 100 or more, by twos to 20 or more, and backward from 10; use pattern blocks).	3A-3B, 3-4, 5A-5B, 5-6	D44
Create and record similar patterns using different objects.	3A-3B, 3-4, 5A-5B, 5-6	D44
Extend, create, and record patterns and translate patterns from one form to another (e.g., concrete objects to actions or symbols).	3A-3B, 3-4, 5A-5B, 5-6, 255A-255B, 255-256, 257A-257B, 257-258, 261A-261B, 261-262	A14, A15, D44, E32

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Describe and analyze patterns with multiple attributes.	3A-3B, 3-4, 5A-5B, 5-6, 255A-255B, 255-256, 257A-257B, 257-258, 261A-261B, 261-262	A14, A15, D44, E32
Use simple numerical patterns to solve problems.	255A-255B, 255-256, 257A-257B, 257-258, 261A-261B, 261-262	A14, A15, E32

Standard 2: Variability and Change – Students describe the relationship among variables, predict what will happen to one variable as another variable is changed, analyze natural variation and sources of variability, and compare patterns of change.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Describe qualitative change (e.g., longer, smaller, heavier).	365A-365B, 365-366, 383A-383B, 383-384, 389A-389B, 389-390	D21, D24, D27
Describe quantitative change (e.g., a numerical change such as a student growing two inches in a one year).	261A-261B, 261-262	E32
Describe the variability in a pattern of change (e.g., grows faster or slower).	255A-255B, 255-256, 257A-257B, 257-258, 261A-261B, 261-262	A14, A15, E32

STRAND II. GEOMETRY AND MEASUREMENT

Standard 1: Shape and Shape Relationships – Students develop spatial sense, use shape as an analytic and descriptive tool, identify characteristics and define shapes, identify properties and describe relationships among shapes.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Identify two-dimensional shapes inside and outside the classroom and describe their likenesses and differences (e.g., circle, square, rectangle, triangle, rhombus, trapezoid, hexagon, and oval/ellipse).	165A-165B, 165-166, 167A-167B, 167-168	D49, D50
Identify and describe attributes of two-dimensional shapes.	165A-165B, 165-166, 167A-167B, 167-168	D49, D50
Compare and sort two-dimensional shapes.	165A-165B, 165-166, 167A-167B, 167-168, 169A-169B, 169-170	D49, D50, D51
Copy figures (e.g., using geoboards, pegboards, dot paper)	165B, 166	D49
Sketch/cut simple two-dimensional shapes.	165B, 166	D49
Predict the results of putting together and taking apart two-dimensional shapes and three-dimensional objects.	161A-161B, 161-162	D47, D48

Standard 2: Position – Students identify locations of objects, identify location relative to other objects, and describe the effects of transformations (e.g., sliding, flipping, turning, enlarging, reducing) on an object.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Model and use directional and positional words to place objects and/or describe the position of objects (e.g., over, to the left of, next to, between).	173A-173B, 173-174	D53
Recognize a line of symmetry in objects in their environment.	171A-171B, 171-172	D52

Standard 3: Measurement – Students compare attributes of two objects, or of one object with a standard (unit), and analyze situations to determine what measurement(s) should be made and to what level of precision.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Estimate and measure length and weight using non-standard units of measure	365A-365B, 365-366, 383A-383B, 383-384, 389A-389B, 389-390	D21, D24, D27
Tell time to the nearest hour using digital and analog clocks.	205A-205B, 205-206, 207A-207B, 207-208, 209A-209B, 209-210, 211A-211B, 211-212	D3, D4, D5, D6
Name and identify the values of coins (penny, nickel, dime, quarter) dollar bills.	331A-331B, 331-332, 333A-33B, 333-334, 343A-343B, 343-344, 347A-347B, 347-348	A33, A34, A36, A37

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Using non-standard units estimate and measure length, weight, capacity, and time.	221A-221B, 221-222, 365A-365B, 365-366, 383A-383B, 383-384, 389A-389B, 389-390	D7, D21, D24, D27

STRAND III. DATA ANALYSIS AND STATISTICS

Standard 1: Collection, Organization and Presentation of Data – Students collect and explore data, organize data into a useful form, and develop skill in representing and reading data displayed in different formats.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Identify multiple categories for collecting and sorting data.	307A-307B, 307-308, 309A-309B, 309-310, 311A-311B, 311-312, 313A-313B, 313-314	D65, D66, D67
Collect and organize data into charts using tally marks.	313A-313B, 313-314	D67
Display data in picture graphs with units of a one and bar graphs with intervals of one.	309A-309B, 309-310, 311A-311B, 311-312	D65, D66

Standard 2: Description and Interpretation – Students examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Read and interpret charts, picture charts, and bar graphs as sources of information to identify and quantify main ideas (e.g., category with most, how many more in a category compared to another, how many together in two categories).	307A-307B, 307-308, 309A-309B, 309-310, 311A-311B, 311-312, 313A-313B, 313-314	D65, D66, D67
Draw conclusions and answer question using information organized in graphs.	309A-309B, 309-310, 311A-311B, 311-312	D65, D66
Conduct surveys, samplings, and experiments to solve problems and answer questions of interest to them.	313A-313B, 313-314	D67

Standard 3: Inference and Prediction – Students draw defensible inference about unknown outcomes, make predictions, and identify the degree of confidence they have in their predictions.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Construct a question and answer it by the collection of data.	313A-313B, 313-314	D67
Make predictions based on experiences.	403A-403B, 403-404	D69

STRAND IV. NUMBER SENSE AND NUMERATION

Standard 1: Concepts and Properties of Numbers – Students experience counting and measuring activities to develop intuitive sense about numbers, develop understanding about properties of numbers, understand the need for the existence of different sets of numbers, and investigate properties of special numbers.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Read, write, compare and order numbers to 100.	11A-11B, 11-12, 13A-13B, 13-14, 15A-15B, 15-16, 17A-17B, 17-18, 29A-29B, 29-30, 31A-31B, 31-32, 241A-241B, 241-242	A5, A6, A10
Count forward to 100 and backwards from 100 starting at any number between 1 and 100.	243A-243B, 243-244, 245A-245B, 245-246	A11

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Represent commonly used fractions using words and physical models for halves, thirds, and fourths, and recognize that fractions are represented by equal size parts of a whole and of a set of objects.	181A-181B, 181-182, 183A-183B, 183-184, 185A-185B, 185-186, 187A-187B, 187-188, 189A-189B, 189-190	A59, A60, A61, A62
Read or write one- or two-digit numerals, relating it to a set of objects or a pictorial representation.	11A-11B, 11-12, 13A-13B, 13-14, 15A-15B, 15-16, 17A-17B, 17-18, 29A-29B, 29-30, 31A-31B, 31-32, 241A-241B, 241-242	A5, A6, A10
Identify patterns and groupings in a 100s chart and relate to place value concepts.	247A-247B, 247-248, 249A-249B, 249-250, 255A-255B, 255-256, 257A-257B, 257-258, 261A-261B, 261-262	A12, A13, A14, A15, E32
Sort objects into groups of 10s and 1s and write the numeral representing the set.	247A-247B, 247-248, 249A-249B, 249-250	A11
Understand the special properties of 0 and 1 in addition and subtraction.	25A-25B, 25-26, 27A-27B, 27-28, 51A-51B, 51-52, 67A-67B, 67-68	A7, B8, B13

Standard 2: Representation and Uses of Numbers – Students recognize that numbers are used in different ways such as counting, measuring, ordering and estimating, understand and produce multiple representations of a number, and translate among equivalent representations.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Represent whole numbers and fractional parts (halves) using words, numerals, and physical models.	11A-11B, 11-12, 13A-13B, 13-14, 15A-15B, 15-16, 17A-17B, 17-18, 29A-29B, 29-30, 31A-31B, 31-32, 181A-181B, 181-182, 183A-183B, 183-184, 185A-185B, 185-186, 187A-187B, 187-188, 189A-189B, 189-190, 241A-241B, 241-242	A5, A6, A10, A59, A60, A61, A62
Consider a number in relation to other numbers by regarding it as a sum or difference of them.	25A-25B, 25-26, 27A-27B, 27-28	A7
Use ordinal numbers to order objects (e.g., first, second, third).	267A-267B, 267-268	A18

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
<p>Select appropriate numbers and representations in order to solve problems.</p>	<p>7A-7B, 7-8, 21A-21B, 21-22, 33A-33B, 33-34, 57A-57B, 57-58, 71A-71B, 71-72, 79A-79B, 79-80, 99A-99B, 99-100, 111A-111B, 111-112, 113-113B, 113-114, 133A-133B, 133-134, 143A-143B, 143-144, 145A-145B, 145-146, 177A-177B, 177-178, 191A-191B, 191-192, 193A-193B, 193-194, 215A-215B, 215-216, 223A-223B, 223-224, 229A-229B, 229-230, 251A-251B, 251-252, 261A-261B, 261-262, 269A-269B, 269-270, 291A-291B, 291-292, 317A-317B, 317-318, 319A-319B, 319-320, 339A-339B, 339-340, 351A-351B, 351-352, 353A-353B, 353-354, 369A-369B, 369-370, 379A-379B, 379-380, 405A-405B, 405-406, 431A-431B, 431-432, 445A-445B, 445-446, 447A-447B, 447-448, 467A-467B, 467-468, 481A-481B, 481-482, 483A-483B, 483-484</p>	<p>E1, E2, E3, E4, E8, E10, E14, E21, E23, E25, E27, E29, E30, E32, E34, E36, E38, E40</p>

