Introduction to *Voyages* Kindergarten Materials

The *Voyages* program has been developed in response to recognized research and to best practices in mathematics education. The skills and concept are compacted and accelerated giving children the opportunity to constantly push beyond their grade-level expectations. *Voyages* establishes a firm "floor", but removes the "ceiling." While children in Kindergarten may not yet be reading, their ability to grasp important mathematics concepts is profound.

The four main components of ***Voyages*** Kindergarten are *Excursions, Islands, Graph-a-Day,* and *Calendar Time.*

Excursions:

Excursions lessons are designed to provide interactive, contextual, hands-on experiences. They focus on concrete activities and applications and are supported by Teacher's Resource pages, Transparencies, and Student Activity sheets.

Excursions lessons flow as follows:

Setting the Stage	➢ Establishes the psychological set and accesses prior knowledge.
Building Conceptual Knowledge	➢ Presents related concepts and mathematical language
Building Skills and Strategies	➢ Includes a set of skills and strategies, which may be used in application situations that often go beyond traditional approaches.
Putting It into Action	➢ Shows and uses applications of knowledge
Making Connections	➢ Relates the mathematics being learned to other disciplines and/or to other mathematical topics.

Islands:

Islands are math centers, each of which has a specific mathematical focus. There are eight *Islands* in each unit of the Kindergarten program. *Islands* provide small-group, hands-on activities.

Graph-a-Day:
Graph-a-Day provides a daily question to use with children to collect data and construct a simple graph. The complexity of the questions and the graphing techniques increases throughout the year. At the beginning of the year, children answer simple yes/no questions and construct concrete graphs. By the end of the year, children respond to questions that have several possible responses and they are able to construct a wide variety of graphic displays.

Calendar Time:
Calendar Time is a fun daily routine that can be used at different points during the Kindergarten day. Teachers often choose to begin each day with *Calendar Time.* Like the *Graph-a-Day* activities, *Calendar Time* gives children the opportunity to collect and report data, such as who is absent, what day of the school year it is, and what the weather is like. In addition, patterning, place value, money, and counting are reinforced during *Calendar Time.*

Key Similarities between *Everyday Mathematics* and *Voyages*
- Both provide strong and consistent development of the language of mathematics by establishing a framework for dialog about mathematics.
- Both focus instruction so that students are prepared for various kinds of assessments, including open-ended constructed response assessment.
- Both present learning that includes and links experiences from many concrete representational levels; from hands-on to pictorial/representational to abstract/symbolic learning experiences
- Both offer a reliable sequence of lessons for each topic in a daily routine.
- Both create a home and school partnership for exploring mathematics in everyday contexts.

Alignment of *Grade K Everyday Mathematics* and the *Voyages* program
A comparison of each lesson presented in *Everyday Mathematics* for Grade K and *Voyages* is outlined below. The lessons are organized by the Student Journal for the Grade K *Everyday Mathematics* program, highlighting the core concepts for the day's lesson. Comparable *Voyages* lessons are aligned.

Alignment of *Grade K Everyday Mathematics* Voyages

Lesson/ Page	Topic	Strand	Additional Notes	*Voyages* Lessons that Align with This Topic
1	Craft-Stick Patterns	Algebra – Patterns	Pattern Analysis	Students recognize, describe, and extend patterns in the Patterning Island lessons.
2	Measuring My Foot	Measurement – Length	Informal measurement tools (e.g., your foot)	Students work with, recognize and understand attributes of length in U3, U7, and U8 Measurement Island lessons.
3	Dice-Throw Grid	Data – Probability	Recording data from dice throw and studying it for patterns	Students work with probability in the Probability Island lessons.
4	Recording Estimates	Numbers – Estimations	Estimation – comparing to exact answers	Students look at estimation in U9, Shell Estimation.
5	Comparing Measurements	Measurement – Length	Comparing different sized units of informal measurement (e.g. comparing your foot with someone else's)	Students work with, recognize and understand attributes of length in U3, U7, and U8 Measurement Island lessons.
6	Measuring with Standard Measuring Tools	Measurement - Tools	Standard measurement tools	Students use standard measuring tools in U9, Caught a Big Fish; U8, What Time is It?, and U1-U9 Calendar lessons.
7	Pet Bar Graph	Data – Different Types of Graphs	Pictographs	Students use picture graphs in U2, Data Island U6, Graph-A-Day lessons.

