

**IKM-Manning Curriculum  
Mathematics Standards / Benchmarks / Indicators  
February 2008**

**Standards:**

The students will demonstrate understanding of number and operations

The students will demonstrate understanding of algebra

The students will demonstrate understanding of geometry and measurement

The students will demonstrate understanding of data analysis and probability

**Course Benchmarks:**

1.1.1 Demonstrate understanding of number sense (L, H)

1.1.2 Understand concepts of addition and subtraction as whole number operations(L)

1.2.1 Use number sentences to solve problems (L, H)

1.3.1 Understand spatial relationships of objects (H, L, G)

1.3.2 Measure using standard and nonstandard units (H, L, G)

1.4.1 Organize, represent and compare data on simple graphs and charts (H, L, G)

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**1st Grade**

**1.1 Numbers and Operations**

*1.1.1 Demonstrate understanding of number sense (L, H)*

1.1.1.A Count, read and write whole numbers to 100

1.1.1.B Count by 5s, and 10s to 100

1.1.1.C Compare and order whole numbers to 100

1.1.1.D Count by 2s to 20

1.1.1.E Represent equivalent forms of the same number through the use of physical models, diagrams and number expressions (to 12)

1.1.1.F Count and group objects into ones and tens

1.1.1.G Make reasonable estimates when comparing larger or smaller numbers

1.1.1.H Recognize and name simple fractions ( $\frac{1}{4}$ ,  $\frac{1}{2}$ )

*1.1.2 Understand concepts of addition and subtraction as whole number operations(L)*

1.1.2.A Understand the process of adding and subtracting with numbers up to 12

1.1.2.B Solve addition and subtraction problems with one- and two-digit numbers (without carrying and borrowing)

**1.2 Algebra**

*1.2.1 Use number sentences to solve problems (L, H)*

1.2.1.A Write and solve number sentences from story problems

1.2.1.B Understand the meaning of the symbols +, -, =

1.2.1.C Choose a strategy to solve an addition or subtraction story problem

### **1.3 Geometry and Measurement**

#### *1.3.1 Understand spatial relationships of objects (H, L, G)*

- 1.3.1.A Identify, describe, and compare triangles, rectangles, squares and circles
- 1.3.1.B Classify solid objects by common attributes like shape and size
- 1.3.1.C Show equal combinations of penny, nickel, and dime

#### *1.3.2 Measure using standard and nonstandard units (H, L, G)*

- 1.3.2.A Identify and know the value of the penny, nickel, and dime and quarter
- 1.3.2.B Compare the length and weight of two or more objects
- 1.3.2.C Tell time to the nearest half hour and hour and compare time related to events (before/after, shorter/longer)

### **1.4 Data Analysis and Probability**

#### *1.4.1 Organize, represent and compare data on simple graphs and charts (H, L, G)*

- 1.4.1.A Represent and compare data, using pictures, graphs, and charts
- 1.4.1.B Describe, extend and explain simple repeating patterns (numeric, color and shape patterns)
- 1.4.1.C Understand that some events are more likely to happen than others

### **Problem Solving integrated throughout content area benchmarks**

- Decide about the approach, materials and strategies to use
- Use materials such as manipulatives or sketches to model problems
- Explain the reasoning used and justify the procedures selected
- Describe connections between one problem and another

\*Coding for Infusion Topics covered in curriculum:

Higher Order Thinking Skills (H), Vocational/Career Education (V), Global Education (G), Multi-Cultural/Gender Fair (MCGF), Learning Skills (L), Communication Skills (C), Technology (T)