Standard 3: Number Relationships – Students investigate relationships such as equality, inequality, inverses, factors and multiples, and represent and compare very large and very small numbers.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Compose and decompose whole numbers.	11A-11B, 11-12, 13A-13B, 13-14, 15A-15B, 15-16, 17A-17B, 17-18	A5, A6

STRAND V: NUMERICAL AND ALGEBRAIC OPERATIONS AND ANALYTICAL THINKING

Standard 1: Operations and their Properties - Students understand and use various types of operations (e.g., addition, subtraction, multiplication, division) to solve problems.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Model, explain and record addition and subtraction using physical materials in contextual situations.	45A-45B, 45-46, 47A-47B, 47-48, 61A-61B, 61-62, 63A-63B, 63-64, 75A-75B, 75-76	B4, B5, B10, B11, B15
Develop strategies for basic addition facts (e.g., counting all, counting on, one more or two more).	91A-91B, 91-92, 93A-93B, 93-94, 95A-95B, 95-96, 97A-97B, 97-98, 99A-99B, 99-100, 103A-103B, 103-104B, 105A-105B, 105-106, 107A-107B, 107-108	B16, B17, B18, B19, B21, B22, B23
Develop strategies for basic subtraction facts (e.g., relating to addition, one less or two less, all but one, using ten frames, missing addends).	125A-125B, 125-126, 127A-127B, 127-128, 129A-129B, 129-130, 137A-137B, 137-138, 139A-139B, 139-140, 141A-141B, 141-142	B24, B25, B26, B27, B28, B29

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Develop concepts of equivalence that support strategies for addition (e.g., changing the order in addition or breaking apart and regrouping does not change the value of the sum).	93A-93B, 93-94	B18

Standard 2: Algebraic and Analytic Thinking – Students analyze problems to determine an appropriate process for solution, and use algebraic notations to model or represent problems.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Write a story to fit a number sentence.	45A-45B, 45-46, 61A-61B, 61-62	B4, B10
Recognize and represent relations using mathematical symbols.	49A-49B, 49-50, 65A-65B, 65-66	B6, B7, B13
Complete addition/subtraction fact families.	137-138, 139A-139B, 139-140, 141A-141B, 141-142	B27, B28, B29
Describe and model problem situations using words, objects, or number phrases or sentences.	11-12, 13-14, 15-16, 17-18, 25-26, 27-28, 47-48, 63-64, 75-76, 97-98, 125-126, 245-246, 291-292, 309-310, 311-312, 313-314, 431-432, 481-482	A5, A6, A11, B11, B15, B20, D65, D66, D67, E25, E27, E29

STRAND VI: PROBABILITY AND DISCRETE MATHEMATICS

Standard 1: Probability – Students develop an understanding of the notion of certainty and of probability as a measure of the degree of likelihood that can be assigned to a given event based on the knowledge available, and make critical judgments about claims that are made in probabilistic situations.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Use language such as “always,” “maybe,” and “never” as they relate to an event.	401A-401B, 401-402, 403A-403B, 403-404	D69

Standard 2: Discrete Mathematics – Students investigate practical situations such as scheduling, routing, sequencing, networking, organizing and classifying, and analyze ideas like recurrence relations, induction, iteration, and algorithm design.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Sort a set of objects in more than one way.	157A-157B, 157-158, 165A-165B, 165-166	D45, D49

**Scott Foresman – Addison Wesley Mathematics
and Math Diagnosis and Intervention System
to the
Lansing Math Content Benchmarks and Pacing Guide Statements**

Grade Two

STRAND I. PATTERNS, RELATIONSHIPS AND FUNCTIONS

Standard 1: Patterns – Students recognize similarities and generalize patterns, use patterns to create models and make predictions, describe the nature of patterns and relationships, and construct representations of mathematical relationships.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Use patterns to make generalizations and predictions (e.g., determining a missing element or the next element).	99A-99B, 99-100, 413A-413B, 413-414, 467A-467B, 467-468	A14, B54, E32
Describe and extend repeating and growing patterns (e.g., count by twos, fives, tens, 25s, and 50s beyond 100 and backward from 20 by various amounts; use geometric shapes).	99A-99B, 99-100, 413A-413B, 413-414, 467A-467B, 467-468	A14, B54, E32
Create patterns and represent them in more than one way.	99A-99B, 99-100, 413A-413B, 413-414, 467A-467B, 467-468	A14, B54, E32
Describe patterns found inside and outside the classroom.	413A-413B, 413-414	E32

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Create growing and shrinking numeric and geometric patterns.	99A-99B, 99-100, 413A-413B, 413-414, 467A-467B, 467-468	A14, B54, E32
Solve problems using number patterns (e.g., things that come in threes).	413A-413B, 413-414	E32

Standard 2: Variability and Change – Students describe the relationship among variables, predict what will happen to one variable as another variable is changed, analyze natural variation and sources of variability, and compare patterns of change.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Complete a simple Input-Output table and describe the pattern of change in the Output column (e.g., one or two more than, +10)	Preparation: 99A-99B, 99-100, 413A-413B, 413-414, 467A-467B, 467-468	Preparation: A14, B54, E32

STRAND II. GEOMETRY AND MEASUREMENT

Standard 1: Shape and Shape Relationships – Students develop spatial sense, use shape as an analytic and descriptive tool, identify characteristics and define shapes, identify properties and describe relationships among shapes.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Describe two-dimensional shapes and three-dimensional objects using attributes (e.g., number of sides, number of corners or angles (vertices), straight or curved).	247A-247B, 247-248, 249A-249B, 249-250, 255A-255B, 255-256	D54, D55, D56
Compare and sort three-dimensional objects according to the shape of the faces or the number of faces, edges or vertices (e.g., cubes, spheres, prisms, cones, cylinders, pyramids).	247A-247B, 247-248, 249A-249B, 249-250	D54, D55
Build common three-dimensional models (e.g., gumdrops and toothpicks, clay and straws).	247A-247B, 249A-249B	D54, D55
Identify two-dimensional faces of three-dimensional objects.	249A-249B, 249-250	D55
Recognize two-dimensional shapes and three-dimensional objects in their environment.	247A-247B, 247-248, 249A-249B, 249-250, 255A-255B, 255-256	D54, D55, D56

Standard 2: Position – Students identify locations of objects, identify location relative to other objects, and describe the effects of transformations (e.g., sliding, flipping, turning, enlarging, reducing) on an object.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Locate and describe position of numbers/objects (e.g., points on the number line, using a hundreds chart, read and construct simple timelines to sequence events).	97A-97B, 97-98, 99A-99B, 99-100	A14, A16
Identify lines of symmetry in two-dimensional shapes (e.g., mirrors, paper folding, paint blots, and other concrete materials).	261A-261B, 261-262	E38

Standard 3: Measurement – Students compare attributes of two objects, or of one object with a standard (unit), and analyze situations to determine what measurement(s) should be made and to what level of precision.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Tell time to the nearest hour and half-hour using digital and analog clocks.	291A-291B, 291-292, 293A-293B, 293-294, 295A-295B, 295-296	D11, D12, D13
Count money and make change, using coins up to \$1.00.	119A-119B, 119-120	A44
Recognize and explain the need for standard units and tools for measuring length.	343A-343B, 343-344, 345A-345B, 345-346, 347A-347B, 347-348	D22, D30, D31

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Make and test predictions about measurements using different non-standard units to measure the same length or capacity.	341A-341B, 341-342, 353A-353B, 353-354	D21, D24
Write, solve, and verify solutions to one-step problems involving measurement (e.g., length, time, money).	343A-343B, 343-344, 345A-345B, 345-346, 347A-347B, 347-348, 355A-355B, 355-356, 357A-357B, 357-358, 365A-365B, 365-366, 367A-367B, 367-368, 369A-369B, 369-370	D9, D22, D25, D26, D28, D30, D31, D41

STRAND III. DATA ANALYSIS AND STATISTICS

Standard 1: Collection, Organization and Presentation of Data – Students collect and explore data, organize data into a useful form, and develop skill in representing and reading data displayed in different formats.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Pose questions, use observations, interviews, and surveys to collect data.	313A-313B, 313-314	D67
Organize data in charts/tables, picture graphs and bar graphs.	311A-311B, 311-312, 319A-319B, 319-320, 321A-321B, 321-322, 323A-323B, 323-324	D65, D66, D71, E25

Standard 2: Description and Interpretation – Students examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Read, interpret, and make comparisons from data represented in charts, line plots, picture graphs, and bar graphs.	319A-319B, 319-320, 321A-321B, 321-322, 323A-323B, 323-324	D65, D66, D71
Describe and compare categories of data represented in a chart or graph and make statements about the data as a whole.	319A-319B, 319-320, 321A-321B, 321-322, 323A-323B, 323-324	D65, D66, D71
Identify untrue or inappropriate statements about a given data set.	319A-319B, 319-320, 321A-321B, 321-322, 323A-323B, 323-324	D65, D66, D71
Recognize that data may vary from one population to another (e.g., favorite TV shows of students and parents).	313A-313B, 313-314	D67

Standard 3: Inference and Prediction – Students draw defensible inference about unknown outcomes, make predictions, and identify the degree of confidence they have in their predictions.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Conduct surveys to solve problems and answer questions of interest to them.	313A-313B, 313-314	D67
Describe and compare categories of data represented in a chart or graph and make statements about the data as a whole.	319A-319B, 319-320, 321A-321B, 321-322, 323A-323B, 323-324	D65, D66, D71

