A Correlation of

to the

Maryland Mathematics

Voluntary State Curriculum

Pre-K

O/M-157

Introduction

This document demonstrates the high degree of success students will achieve when using **Scott Foresman – Addison Wesley Mathematics, Pre-K Program** in meeting the objectives of the Maryland Mathematics Voluntary State Curriculum. Correlation page references are to the Teacher's Edition.

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.

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

Scott Foresman – Addison Wesley Mathematics
to the
Maryland Voluntary Curriculum—Pre–K Mathematics

Pre–K

Knowledge of Algebra, Patterns, or Functions:
Students will algebraically represent, model, analyze, or solve mathematical or real-world problems involving patterns or functional relationships.

PATTERNS AND FUNCTIONS

Indicator Statement: Identify, copy, and extend non-numeric patterns

Objective(s):

- Match patterns kinesthetically such as: clap/snap/clap...
94, 95

- Recognize simple patterns
98–101, 102–105, 106–109, 110–111

- Represent simple repeating patterns using no more than 2 different objects, and different actions in the core of the pattern
98–101, 102–105, 106–108, 110–111

- Continue a simple pattern
102–105, 106–109, 110–111

- Create a simple pattern of 2 different objects when given the rule
103–105, 106–108, 110–111

- Identify patterns in real-world situations
94, 95, 99, 100

EXPRESSIONS, EQUATIONS, AND INEQUALITIES

Indicator Statement: Identify inequalities

Objective(s):

- Explore relationships by comparing groups of no more than 5 objects to determine more or less
26–29, 128–131

Knowledge of Geometry:
Students will apply the properties of one–, two, or three-dimensional geometric figures to describe, reason, or solve problems about shape, size, position, or motion of objects.

PLANE GEOMETRIC FIGURES

Indicator Statement: Recognize and use the attributes of plane geometric figures

Objective(s):

- Sort objects by one attribute such as: shape, color, and size
63, 73, 74–77, 164, 165

- Name the attributes of plane figures such as: shape, color, size
62, 68–71, 72–73, 74–77, 82–85

- Match triangles, circles, and squares
72–73, 82–85

- Identify triangles, circles, and squares in the environment
62, 74–77

SOLID GEOMETRIC FIGURES

Indicator Statement: Recognize and use the attributes of solid geometric figures

Objective(s):

- Sort objects by one attribute such as: size, shape, weight, length
68–71, 82–85, 165, 168–171

- Find solid figures in the environment
62, 164

TRANSFORMATIONS

Indicator Statement: Begin to recognize a transformation

Objective(s):

- Tell position by using words such as: over, under, above, on, next to, below, beside, behind
82–85, 86–89, 176–179

- Recognize a slide using concrete materials
82–85

Knowledge of Measurement:
Students will identify attributes, units, or systems of measurements or apply a variety of techniques, formulas, tools or technology for determining measurements.

MEASUREMENT SCALES

Indicator Statement: Recognize and use measurement attributes
Objective(s):

- Demonstrate an understanding of comparative attributes such as: bigger, smaller, longer, shorter, lighter, heavier, shorter, taller, hotter, colder.
140–143, 144–147, 148–151, 177–178

- Compare and describe objects according to a single attribute
68–71, 82–85, 136, 137, 140–143, 144–147, 148–151, 165, 177–178

MEASUREMENT TOOLS

Indicator Statement: Measure in non-standard units

Objective(s):

- Measure length of objects
137, 140–141, 165

- Explore the capacity of containers
136, 148–151

- Explore the weight of objects by using a two-pan balance
136

Knowledge of Statistics:
Students will collect, organize, display, analyze, or interpret data to make decisions or predictions.

DATA DISPLAYS

Indicator Statement: Explore and display data

Objective(s):

- Explore data by answering a yes/no question
156–159, 164

- Display data on real graphs
156–159

- Display data on picture graphs
137, 156–159

DATA ANALYSIS

Indicator Statement: Analyze data

Objective(s):

- Talk about data from real graphs to answer a question such as: Which category has the most?

137, 156–159

Knowledge of Number Relationships or Computation:
Students will describe, represent, or apply numbers or their relationships or will estimate or compute using mental strategies, paper/pencil or technology.

KNOWLEDGE OF NUMBER AND PLACE VALUE

Indicator Statement: Apply knowledge of whole numbers

Objective(s):

- Build concept of number

10–11, 12–13, 30–33, 34–37, 120–123

- Show an understanding of quantity

10–11, 12–13, 34–37, 120–123

- Construct relationships based on quantity

18–21, 22–25

- Use classroom experiences to indicate same, more, or less

26–29, 34–37, 54–57

- Count and discuss quantity

10–11, 12–13, 30–33, 34–37, 120–123

- Use concrete materials to build sets 0 to 5

12–13

- Match a numeral to a set 0 to 5

34–37, 120–123

- Count to 10

10–11, 12–13, 30–33, 34–37, 120–123

- Use ordinal words to indicate position such as: first, next, last

14–17

Process of Mathematics:
Students will demonstrate the processes of mathematics by making connections and applying reasoning to solve problems and to communicate their findings.