8	Penny Piggy Bank	Numbers – Money	Drawing pennies in a piggy bank and counting them to see how many "cents" we have; also spatial sense	Students work with concepts of money in U5, Patterning Island; U7, Heads and Tails; U8, Counting Island; U8, Surprise Island; U8, Jellybeans for Sale; and U9, Buy a Fish.
9	Using Counting as a Measure of Time	Measurement – Time	Measuring with informal tools; also comparing numbers and describing "longest" and "shortest"	Students work with concepts of time in the Calendar lessons; U7, Timely Tales; and U8, What Time is It?
10	Measuring with Different Tools	Measurement – Tools	Standard measurement tools	Students use standard measuring tools in U9, Caught a Big Fish; U8, What Time is It?, and U1-U9 Calendar lessons.
11	Recording Estimates	Numbers – Estimation	Estimation – comparing to exact answers	Students look at estimation in U9, Shell Estimation.
12	Recording Half Groups	Numbers – Counting	Concept of "half"; also counting skills	Students look at various counting strategies in the Counting Island lessons; the Surprise Island lessons; U8, Jellybeans for Sale and U9, Sea Count.
13	Showing Patterns with Symbols	Algebra – Patterns	Pattern Analysis	Students recognize, describe, and extend patterns in the Patterning Island lessons.
14	Tallying Coin Flips	Data – Probability	Recording Heads or Tails using tally marks	Students work with probability in the Probability Island lessons.

15	Class Collection	Data – Collect Data	Collect data from classmates	Students pose questions and collect data in the Graph-A-Day lessons; the Glyph lessons; U5, Mitten Magic; U5, Ice Castle; and U7, Fill It Up.
16	Dice-Throw Grid	Data – Probability	Results of Dice throw	Students work with probability in the Probability Island lessons.
17	Number Story	Numbers/Problem Solving	Problem Solving – students come up with a number story and describe it with pictures and a number sentence	Students apply and adapt problem solving strategies in U3, Fall Patterns; U3, Make Five Seeds; U4, Graph-A-Day; U5, Snowman Addition; U6, Heart Sort and Graph and Puzzling Hearts; U7, Number Island, Home on the Range, and Animals on Parade; U8, Spring Facts and Butterfly Symmetry; U9 Shell Estimation, Fill the Aquarium, and Underwater Mystery Value.
18	10s and 1s with Craft Sticks	Numbers – Place Value	Work with place value models for tens and ones.	Students work with place value concepts in the Calendar lessons, U6, Graph-A-Day; and U3, Counting on Pumpkins.
19	Recording Estimates	Numbers – Estimation	Estimation – comparing to exact answers	Students look at estimation in U9, Shell Estimation.

20	Double-Digits with Dice	Numbers – Place Value	Place Value – writing and comparing 2-digit numbers	Students work with place value concepts in the Calendar lessons, U6, Graph-A-Day; and U3, Counting on Pumpkins.
21	Bead String Name Collections	Algebra – Patterns	Counting; Sorting and Classifying; Patterning	Students sort, classify, and order objects in the Data Island lessons; the Patterning Island lessons; U4, Quilt Quest; U5, Mitten Magic; U5 Ice Castle; U6 Heart Sort and Graph; U7, Home on the Range; U7, Fill It Up; and U8 Butterfly Symmetry
22	Hour-Hand Clock	Measurement – Time	Measuring time on a clock	Students work with concepts of time on a clock in U7, Timely Tales; and U8, What Time is It?
23	Weather Graph Questions	Data – Graphs	Data analysis from a weather graphs	Students work with graphs in the Graph-A-Day lessons and the Glyph lessons.
24	Function Machines	Algebra – Patterns	Given a rule, determine the output and make your own rule and give input and output	Students work with shape patterns in the Calendar lessons and the Patterning lessons. Students work specifically with numerical patterns in U8, Patterning Island.

25	Missing Number Pocket Problems	Numbers – Operations (addition/subtraction)	Open Sentences – shown a picture of one addend and the sum, what is the other addend? Likewise, shown a picture of the difference and the subtrahend, what is the minuend? Students then create one addition and one subtraction problem of their own.	Students understand meanings of addition and subtraction in U2, Number Island and Orange Counting; U5, Number Island and Patterning Island; U6, Number Island and Mailbox Hearts; U7, Home on the Range and Animals on Parade; and U9, Fill the Aquarium
26	Pan Balance with Uniform Weights	Algebra – Balance	Balancing scales	Students use concepts of balance when they model addition and subtraction situations in the Calendar lessons; U4 Quilt Quest; U5 Snowman Addition; U7 Counting Island and Animals on Parade; U8 Spring Facts; and U9, Underwater Mystery Value.
27 - 47	Number Writing	Numbers – Numerals	Practice writing the numbers 0 – 20	Students write or form numerals in U1, Counting Island and Writing Numerals; U2 Data Island and Surprise Island; U4, Number Island; U7, Number Island; and U9, Counting Island.