STRAND IV. NUMBER SENSE AND NUMERATION

Standard 1: Concepts and Properties of Numbers – Students experience counting and measuring activities to develop intuitive sense about numbers, develop understanding about properties of numbers, understand the need for the existence of different sets of numbers, and investigate properties of special numbers.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Read, write, compare, and order numbers to 1000.	81A-81B, 81-82, 83A-83B, 83-84, 85A-85B, 85-86, 91A-91B, 91-92, 395A-395B, 395-396, 399A-399B, 399-400, 409A-409B, 409-410	A12, A20, A27, A31, A47, A48, A49, A51, A52

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Use place value concepts to represent, compare, and order whole numbers using physical models, numerals, and words, with ones, tens and hundreds.	81A-81B, 81-82, 83A-83B, 83-84, 85A-85B, 85-86, 91A-91B, 91-92, 391A-391B, 391-392, 393A-393B, 393-394, 395A-395B, 395-396, 399A-399B, 399-400, 409A-409B, 409-410	A12, A20, A27, A31, A45, A46, A47, A48, A49, A51, A52
Use 0 to represent the number of elements in the empty set or as a placeholder in numerals.	81A-81B, 81-82, 83A-83B, 83-84, 85A-85B, 85-86, 91A-91B, 91-92, 395A-395B, 395-396, 399A-399B, 399-400, 409A-409B, 409-410	A12, A20, A27, A31, A47, A48, A49, A51, A52

Standard 2: Representation and Uses of Numbers – Students recognize that numbers are used in different ways such as counting, measuring, ordering and estimating, understand and produce multiple representations of a number, and translate among equivalent representations.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Construct models to represent three-digit numbers (e.g., 243 as two hundred forty-three, 24 tens and 3 ones, 2 hundreds and 43 ones).	391A-391B, 391-392	A45
Represent fractions (halves, fourths, and thirds) using words, numerals, and physical models.	269A-269B, 269-270, 271A-271B, 271-272, 273A-273B, 273-274, 275A-275B, 275-276, 277A-277B, 277-278	A59, A61, A62, A63, A64
Identify and generate equivalent forms of whole numbers.	81A-81B, 81-82, 83A-83B, 83-84, 85A-85B, 85-86	A12, A20, A31

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Investigate ways numbers are used (e.g., counting, ordering, naming, locating, measuring).	81A-81B, 81-82, 83A-83B, 83-84, 85A-85B, 85-86, 91A-91B, 91-92, 391A-391B, 391-392, 393A-393B, 393-394, 395A-395B, 395-396, 399A-399B, 399-400, 409A-409B, 409-410	A12, A20, A27, A31, A45, A46, A47, A48, A49, A51, A52
Develop strategies for estimating quantity and evaluate the reasonableness of their estimates.	191A-191B, 191-192, 229A-229B, 229-230	C10, C19

Standard 3: Number Relationships – Students investigate relationships such as equality, inequality, inverses, factors and multiples, and represent and compare very large and very small numbers.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Compare and order numbers using “equal,” “less than” or “greater than.”	91A-91B, 91-92, 399A-399B, 399-400, 409A-409B, 409-410	A27, A51, A52
Explore, develop, and understand the part-whole relationship of number (e.g., possible arrangements of a given number).	391A-391B, 391-392	A45
Generalize ways to determine odd or even.	101A-101B, 101-102	A17
Apply their understanding of whole number relationships in solving problems.	91A-91B, 91-92, 399A-399B, 399-400, 409A-409B, 409-410	A27, A51, A52

STRAND V: NUMERICAL AND ALGEBRAIC OPERATIONS AND ANALYTICAL THINKING

Standard 1: Operations and their Properties - Students understand and use various types of operations (e.g., addition, subtraction, multiplication, division) to solve problems.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Model, represent, explain, and record subtraction (e.g., comparison, take-away, part-to-whole).	13A-13B, 13-14, 15A-15B, 15-16, 17A-17B, 17-18	B43, B44, B45
Demonstrate multiple strategies for adding and subtracting 2- or 3- digit whole numbers.	175A-175B, 175-176, 177A-177B, 177-178, 179A-179B, 179-180, 181A-181B, 181-182, 211A-211B, 211-212, 213A-213B, 213-214, 215A-215B, 215-216, 217A-217B, 217-218, 433A-433B, 433-434, 435A-435B, 435-436, 449A-449B, 449-450, 451A-451B, 451-452	C13, C14, C15, C16, C21, C22, C23, C32, C33, C37, C38
Develop strategies for basic addition facts (e.g., doubles, doubles plus or minus one, make ten, adding zero).	43A-43B, 43-44, 45A-45B, 45-46, 47A-47B, 47-48, 49A-49B, 49-50, 51A-51B, 51-52, 53A-53B, 53-54, 57A-57B, 57-58	B30, B31, B33, B35, B36, B48, B49
Develop strategies for basic subtraction facts (e.g., relating to addition, one less or two less, all but one, using ten frames, missing addends).	61A-61B, 61-62, 63A-63B, 63-64, 65A-65B, 65-66	B50, B51
Add and subtract multiples of 10.	141A-141B, 141-142, 149A-149B, 149-150	C9, C10

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Apply operations efficiently and accurately in solving problems.	175A-175B, 175-176, 177A-177B, 177-178, 179A-179B, 179-180, 181A-181B, 181-182, 211A-211B, 211-212, 213A-213B, 213-214, 215A-215B, 215-216, 217A-217B, 217-218, 433A-433B, 433-434, 435A-435B, 435-436, 449A-449B, 449-450, 451A-451B, 451-452	C13, C14, C15, C16, C21, C22, C23, C32, C33, C37, C38

Standard 2: Algebraic and Analytic Thinking – Students analyze problems to determine an appropriate process for solution, and use algebraic notations to model or represent problems.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Use symbols to represent unknown quantities and identify values for symbols in an expression or equation using addition and subtraction (e.g., $\square + \nabla = 10$, $\diamond - 2 = 4$).	99A-99B, 99-100, 413A-413B, 413-414, 467A-467B, 467-468	A14, B54, E32
Use concrete, pictorial, and verbal representations to develop an understanding of invented and conventional symbolic notation (e.g., one picture represents five units, a geometric shape represents one value).	99A-99B, 99-100, 413A-413B, 413-414, 467A-467B, 467-468	A14, B54, E32

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Use objects, pictures, numbers, and other symbols to represent problems situations.	9A-9B, 9-10, 19A-19B, 57A-57B, 57-58, 67A-67B, 67-68, 89A-89B, 89-90, 105A-105B, 105-106, 155A-155B, 155-156, 161A-161B, 161-162, 189A-189B, 189-190, 197A-197B, 197-198, 221A-221B, 221-222, 233A-233B, 233-234, 251A-251B, 251-252, 265A-265B, 265-266, 311A-311B, 311-312, 327A-327B, 327-328, 351A-351B, 351-352, 377A-377B, 377-378, 405A-405B, 405-406, 413A-413B, 413-414, 439A-439B, 439-440, 453A-453B, 453-454, 479A-479B, 479-480, 487A-487B, 487-488	E1, E2, E3, E4, E6, E8, E10, E14, E21, E23, E25, E27, E30, E34, E36, E38

STRAND VI: PROBABILITY AND DISCRETE MATHEMATICS

Standard 1: Probability – Students develop an understanding of the notion of certainty and of probability as a measure of the degree of likelihood that can be assigned to a given event based on the knowledge available, and make critical judgments about claims that are made in probabilistic situations.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Describe the likelihood of simple events as “possible/impossible” and “more likely/less likely” (e.g., use spinners or numbers cubes in classroom activities, chance of rain, likelihood of swimming today).	373A-373B, 373-374, 375A-375B, 375-376	D69, D72

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Conduct simple probability experiments, discuss possibilities, make predications, and compare results with expected outcomes.	373A-373B, 373-374, 375A-375B, 375-376	D69, D72

Standard 2: Discrete Mathematics – Students investigate practical situations such as scheduling, routing, sequencing, networking, organizing and classifying, and analyze ideas like recurrence relations, induction, iteration, and algorithm design.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Sort and classify objects by their attributes as a means to explore sets and set relationships (e.g., Venn diagrams, charts).	315A-315B, 315-316	D70
Make a one-difference train using attribute material.	327A-327B, 327-328	E2
Construct and compare their recording procedures for basic operations.	175A-175B, 175-176, 177A-177B, 177-178, 179A-179B, 179-180, 181A-181B, 181-182, 211A-211B, 211-212, 213A-213B, 213-214, 215A-215B, 215-216, 217A-217B, 217-218, 433A-433B, 433-434, 435A-435B, 435-436, 449A-449B, 449-450, 451A-451B, 451-452	C13, C14, C15, C16, C21, C22, C23, C32, C33, C37, C38