PROBLEM SOLVING

Indicator Statement: Apply a variety of concepts, processes, and skills to solve problems

Objective(s):

- Identify the question in the problem

14–17, 18–21, 26–29, 72–73, 74–77, 82–85, 86–89, 98–101, 102–105, 106–109, 110–111, 140–142, 144–147, 148–151, 152–155, 156–159

- Decide if enough information is present to solve the problem

This objective can be introduced during any of these problem-solving strategy lessons.
14–17, 18–21, 26–29, 72–73, 74–77, 82–85, 86–89, 98–101, 102–105, 106–109, 110–111, 140–142, 144–147, 148–151, 152–155, 156–159

- Make a plan to solve a problem

Related content:
22–25, 34–37, 54–57, 78–81

This objective can also be introduced during any of these problem-solving strategy lessons.
14–17, 18–21, 26–29, 72–73, 74–77, 82–85, 86–89, 98–101, 102–105, 106–109, 110–111, 140–142, 144–147, 148–151, 152–155, 156–159

- Apply a strategy, i.e., draw a picture, guess and check, finding a pattern, writing an equation

14–17, 18–21, 26–29, 72–73, 74–77, 82–85, 86–89, 98–101, 102–105, 106–109, 110–111, 140–142, 144–147, 148–151, 152–155, 156–159

- Select a strategy, i.e., draw a picture, guess and check, finding a pattern, writing an equation

14–17, 18–21, 26–29, 72–73, 74–77, 82–85, 86–89, 98–101, 102–105, 106–109, 110–111, 140–142, 144–147, 148–151, 152–155, 156–159

- Identify alternative ways to solve a problem

This objective can be introduced during any of these problem-solving strategy lessons.
14–17, 18–21, 26–29, 72–73, 74–77, 82–85, 86–89, 98–101, 102–105, 106–109, 110–111, 140–142, 144–147, 148–151, 152–155, 156–159

- Show that a problem might have multiple solutions or no solution

This objective can be introduced during any of these problem-solving strategy lessons.
14–17, 18–21, 26–29, 72–73, 74–77, 82–85, 86–89, 98–101, 102–105, 106–109, 110–111, 140–142, 144–147, 148–151, 152–155, 156–159

- Extend the solution of a problem to a new problem situation

This objective can be introduced during any of these problem-solving strategy lessons.
14–17, 18–21, 26–29, 72–73, 74–77, 82–85, 86–89, 98–101, 102–105, 106–109, 110–111, 140–142, 144–147, 148–151, 152–155, 156–159

REASONING

Indicator Statement: Justify ideas or solutions with mathematical concepts or proofs
Objective(s):

- Use inductive or deductive reasoning

128–131, 168–171, 172–175, 176–179

- Make or test generalizations

22–25, 34–37, 54–57, 78–81, 128–131, 168–171, 172–175, 176–179

- Support or refute mathematical statements or solutions

128–131, 168–171, 172–175, 176–179

- Use methods of proof, i.e., direct, indirect, paragraph, or contradiction

128–131, 168–171, 172–175, 176–179

COMMUNICATION

Indicator Statement: Present mathematical ideas using words, symbols, visual displays, or technology

Objective(s):

- Use multiple representations to express concepts or solutions

10–11, 12–13, 34–37, 46–49, 50–53, 74–77, 86–89, 124–127, 128–131, 156–159

- Express mathematical ideas orally

Every activity provides opportunities for students to express mathematical ideas orally. These are some of the many examples.
18–21, 34–37, 68–72, 82–85, 102–105, 120–123, 140–143, 152–155, 172–176

- Explain mathematically ideas in written form

In these Language Building features, teachers record student's responses.
5, 43, 63, 95, 117, 137, 165

- Express solutions using concrete materials

Most activities provide opportunities for students to use concrete materials to express solutions. These are some of the many examples.
10–11, 12–13, 26–29, 50–53, 74–77, 98–101, 110–111, 128–131, 148–151, 168–171

- Express solutions using pictorial, tabular, graphical, or algebraic methods

5, 10–11, 12–13, 34–37, 43, 46–49, 50–53, 63, 74–77, 86–89, 95, 117, 124–127, 128–131, 156–159, 165

- Explain solutions in written form

In these Language Building features, teachers record student's responses.
5, 43, 63, 95, 117, 137, 165

- Ask questions about mathematical ideas or problems

Every activity provides opportunities for students to ask questions about mathematical ideas. These are some of the many examples.
22–25, 46–49, 72–73, 86–89, 106–109, 124–127, 144–147, 156–159, 176–179

- Give or use feedback to revise mathematical thinking

22–25, 34–37, 54–57, 78–81

CONNECTIONS

Indicator Statement: Relate or apply mathematics within the discipline, to other disciplines, and to life

Objective(s):

- Identify mathematical concepts in relationship to other mathematical concepts

Related content:
68–71, 74–77, 86–89, 140–143, 168–171, 176–179

- Identify mathematical concepts in relationship to other disciplines

2, 5, 40, 42, 60, 62, 63, 92, 95, 114, 117, 134, 137, 162, 164

- Identify mathematical concepts in relationship to life

94, 116–119, 148–151, 152–155, 156–159, 172–175

- Use the relationship among mathematical concepts to learn other mathematical concepts

Related content:
68–71, 74–77, 86–89, 140–143, 168–171, 176–179