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
<p>Describe and use multiple solutions to a problem.</p>	<p>9A-9B, 9-10, 19A-19B, 57A-57B, 57-58, 67A-67B, 67-68, 89A-89B, 89-90, 105A-105B, 105-106, 155A-155B, 155-156, 161A-161B, 161-162, 189A-189B, 189-190, 197A-197B, 197-198, 221A-221B, 221-222, 233A-233B, 233-234, 251A-251B, 251-252, 265A-265B, 265-266, 311A-311B, 311-312, 327A-327B, 327-328, 351A-351B, 351-352, 377A-377B, 377-378, 405A-405B, 405-406, 413A-413B, 413-414, 439A-439B, 439-440, 453A-453B, 453-454, 479A-479B, 479-480, 487A-487B, 487-488</p>	<p>E1, E2, E3, E4, E6, E8, E10, E14, E21, E23, E25, E27, E30, E34, E36, E38</p>

**Scott Foresman – Addison Wesley Mathematics
and Math Diagnosis and Intervention System
to the
Lansing Math Content Benchmarks and Pacing Guide Statements
Grade Three**

STRAND I. PATTERNS, RELATIONSHIPS AND FUNCTIONS

Standard 1: Patterns – Students recognize similarities and generalize patterns, use patterns to create models and make predictions, describe the nature of patterns and relationships, and construct representations of mathematical relationships.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Analyze and replicate arithmetic sequences (sequences based on addition and subtraction).	72A-72B, 72-75	B53
Create, describe, and extend geometric patterns (e.g., border designs and tessellations).	332A-332B, 332-335	E33
Extend patterns found inside and outside the classroom.	24-27, 277, 282, 286, 288-289, 332A-332B, 332-335, 340-341, 344-345	B68, B76, B78, C27, E33
Describe the rule for growing, shrinking, or repeating patterns (e.g., words, objects, and actions).	72A-72B, 72-75, 344A-344B, 344-345	B53, B78
Make predictions, identify relationships, and solve problems using concepts of patterns. (e.g., constant addend).	24-27, 277, 282, 286, 288-289, 332A-332B, 332-335, 340-341, 344-345	B68, B76, B78, C27, E33

Standard 2: Variability and Change – Students describe the relationship among variables, predict what will happen to one variable as another variable is changed, analyze natural variation and sources of variability, and compare patterns of change.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Describe how the quantitative change in a variable affects the value of a related variable (e.g., the number of cans of pop compared to the cost, height of a ramp compared to the distance a toy car travels).	72A-72B, 72-75, 344A-344B, 344-345	B53, B78
Differentiate among patterns that are repeating, growing, or shrinking.	24-27, 277, 282, 286, 288-289, 332A-332B, 332-335, 340-341, 344-345	B68, B76, B78, C27, E33
Describe changes that indicate growing or shrinking (e.g., life stages of growing plant, weather, population changes).	72A-72B, 72-75, 344A-344B, 344-345	B53, B78

STRAND II. GEOMETRY AND MEASUREMENT

Standard 1: Shape and Shape Relationships – Students develop spatial sense, use shape as an analytic and descriptive tool, identify characteristics and define shapes, identify properties and describe relationships among shapes.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Identify polygons (of a most 8 sides) and describe their likenesses and differences.	446A-446B, 446-447, 450A-450B, 450-453, 454A-454B, 454-455, 456A-456B, 456-459	D60, D61, D62, D63
Analyze and describe properties of two-dimensional shapes and three-dimensional objects using terms such as vertex, edge, angle, side, and face.	428A-428B, 428-4231, 446A-446B, 446-447, 450A-450B, 450-453, 454A-454B, 454-455	D58, D60, D61, D62
Compare, sort, and classify polygons and non-polygons using appropriate vocabulary (e.g., open, closed, straight, curved, sides, angles, and vertices). Describe the rules for grouping.	446A-446B, 446-447, 450A-450B, 450-453, 454A-454B, 454-455	D60, D61
Sketch common three-dimensional shapes.	428B, 432B	D58
Explore two-dimensional geometric patterns (nets) that fold to make three-dimensional objects.	432A-432B, 432-435	D58

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Describe the results of subdividing and combining (e.g., subdividing a hexagon into triangles or trapezoids).	460A-460B, 460-461	D64
Identify and describe a three-dimensional object from different perspectives.	428A-428B, 428-431, 432A-432B, 432-435	D58
Create patterns/shapes inside a predetermined amount of space using manipulatives (e.g., tangrams, pattern blocks, cut apart an empty cereal box).	332A-332B, 332-335	E33

Standard 2: Position – Students identify locations of objects, identify location relative to other objects, and describe the effects of transformations (e.g., sliding, flipping, turning, enlarging, reducing) on an object.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Find and name locations on a labeled grid or coordinate system.	218A-218B, 218-221, 222A-222B, 222-223	D76, D77
Locate and describe objects in terms of their orientation, direction, and relative position (e.g., up, down, front, back, N-S-E-W).	218A-218B, 218-221	D76
Find and name locations on a labeled grid or coordinate system.	218A-218B, 218-221, 222A-222B, 222-223	D76, D77

Standard 3: Measurement – Students compare attributes of two objects, or of one object with a standard (unit), and analyze situations to determine what measurement(s) should be made and to what level of precision.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Identify, select, and record appropriate units of measure for length (cm, m, in, ft, yd, miles, kilometers), capacity (liter, cup, pints, quart, gallons), weight (ounces, pounds, grams, kilograms), and time (hours, half-hours, quarter-hours or minutes and a.m. or p.m.).	192A-192B, 192-195, 196A-196B, 196-197, 198A-198B, 198-199, 200A-200B, 200-201, 532A-532B, 532-533, 534A-534B, 534-535, 536A-536B, 536-537, 538A-538B, 538-539, 582A-582B, 582-583, 584A-584B, 584-587, 680A-680B, 680-683, 684A-684B, 684-687, 690A-690B, 690-693, 694A-694B, 694-695	D12, D13, D14, D18, D35, D36, D37, D38, D39, D40, D41
Identify and record appropriate units for temperature (Fahrenheit or Celsius).	696A-696B, 696-697	D19
Tell time to the nearest minute on digital to the nearest five-minute interval on analog timepieces.	192A-192B, 192-195, 196A-196B, 196-197	D12, D13
Count money and make change using coins and bills up to \$5.00.	36A-36B, 36-39, 40A-40B, 40-41	A41, A44
Select the appropriate tool and unit of measurement for length, mass (weight), and capacity.	532A-532B, 532-533, 534A-534B, 534-535, 536A-536B, 536-537, 538A-538B, 538-539, 582A-582B, 582-583, 584A-584B, 584-587, 680A-680B, 680-683, 684A-684B, 684-687, 690A-690B, 690-693, 694A-694B, 694-695	D35, D36, D37, D38, D39, D40, D41

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Count combinations of coins and bills and write the amount in dollar and cent notation.	36A-36B, 36-39, 40A-40B, 40-41	A41, A44
Establish personal or common referents for units of measure to make estimates and comparisons (e.g., the width of a finger is a centimeter, a large bottle of soda pop is two liters, a small paper clip weights about one gram).	534A-534B, 534-535	D35
Make estimates for perimeter and area using links, tiles, and other models (arrays) and compare the estimate to the actual measurements.	464A-464B, 464-467	D33
Estimate costs up to \$5.00.	40A-40B, 40-41	A44

STRAND III. DATA ANALYSIS AND STATISTICS

Standard 1: Collection, Organization and Presentation of Data – Students collect and explore data, organize data into a useful form, and develop skill in representing and reading data displayed in different formats.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Collect and organize data from an experiment (e.g., recording and classifying observations or measurements in response to a question posed).	204A-204B, 204-207, 208A-208B, 208-211	D71, D74, D75
Construct and interpret graphs where symbols or scales represent multiple units.	208A-208B, 208-211, 212A-212B, 212-215, 222A-222B, 222-223	D71, D74, D75, D77
Identify what data are needed to answer a particular question or solve a given problem and design and implement strategies to obtain, organize, and present those data in a graphical format.	226A-226B, 226-227, 228A-228B, 228-231, 232A-232B, 232-235	D74, D75, D77

Standard 2: Description and Interpretation – Students examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Read and interpret data displayed in a circle graph and answer questions about the situation.	Related material: 212A-212B, 212-215	Related material: D74, D75
Identify maximum and minimum and use the information to compare related data sets.	208A-208B, 208-211	D71
Support a conclusion or prediction using information in a table or graph.	208A-208B, 208-211, 212A-212B, 212-215, 222A-222B, 222-223	D71, D74, D75, D77
Formulate questions and problems and gather and interpret data to answer those questions.	208A-208B, 208-211, 212A-212B, 212-215, 222A-222B, 222-223	D71, D74, D75, D77

Standard 3: Inference and Prediction – Students draw defensible inference about unknown outcomes, make predictions, and identify the degree of confidence they have in their predictions.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Make and test hypotheses.	700A-700B, 700-701	D78
Conduct surveys, samplings, and experiments to solve problems and answer questions of interest to them.	204A-204B, 204-207, 208A-208B, 208-211	D71, D74, D75

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Make and explain predications based on data.	232A-232B, 232-235	D77
Make predictions to answer questions and solve problems.	700A-700B, 700-701	D78

STRAND IV. NUMBER SENSE AND NUMERATION

Standard 1: Concepts and Properties of Numbers – Students experience counting and measuring activities to develop intuitive sense about numbers, develop understanding about properties of numbers, understand the need for the existence of different sets of numbers, and investigate properties of special numbers.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Read, write, order, and determine place value in 4-digit numbers.	10A-10B, 10-11	A55
Recognize that a fractional part can mean different amounts depending on the original quantity.	498A-498B, 498-501, 502A-502B, 502-503	A66, A67
Identify the whole for fractions.	498A-498B, 498-501	A66
Use place value concepts to represent whole numbers and decimals (tenths and hundredths) using numerals, words, expanded notation, and physical models.	4A-4B, 4-5, 6A-6B, 6-7, 8A-8B, 8-9, 10A-10B, 10-11, 12A-12B, 12-13, 564A-564B, 564-565, 566A-566B, 566-567	A47, A53, A54, A55, A56, A74, A75
Understand the special properties of 0 and 1 in multiplication and division.	286A-286B, 286-287	B67

Standard 2: Representation and Uses of Numbers – Students recognize that numbers are used in different ways such as counting, measuring, ordering and estimating, understand and produce multiple representations of a number, and translate among equivalent representations.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Represent fractions (halves, thirds, fourths, and tenths) using words, numerals, and physical models.	498A-498B, 498-501, 502A-502B, 502-503, 504A-504B, 504-505, 506A-506B, 506-509, 510A-510B, 510-511, 512A-512B, 512-513	A65, A66, A67, A68, A69
Represent decimals (tenths) using words, numeral, and physical models.	564A-564B, 564-565, 566A-566B, 566-567	A74, A75
Recognize that the equal sign(=) means both sides are of the same value (e.g., $6 \times 2 = 4 \times 3$)	76A-76B, 76-77	E37

Standard 3: Number Relationships – Students investigate relationships such as equality, inequality, inverses, factors and multiples, and represent and compare very large and very small numbers.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Compare and order numbers using the symbols for “equal,” “less than,” or “greater than.”	18A-18B, 18-21, 22A-22B, 22-23, 506A-506B, 506-509, 568A-568B, 568-571	A57, A69, A76

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Given a pair of whole numbers, fractions, or decimals decide which is larger or smaller by using objects or pictures.	18A-18B, 18-21, 506A-506B, 506-509, 568A-568B, 568-571	A57, A69, A76
Model fractions and mixed numbers using regions and sets and describe the relationships of parts to whole.	498A-498B, 498-501, 502A-502B, 502-503, 504A-504B, 504-505, 506A-506B, 506-509, 510A-510B, 510-511, 512A-512B, 512-513, 522A-522B, 522-527	A65, A66, A67, A68, A69, A73
Express a given whole number as the product of two other whole numbers.	276A-276B, 276-279, 280A-280B, 280-281, 282A-282B, 282-283	B64, B65, B66

STRAND V: NUMERICAL AND ALGEBRAIC OPERATIONS AND ANALYTICAL THINKING

Standard 1: Operations and their Properties - Students understand and use various types of operations (e.g., addition, subtraction, multiplication, division) to solve problems.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Model, represent, explain, and record multiplication in a variety of ways (e.g., repeated addition, rectangular arrays, area model, skip counting).	260A-260B, 260-261, 262A-262B, 262-265, 266A-266B, 266-269	B55, B62, B63

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Model, represent, explain, and record division in a variety of ways (e.g., sharing equally, repeated subtraction, rectangular arrays, area model) and its relationship to multiplication.	370A-370B, 370-371, 372A-372B, 372-373, 374A-374B, 374-379	B79, B80, B81
Develop and analyze algorithms for adding and subtracting multi-digit numbers and demonstrate fluency.	126A-126B, 126-127, 128A-128B, 128-131, 132A-132B, 132-135, 136A-136B, 136-139, 146A-146B, 146-147, 148A-148B, 148-149, 150A-150B, 150-151, 152A-152B, 152-155, 156A-156B, 156-157	C15, C23, C32, C34, C37, C42, C43, C44
Evaluate the reasonableness of computations.	160A-160B, 160-161	E11
Use mental computation strategies to add or subtract (e.g., 90-22)	80A-80B, 80-81, 82A-82B, 82-85, 94A-94B, 94-95, 96A-96B, 96-97	C28, C40, C41
Estimate sums and differences, beyond basic facts, and evaluate the reasonableness of the estimate (e.g., rounding, front-end estimation, doubling).	86A-86B, 86-89, 98A-98B, 98-101	C31, C36
Demonstrate strategies for basic multiplication facts.	316A-316B, 316-317, 318A-318B, 318-319, 320A-320B, 320-323, 324A-324B, 324-327, 328A-328B, 328-331	B70, B71, B72, B73, B74

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Demonstrate strategies for multiplying two- and three-digit numbers by powers of 10.	612A-612B, 612-615, 616A-616B, 616-617	C47, C48
Use a calculator to compute complex procedures.	89, 401, 571, 621, 709	B90, C31
Recognize equivalent representations for the same number and generate them by decomposing, composing, regrouping (associative), and reordering (commutative) numbers when developing strategies for computation.	504A-504B, 504-505	A68

Standard 2: Algebraic and Analytic Thinking – Students analyze problems to determine an appropriate process for solution, and use algebraic notations to model or represent problems.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Write, solve, and explain simple mathematical statements (e.g., $7 + \square > 8$ or $\nabla + 8 = 10$)	344A-344B, 344-345	B78
Write, solve, and explain multi-step story problems.	284A-284B, 284-285	E7

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Complete multiplication/division fact families.	276A-276B, 276-279, 280A-280B, 280-281, 282A-282B, 282-283, 288A-288B, 288-291, 386A-386B, 386-387, 388A-388B, 388-389, 390A-390B, 390-391, 392A-392B, 392-393	B64, B65, B66, B68, B83, B84, B85, B86, B87, B88
Model problem situations using objects, pictures, tables, numbers, letters, and other symbols.	140A-140B, 140-143, 204A-204B, 204-207, 208A-208B, 208-211, 226A-226B, 226-227, 228A-228B, 228-231, 232A-232B, 232-235, 236A-236B, 236-237, 270A-270B, 270-273	D71, D73, D74, D75, D77, E22, E26

STRAND VI: PROBABILITY AND DISCRETE MATHEMATICS

Standard 1: Probability – Students develop an understanding of the notion of certainty and of probability as a measure of the degree of likelihood that can be assigned to a given event based on the knowledge available, and make critical judgments about claims that are made in probabilistic situations.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
List possible outcomes of a simple experiment and predict whether given outcomes are more, less, or equally likely to occur.	700A-700B, 700-701, 702A-702B, 702-703, 704A-704B, 704-707	D78, D79, D80
Record the possible outcomes for a simple probability event.	700A-700B, 700-701, 704A-704B, 704-707	D78, D79

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Conduct a simple experiment or simulation of a simple experiment; record the results in a chart, table, or graph; and use the results to draw conclusions about the likelihood of possible outcomes.	700A-700B, 700-701, 702A-702B, 702-703, 704A-704B, 704-707	D78, D79, D80

Standard 2: Discrete Mathematics – Students investigate practical situations such as scheduling, routing, sequencing, networking, organizing and classifying, and analyze ideas like recurrence relations, induction, iteration, and algorithm design.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Use physical models, pictures, diagrams, and lists to solve problems involving possible arrangements or combinations.	578A-578B, 578-579, 644A-644B, 644-645	E24, E39
Repeat a unit to measure length, perimeter, and area.	464A-464B, 464-467, 468A-468B, 468-471	D33, D34

**Scott Foresman – Addison Wesley Mathematics
and Math Diagnosis and Intervention System
to the
Lansing Math Content Benchmarks and Pacing Guide Statements
Grade Four**

STRAND I. PATTERNS, RELATIONSHIPS AND FUNCTIONS

Standard 1: Patterns – Students recognize similarities and generalize patterns, use patterns to create models and make predictions, describe the nature of patterns and relationships, and construct representations of mathematical relationships.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Summarize and extend arithmetic and geometric sequences (sequences bases on multiplication and division) by stating their rules.	10A-10B, 10-11, 90A-90B, 90-91, 366A-366B, 366-367, 641	F11, G36, M35
Represent and analyze patterns (e.g., pictures, words, tables, charts, graphs, and rules).	10A-10B, 10-11, 90A-90B, 90-91, 366A-366B, 366-367, 641	F11, G36, M35
Generalize patterns and their relationship found inside and outside the classroom (e.g., words and symbols)	10A-10B, 10-11, 90A-90B, 90-91, 366A-366B, 366-367, 641	F11, G36, M35
Create and extend arithmetic and geometric sequences from a rule (e.g., words, symbols, or pictures)	164A-164B, 164-165	J13

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Solve problems using number patterns.	10A-10B, 10-11, 90A-90B, 90-91, 366A-366B, 366-367, 641	F11, G36, M35

Standard 2: Variability and Change – Students describe the relationship among variables, predict what will happen to one variable as another variable is changed, analyze natural variation and sources of variability, and compare patterns of change.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Describe patterns of change over time using charts, graphs, and rules.	10A-10B, 10-11, 90A-90B, 90-91, 366A-366B, 366-367, 641	F11, G36, M35
Describe how one variable changes with respect to another.	164A-164B, 164-165	J13
Use symbols to represent descriptions of patterns/relationships in multi-step Input/Output Tables.	164A-164B, 164-165	J13
Use patterns of change to make predications, answer questions, and solve problems.	10A-10B, 10-11, 90A-90B, 90-91, 366A-366B, 366-367, 641	F11, G36, M35
Construct and order a table/chart to solve problems concerning a given relationship.	164A-164B, 164-165	J13

STRAND II. GEOMETRY AND MEASUREMENT

Standard 1: Shape and Shape Relationships – Students develop spatial sense, use shape as an analytic and descriptive tool, identify characteristics and define shapes, identify properties and describe relationships among shapes.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Identify and name segments, lines, and rays.	440A-440B, 440-443	K46
Identify right angles in shapes and decide whether other angles are greater than (obtuse) or less than (acute) a right angle.	444A-444B, 444-447	K41, K42
Identify and describe quadrilaterals (e.g., rectangle, square, rhombus, trapezoid, kite, parallelogram).	444A-444B, 444-447	K41, K42
Identify and describe triangles based on angle measures or side lengths.	444A-444B, 444-447	K41, K42
Identify similarities and differences of quadrilaterals.	444A-444B, 444-447	K41, K42
Describe, classify, compare, and model two-dimensional shapes and three-dimensional objects using their attributes.	434A-434B, 434-437, 438A-438B, 438-439, 444A-444B, 444-447	K38, K41, K42, K45
Draw parallel lines, angles, triangles, and quadrilaterals using a straight edge.	440A-440B, 440-443	K46

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Combine two-dimensional shapes (create nets) to create three-dimensional objects.	434A-434B, 434-437	K38
Identify, describe, and model intersecting, parallel, and perpendicular lines and line segments.	440A-440B, 440-443	K46
Identify and model similarity and congruence with concrete materials and drawings.	452A-452B, 452-455, 456A-456B, 456-459	K43, K48
Describe points, lines and planes and identify models in the environment.	440A-440B, 440-443	K46
Use geometric models to solve problems in other areas of mathematics such as number (e.g., multiplication/division) and measurement (e.g., area, perimeter, border)	434A-434B, 434-437, 438A-438B, 438-439, 444A-444B, 444-447	K38, K41, K42, K45

Standard 2: Position – Students identify locations of objects, identify location relative to other objects, and describe the effects of transformations (e.g., sliding, flipping, turning, enlarging, reducing) on an object.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Specify locations and plot ordered pairs on a coordinate plane, using first quadrant points.	212A-212B, 212-215, 216A-216B, 216-221	L4, L5
Identify and model lines of symmetry, lines of reflection, reflected figures, and figures with line symmetry.	456A-456B, 456-457	K44
Demonstrate translations, reflections, and rotations (transformations) using concrete models.	452A-452B, 452-455	K43, K48
Illustrate reflections, rotations, and translations of plane figures and record observations (e.g., use designs, models, and computer graphics).	452A-452B, 452-455	K43, K48
Identify, describe, and use reflections, and translations in solving geometric problems (e.g., use transformations to determine if two shapes are congruent).	452A-452B, 452-455	K43, K48

Standard 3: Measurement – Students compare attributes of two objects, or of one object with a standard (unit), and analyze situations to determine what measurement(s) should be made and to what level of precision.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Identify, select, and record appropriate units of measure (both customary and metric) for length, capacity, weight, time, and temperature.	588A-588B, 588-589, 590A-590B, 590-591, 592A-592B, 592-593, 594A-594B, 594-595, 652A-652B, 652-653, 654A-654B, 654-655, 656A-656B, 656-657	K1, K2, K5, K6, K7, K8, K9
Determine the relationship between the total number of square units contained in a rectangle and the length and width of the figure.	468A-468B, 468-473	K25
Demonstrate and describe perimeter as surrounding and area as covering a two-dimensional shape.	464A-464B, 464-467	K26
Find elapsed time using a calendar or a clock.	196A-196B, 196-197, 200A-200B, 200-201	K16, K17, K18
Estimate and measure distances and perimeters of regular and irregular polygons.	464A-464B, 464-467	K26
Determine areas using grids (e.g., rectangles, squares, other regular and irregular figures).	468A-468B, 468-473	K25
Relate the number of units to the size of the units used to measure an object.	468A-468B, 468-473	K25

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Make simple unit conversations within a measurement system (e.g., inches and feet, kilograms and grams, quarts and gallons, hours and minutes)	596A-596B, 596-599, 658A-658B, 658-661	K19
Use scale drawings, models, and maps and relate them to measurements of real objects.	458A-458B, 458-459	K48
Write, solve, and verify solutions to multi-step problems involving measurement (e.g., length, area, perimeter, time, temperature, money).	588A-588B, 588-589, 590A-590B, 590-591, 592A-592B, 592-593, 594A-594B, 594-595, 652A-652B, 652-653, 654A-654B, 654-655, 656A-656B, 656-657	K1, K2, K5, K6, K7, K8, K9
Determine situations in which a highly accurate measurement is important.	590A-590B, 590-591	K1

STRAND III. DATA ANALYSIS AND STATISTICS

Standard 1: Collection, Organization and Presentation of Data – Students collect and explore data, organize data into a useful form, and develop skill in representing and reading data displayed in different formats.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Create a plan prior to collecting data for a specific purpose.	230A-230B, 230-231	L25
Compare different representations of the same data to evaluate how well each representation shows important aspects of the data.	232A-232B, 232-233	L6
Identify appropriate ways to display the data.	204A-204B, 204-205, 206A-206B, 206-207, 208A-208B, 208-211, 216A-216B, 216-221	L2, L3, L5, L25

Standard 2: Description and Interpretation – Students examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Read and interpret graphs and charts (line graphs and line plots) and answer questions about the situation.	204A-204B, 204-205, 206A-206B, 206-207, 208A-208B, 208-211, 216A-216B, 216-221	L2, L3, L5, L25

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Identify range, median, mode and describe what each indicates about the data.	226A-226B, 226-229	L26
Compare two sets of related data to draw and justify conclusions.	216A-216B, 216-221	L5
Raise and answer questions about the source, collection, organization, and presentation of data; conclusions drawn from the data; and explore biases in the data.	204A-204B, 204-205, 206A-206B, 206-207, 208A-208B, 208-211, 216A-216B, 216-221	L2, L3, L5, L25

Standard 3: Inference and Prediction – Students draw defensible inference about unknown outcomes, make predictions, and identify the degree of confidence they have in their predictions.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Formulate and communicate arguments and conclusions based on data and evaluate their arguments and those of others.	204A-204B, 204-205, 206A-206B, 206-207, 208A-208B, 208-211, 216A-216B, 216-221	L2, L3, L5, L25
Propose and explain interpretations and predictions based on data displayed in tables, charts, and graphs.	204A-204B, 204-205, 206A-206B, 206-207, 208A-208B, 208-211, 216A-216B, 216-221, 232A-232B, 232-233	L2, L3, L5, L6, L25

STRAND IV. NUMBER SENSE AND NUMERATION

Standard 1: Concepts and Properties of Numbers – Students experience counting and measuring activities to develop intuitive sense about numbers, develop understanding about properties of numbers, understand the need for the existence of different sets of numbers, and investigate properties of special numbers.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Read and write numbers less than one million using standard and expanded notation.	4A-4B, 4-7, 8A-8B, 8-9	F7, F10
Identify fractional parts of a collection of objects and regions.	500A-500B, 500-501, 502A-502B, 502-503	H12, H14
Use place value structure of the base-ten number system to read, write, represent, and compare whole numbers through millions and decimals through thousandths.	4A-4B, 4-7, 8A-8B, 8-9, 16A-16B, 16-19, 628A-628B, 628-629, 630A-630B, 630-631	F7, F10, F12, I4, I7
Use order of operations with addition, subtraction, multiplication, and division.	100A-100B, 100-101, 166A-166B, 166-167	J19, J21
Represent multiplication and division situations in picture, word, and number form to solve problems.	270A-270B, 270-273, 274A-274B, 274-277, 332A-332B, 332-335, 336A-336B, 336-337, 380A-380B, 380-383, 386A-386B, 386-389, 390A-390B, 390-391	G41, G42, G50, G51, G52, G53, G58, G59

Standard 2: Representation and Uses of Numbers – Students recognize that numbers are used in different ways such as counting, measuring, ordering and estimating, understand and produce multiple representations of a number, and translate among equivalent representations.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Represent fractions and mixed numbers using words, numerals, and physical models.	500A-500B, 500-501, 502A-502B, 502-503, 530A-530B, 530-533	H12, H14, H15
Represent decimals (tenths and hundredths) using words, numerals, and physical models.	624A-624B, 624-627, 628A-628B, 628-629	I4
Identify and generate equivalent forms of fractions and decimals.	516A-516B, 516-519, 624A-624B, 624-627	H8, I4
Select the appropriate type of estimate, including overestimate, underestimate, and range of estimate.	62A-62B, 62-63, 64A-64B, 64-67, 68A-68B, 68-71, 72A-72B, 72-73, 258A-258B, 258-261, 316A-316B, 316-319, 368A-368B, 368-371, 636A-636B, 636-637	F26, F29, G37, G38, G56, I12

Standard 3: Number Relationships – Students investigate relationships such as equality, inequality, inverses, factors and multiples, and represent and compare very large and very small numbers.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Compare and order whole numbers, fractions, and decimals (e.g., on a number line).	16A-16B, 16-19, 524A-524B, 524-527, 630A-630B, 630-631	F12, H19, I7
Compare fractions and decimals to benchmarks.	508A-508B, 508-511, 632A-632B, 632-633	H10, I6
Identify and represent factors and multiples of whole numbers.	402A-402B, 402-403, 406A-406B, 406-407	G61, H1
Apply their understanding of fractions and decimals relationships in solving problems.	564A-564B, 564-567, 568A-568B, 568-571, 574A-574B, 574-577, 578A-578B, 578-581, 642A-642B, 642-645	H28, H29, H31, I13, I14

STRAND V: NUMERICAL AND ALGEBRAIC OPERATIONS AND ANALYTICAL THINKING

Standard 1: Operations and their Properties - Students understand and use various types of operations (e.g., addition, subtraction, multiplication, division) to solve problems.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Use physical models, visual representations, and paper and pencil to add and subtract decimals and commonly used fractions.	564A-564B, 564-567, 568A-568B, 568-571, 574A-574B, 574-577, 578A-578B, 578-581, 638A-638B, 638-641, 642A-642B, 642-645	H28, H29, H31, I11, I13, I14

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Develop and explain strategies for performing mental computation with whole numbers.	62A-62B, 62-63, 64A-64B, 64-67, 262A-262B, 262-263, 366A-366B, 366-367	F26, G36, G40
Choose from a variety of methods and tools to compute and justify the choice in a given situation.	290A-290B, 290-291	M1
Develop and analyze algorithms for multiplying and dividing multi-digit numbers and demonstrate fluency.	270A-270B, 270-273, 274A-274B, 274-277, 332A-332B, 332-335, 336A-336B, 336-337, 380A-380B, 380-383, 386A-386B, 386-389, 390A-390B, 390-391	G41, G42, G50, G51, G52, G53, G58, G59
Develop strategies to estimate the results of whole number computation and evaluate the reasonableness of the estimate (e.g., rounding, front-end estimation, compatible numbers).	62A-62B, 62-63, 64A-64B, 64-67, 68A-68B, 68-71, 72A-72B, 72-73, 258A-258B, 258-261, 316A-316B, 316-319, 368A-368B, 368-371, 636A-636B, 636-637	F26, F29, G37, G38, G56, I12
Develop concepts of equivalence that support strategies for multiplication that use the distributive property (e.g., calculate 52×8 by recognizing an equivalent problem and computing 50 8s plus 2 8s)	256A-256B, 256-257	G35
Describe the meaning of remainders as they apply to problems.	372A-372B, 372-373, 384A-384B, 384-385	G50, M23

Standard 2: Algebraic and Analytic Thinking – Students analyze problems to determine an appropriate process for solution, and use algebraic notations to model or represent problems.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Translate between the different forms of representation (symbolic, numerical, verbal, or pictorial) of whole number relationships (e.g., from a written description to an equation or from a function table to a written description).	94A-94B, 94-95, 96A-96B, 96-97	J18, M15
Determine if there is sufficient information to solve a problem and identify missing or extraneous data in problem-solving situations.	696A-696B, 696-697	M5

STRAND VI: PROBABILITY AND DISCRETE MATHEMATICS

Standard 1: Probability – Students develop an understanding of the notion of certainty and of probability as a measure of the degree of likelihood that can be assigned to a given event based on the knowledge available, and make critical judgments about claims that are made in probabilistic situations.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Explain the difference between chance and certainty and give examples to illustrate understanding.	700A-700B, 700-703	L13

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Place events in order of likelihood and use a diagram or appropriate language to compare the chance of each event occurring (e.g., impossible, unlikely, equal, likely, certain, 1 out of 4, $\frac{1}{4}$)	704A-704B, 704-705, 706A-706B, 706-709, 710A-710B, 710-713	L12, L14, L15
Investigate, discuss probabilities, and draw conclusions from the results by experimenting with devices that generate random outcomes (e.g., coins, number cubes, spinners).	700A-700B, 700-703, 704A-704B, 704-705, 706A-706B, 706-709, 710A-710B, 710-713	L12, L13, L14, L15
Summarize and display the results of probability experiments in a clear and organized way in a table, chart, or graphs. Use a fraction to describe the probability of an event and report the outcome of an experiment.	704A-704B, 704-705, 706A-706B, 706-709, 710A-710B, 710-713	L12, L14, L15
Use dice, coins, cards, or other manipulatives to conduct probability experiments and simulations to model and solve problems (e.g., find the probability of choosing a diamond in a deck of cards.).	700A-700B, 700-703, 704A-704B, 704-705, 706A-706B, 706-709, 710A-710B, 710-713	L12, L13, L14, L15

Standard 2: Discrete Mathematics – Students investigate practical situations such as scheduling, routing, sequencing, networking, organizing and classifying, and analyze ideas like recurrence relations, induction, iteration, and algorithm design.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
List and count all possible combinations using one member from each of several sets, each containing 2 or 3 members (e.g., the number of possible outfits from 3 shirts, 2 shorts, and 2 pairs of shoes).	704A-704B, 704-705	L14
Explore situations that model and trace paths using figures consisting of vertices connected by edges (e.g., constructing figures, planning trips, vertex edge graphs).	512A-512B, 512-513	H8
Create and solve logic riddles.	584A-584B, 584-585	M41
Use discrete mathematics concepts to model situations and solve problems; and look for whether or not there is a solution (existence problems), determine how many solutions there are (counting problems) and decide upon a best solution (optimization problems).	326A-326B, 326-329, 584A-584B, 584-585	M27, M41

**Scott Foresman – Addison Wesley Mathematics
and Math Diagnosis and Intervention System
to the
Lansing Math Content Benchmarks and Pacing Guide Statements
Grade Five**

STRAND I. PATTERNS, RELATIONSHIPS AND FUNCTIONS

Standard 1: Patterns – Students recognize similarities and generalize patterns, use patterns to create models and make predictions, describe the nature of patterns and relationships, and construct representations of mathematical relationships.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Justify the rule for a pattern.	106A-106B, 106-107, 728A-728B, 728-729	J13, J27
Use patterns and their generalizations to make and justify inferences and predictions.	14A-14B, 14-17, 66A-66B, 66-67, 84A-84B, 84-85, 106A-106B, 106-107, 136A-136B, 136-137, 728A-728B, 728-729	F11, G36, G63, I9, I18, J13, J27
Use patterns, rules, and generalizations to solve problems and explore new content.	106A-106B, 106-107, 728A-728B, 728-729	J13, J27

Standard 2: Variability and Change – Students describe the relationship among variables, predict what will happen to one variable as another variable is changed, analyze natural variation and sources of variability, and compare patterns of change.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Describe how the quantitative change in a variable affects the value of a related variable.	106A-106B, 106-107, 728A-728B, 728-729	J13, J27
Use variables as unknown quantities in general rules when describing patterns and other relationships.	106A-106B, 106-107, 728A-728B, 728-729	J13, J27

STRAND II. GEOMETRY AND MEASUREMENT

Standard 1: Shape and Shape Relationships – Students develop spatial sense, use shape as an analytic and descriptive tool, identify characteristics and define shapes, identify properties and describe relationships among shapes.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Use standard language to describe line, segment, ray, angle, skew, parallel and perpendicular.	328A-328B, 328-331, 332A-332B, 332-335, 336A-336B, 336-337	K46, K47, K49
Draw circles and identify and determine the relationships among the radius, diameter, center, and circumference.	336A-336B, 336-337	K47

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Use multiple classification criteria to classify triangles (e.g., right scalene, obtuse isosceles).	342A-342B, 342-345	K50
Predict what three-dimensional object will result from folding a two-dimensional net, then confirm the predication by folding the net.	598A-598B, 598-601	K54
Recognize which attributes change or don't change when plane figures are cut up and rearranged (e.g., shape, area, perimeter).	364A-364B, 364-367	K52

Standard 2: Position – Students identify locations of objects, identify location relative to other objects, and describe the effects of transformations (e.g., sliding, flipping, turning, enlarging, reducing) on an object.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Locate and describe objects in terms of their compass directions (N-S-E-W) and their degree equivalence (0°, 90°, 180°, 270°).	332A-332B, 332-335	K49
Use concepts of position, direction, and orientation to describe the physical world and to solve problems.	276A-276B, 276-279	M32

Standard 3: Measurement – Students compare attributes of two objects, or of one object with a standard (unit), and analyze situations to determine what measurement(s) should be made and to what level of precision.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Use a tool to measure and draw line segments, angles, and polygons.	328A-328B, 328-331, 340A-340B, 340-341	K45, K46
Use benchmark angles (e.g., 45°, 90°, 120°) to estimate the measure of angles.	332A-332B, 332-335	K49
Estimate problems involving measurement including time, temperature, and money.	562A-562B, 562-563, 564A-564B, 564-567, 568A-568B, 568-569	K14, K16, K21
Make conversions within the same measurement system while performing computations.	536A-536B, 536-539	K10

STRAND III. DATA ANALYSIS AND STATISTICS

Standard 1: Collection, Organization and Presentation of Data – Students collect and explore data, organize data into a useful form, and develop skill in representing and reading data displayed in different formats.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Select, explain, and use a graph that is appropriate for the type of data to be displayed (e.g., numerical vs. categorical data, discrete vs. continuous data).	262A-262B, 262-265, 266A-266B, 266-269, 270A-270B, 270-275, 276A-276B, 276-279	L3, L5, L28, M32

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Determine appropriate data to be collected to answer questions posed, collect and display the data, and clearly communicate findings.	260A-260B, 260-261	L25

Standard 2: Description and Interpretation – Students examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Read, construct, and interpret frequency tables, double-bar graphs, and line graphs.	262A-262B, 262-265, 266A-266B, 266-269, 270A-270B, 270-275, 276A-276B, 276-279	L3, L5, L28, M32
Determine and use the range, mean, median, and mode, and explain what each does and does not indicate about the data set.	282A-282B, 282-285	M32
Modify initial conclusions and propose and justify new interpretations and predications as additional data are collected.	262A-262B, 262-265, 266A-266B, 266-269, 270A-270B, 270-275, 276A-276B, 276-279	L3, L5, L28, M32
Formulate grade-appropriate questions and problems and gather and interpret data to answer those questions.	262A-262B, 262-265, 266A-266B, 266-269, 270A-270B, 270-275, 276A-276B, 276-279, 288A-288B, 288-291	L3, L5, L6, L28, M32

Standard 3: Inference and Prediction – Students draw defensible inference about unknown outcomes, make predictions, and identify the degree of confidence they have in their predictions.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Make and test hypotheses.	296A-296B, 296-299	L16
Compare what should happen (theoretical/expected results) with what did happen (experimental/actual results) in a simple experiment.	296A-296B, 296-299	L16

STRAND IV. NUMBER SENSE AND NUMERATION

Standard 1: Concepts and Properties of Numbers – Students experience counting and measuring activities to develop intuitive sense about numbers, develop understanding about properties of numbers, understand the need for the existence of different sets of numbers, and investigate properties of special numbers.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Understand the special property of 0 and 1 in operations with fractions and decimals.	94A-94B, 94-97, 460A-460B, 460-461	H29, I22, I23

Standard 2: Representation and Uses of Numbers – Students recognize that numbers are used in different ways such as counting, measuring, ordering and estimating, understand and produce multiple representations of a number, and translate among equivalent representations.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Use models and pictures to relate concepts of ratio, proportion, and percent including percents less than 1 and greater than 100.	646A-646B, 646-647, 648A-648B, 648-651, 652A-652B, 652-654, 654A-654B, 654-655, 662A-662B, 662-663, 668A-668B, 668-669	I30, I31, I32, I33, I34, I35
Give geometric representations of fractions, prime and composite numbers, and triangular and square numbers (e.g., use tiles to show that composite numbers can be represented by rectangular arrays in more than one way while prime numbers can only be represented one way, in 1-by-n arrays).	162A-162B, 162-163, 164A-164B, 164-167	H2, H3
Use various forms of “one” to demonstrate equivalence of fractions (e.g., $18/24 = 9/12 \times 2/2 = 3/4 \times 6/6$).	412A-412B, 412-413	H24
Represent the simplest form of a fraction using manipulatives, pictorial representation, and symbols.	416A-416B, 416-417	H17

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Identify and generate equivalent forms of fractions, decimals, and percents and translate freely among representations.	412A-412B, 412-413, 426A-426B, 426-429	H24, H25
Distinguish between numbers that are used for counting, ordering, measuring and naming.	4A-4B, 4-5, 6A-6B, 6-7, 8A-8B, 8-11, 12A-12B, 12-13	F7, F15, I5, I8
Round decimals to a given place value and round fractions (including missed numbers) to the nearest one-half.	26A-26B, 26-27, 402A-402B, 402-403	F16, H22, I10

Standard 3: Number Relationships – Students investigate relationships such as equality, inequality, inverses, factors and multiples, and represent and compare very large and very small numbers.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Represent and compare integers by extending the number line and using familiar applications (e.g., temperature, owing money, gain or loss, above or below sea level).	712A-712B, 712-715, 716A-716B, 71-6717, 718A-718B, 718-719	J1, J2, J3

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Use models and visual representation to develop the concept of ratio as part-to-part and part-to-whole, and the concept of percent as part-to-whole.	646A-646B, 646-647, 648A-648B, 648-651, 652A-652B, 652-654, 654A-654B, 654-655, 662A-662B, 662-663, 668A-668B, 668-669	I30, I31, I32, I33, I34, I35
Use strategies to develop rules for divisibility.	162A-162B, 162-163	H2
Determine and use multiples, common multiples, and least common multiples of numbers.	164A-164B, 164-167	H3
Determine and use factors, common factors, and greatest common factors of numbers.	162A-162B, 162-163, 414A-414B, 414-415	H2, H4
Describe the difference between prime and composite numbers.	164A-164B, 164-167	H3

STRAND V: NUMERICAL AND ALGEBRAIC OPERATIONS AND ANALYTICAL THINKING

Standard 1: Operations and their Properties - Students understand and use various types of operations (e.g., addition, subtraction, multiplication, division) to solve problems.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Model, represent, explain, and record addition and subtraction situations involving fractions and decimals.	38A-38B, 38-39, 40A-40B, 40-41, 460A-460B, 460-461, 462A-462B, 462-463, 464A-464B, 464-465, 466A-466B, 466-469	H29, H30, H31, I17
Develop and analyze algorithms for adding and subtracting fractions and decimals and demonstrate fluency.	38A-38B, 38-39, 40A-40B, 40-41, 460A-460B, 460-461, 462A-462B, 462-463, 464A-464B, 464-465, 466A-466B, 466-469	H29, H30, H31, I17
Estimate the results of computations involving whole numbers, fractions and decimals using a variety of strategies.	28A-28B, 28-31, 68A-68B, 68-70, 86A-86B, 86-87, 138A-138B, 138-143, 204A-204B, 204-209, 474A-474B, 474-475, 494A-494B, 494-495, 672A-672B, 672-675	F39, G38, G56, G65, H33, H38, I12, I19
Use a calculator to compute complex procedures.	91, 167, 221, 273, 305, 367, 397, 481, 567, 601, 651, 715	G54, I20
Choose from a variety of methods and tools to compute and justify the choice in a given situation.	504A-504B, 504-505	M2

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Model, use, and explain the commutative, associative, inverse, and identify properties of addition with fractions and decimals to simplify and solve problems.	696A-696B, 696-699	J24
Efficiently and accurately apply operations and relationships between operations with rational numbers in solving problems.	36A-36B, 36-37, 38A-38B, 38-39, 40A-40B, 40-41, 88A-88B, 88-91, 94A-94B, 94-97, 152A-152B, 152-155, 156A-156B, 156-157, 158A-158B, 158-159, 160A-160B, 160-161, 202A-202B, 202-203, 214A-214B, 214-217, 218A-218B, 218-221, 224A-224B, 224-225, 230A-230B, 230-231, 232A-232B, 232-233, 234A-234B, 234-237, 460A-460B, 460-461, 462A-462B, 462-463, 464A-464B, 464-465, 466A-466B, 466-469, 472A-472B, 472-473, 474A-474B, 474-475, 476A-476B, 476-477, 478A-478B, 478-483	F36, F37, I17, I20, G52, G53, G54, G60, G66, G67, H29, H30, H31, H37, H39, H40

Standard 2: Algebraic and Analytic Thinking – Students analyze problems to determine an appropriate process for solution, and use algebraic notations to model or represent problems.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Translate word problems into number sentences, solve, and explain solution.	100A-100B, 100-103, 104A-104B, 104-105	J22, M16
Create and interpret the meaning of equations and inequalities representing problems situations.	108A-108B, 108-109, 700A-700B, 700-701, 702A-702B, 702-705	J21, J25, J26

STRAND VI: PROBABILITY AND DISCRETE MATHEMATICS

Standard 1: Probability – Students develop an understanding of the notion of certainty and of probability as a measure of the degree of likelihood that can be assigned to a given event based on the knowledge available, and make critical judgments about claims that are made in probabilistic situations.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Express outcomes of experimental probability situations verbally and numerically (e.g., 3 out of 4, $\frac{3}{4}$)	296A-296B, 296-299, 300A-300B, 300-301	L16, L17
Explain the difference between probabilities determined from simple experiments (empirical) and probabilities derived mathematically (theoretical).	302A-302B, 302-305	L18

Standard 2: Discrete Mathematics – Students investigate practical situations such as scheduling, routing, sequencing, networking, organizing and classifying, and analyze ideas like recurrence relations, induction, iteration, and algorithm design.

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
Use, create, and interpret diagrams to solve problems (e.g., Venn diagrams, charts, graphs).	262A-262B, 262-265, 266A-266B, 266-269, 270A-270B, 270-275, 276A-276B, 276-279	L3, L5, L28, M32
Model procedures for arithmetic algorithms for whole numbers and analyze their and other students' algorithms to accomplish a task or solve a mathematical problem.	36A-36B, 36-37, 38A-38B, 38-39, 40A-40B, 40-41, 88A-88B, 88-91, 94A-94B, 94-97, 152A-152B, 152-155, 156A-156B, 156-157, 158A-158B, 158-159, 160A-160B, 160-161, 202A-202B, 202-203, 214A-214B, 214-217, 218A-218B, 218-221, 224A-224B, 224-225, 230A-230B, 230-231, 232A-232B, 232-233, 234A-234B, 234-237, 460A-460B, 460-461, 462A-462B, 462-463, 464A-464B, 464-465, 466A-466B, 466-469, 472A-472B, 472-473, 474A-474B, 474-475, 476A-476B, 476-477, 478A-478B, 478-483	F36, F37, I17, I20, G52, G53, G54, G60, G66, G67, H29, H30, H31, H37, H39, H40

Lansing Benchmarks	Scott Foresman – Addison Wesley Mathematics	Math Diagnosis and Intervention System
<p>Use discrete mathematics concepts as described above to model situations and solve problems; and look for whether or not here is a solution (existence problems), determine how many solutions there are (counting problems) and decide upon a best solution (optimization problems).</p>	<p>80A-80B, 80-81, 300A-300B, 300-301</p>	<p>L17, M28</p>