Magnets

**Animal Habitats** 

The 5 Senses

# In Science,

# we will learn about...

~ Rulers

~ Water

~ Graphs

~ Magnifying Glasses

~ Shadows

~ The Sun

Thermometers

K.1 The student, given two sets containing 10 or fewer concrete items, will identify and describe one set as having more, fewer, or the same number of members as the other set, using the concept of one-to-one correspondence

#### **Essential Knowledge and Skills:**

- Match each member of one set with each member of another set, using the concept of one-to-one correspondence, to compare the number of members between sets, where each set contains 10 or fewer items.
- Compare and describe two sets of 10 or fewer items, using the terms more, fewer, and the same.

K.2 The student, given a set containing 10 or fewer concrete items, will

- tell how many are in the set by counting the numbers orally;
- select the corresponding numeral from a given set; and
- write the numeral to tell how many are in the set.

#### **Essential Knowledge and Skills:**

- Count orally the number of items in a set containing 10 or fewer concrete items, using one-to-one correspondence, and identify the corresponding numeral.
- Identify written numerals from 0 through 10 presented in random order.
- Select the numeral from a given set of numerals that corresponds to a set of 10 or fewer concrete items.
- Write the numerals from 0 through 10.
- Write a numeral that corresponds to a set of 10 or fewer concrete items.

K.1 The student will count objects in a given set containing between 1 and 100 objects and write the corresponding numeral.

#### **Essential Knowledge and Skills:**

- Count by rote from 1 to 100.
- Write numerals for the numbers 1 to 100
- Count a randomly place collection of objects containing between 1 and 100 items and write the corresponding numeral.

**1.2** The student will group a collection of up to 100 objects into tens and ones and write the corresponding numeral to develop an understanding of place value.

#### **Essential Knowledge and Skills**

- Group a collection of objects into sets of tens and ones.
- Write the numeral the corresponds to the total number of objects in a given collection of objects that have been grouped into sets of tens and ones.

### **1.3** The student will count forward by ones, fives and tens to 100, by twos to 20, and backward by ones from 20.

- Count by ones, fives and tens to 100, using concrete objects such as counters, connecting cubes, and pennies.
- Skip count orally by fives and tens to 100.
- Count by twos to 20, using concrete objects such as counters, connecting cubes, and pennies.
- Skip count orally by twos to 20.
- Count backward by ones from 20.

K.3 The student, given and ordered set of three objects and/or pictures, will indicate ordinal position of each item, first through third, and the ordered position of each item from left-to-right, right-to-left, top-to-bottom, and/or bottom-to-top.

#### Essential Knowledge and Skills

- Identify the ordinal positions first, second, and third, using ordered sets of three concrete objects and/or pictures of such sets presented from
  - ~left-to-right
  - ~right-to-left
  - ~top-to-bottom; and
  - ~bottom-to-top

## K.4 The student will investigate and recognize patterns from counting by fives and tens to 30, using concrete objects and a calculator.

#### **Essential Knowledge and Skills**

- Group 30 or fewer objects together into sets of fives or tens and then count them by fives or tens.
- Investigate and recognize the pattern of counting by fives and tens, using 30 or fewer concrete objects.
- Investigate and recognize the patter of counting by fives and tens to 30, using a calculator.

### **1.4** The student will recognize and write numerals 0 through 100.

#### **Essential Knowledge and Skills**

- Say the correct name for each numeral 0 through 100
- Write each numeral 0 through 100, using correct numeral formation.

### **1.5** The student will identify the ordinal positions first through tenth, using an ordered set of objects.

- Count an ordered set of objects, using the ordinal number words, first through tenth.
- Identify the ordinal positions, first through tenth, using an ordered set of objects.
- Identify the ordinal positions, first through tenth, using an ordered set of objects presented in lines or rows from ~left-to-right
  - ~right-to-left
  - ~top-to-bottom; and
  - ~bottom-to-top

#### K.5 The student count forward to 30 and backward from 10.

#### **Essential Knowledge and Skills**

- Count forward from 1 to 30.
- Count backward from 10 to 1.

**1.6** The student will identify and represent the concepts of one-half and one-fourth, using appropriate materials or a drawing.

#### **Essential Knowledge and Skills**

- Represent a whole to show it having two equal parts.
- Represent a whole to show it having four equal parts.
- Identify and model one-half and one-fourth of a whole, using

~region/area models (e.g. pie pieces, pattern blocks, geoboards, drawings); and

~measurement models (e.g., cuisenaire rods, connecting cubes, fraction strips, drawings).

1.7 The student, given a familiar problem situation involving magnitude, will

a) select a reasonable magnitude from three given quantities; a one-digit numeral; a two-digit numeral, and a three-digit numeral (e.g., 5, 50, & 500); and b) explain the reasonableness of his/her choice

- Select a reasonable magnitude for a given set from three given quantities; a one-digit numeral; a two-digit numberal and a three-digit numeral (e.g., 5, 50, and 500 jelly beans in jars) in a familiar problem situation.
- Given a familiar problem situation involving magnitude, explain why a particular estimate was chosen as the most reasonable from three given quantities; a one-digit numeral, a two-digit numeral, and a three-digit numeral.

K.6 The student will add and subtract whole numbers, using up to 10 concrete items.

#### **Essential Knowledge and Skills**

- Combine two sets with known quantities in each set, and count the combined set to determine the sum, where the sum is not greater than 10 concrete items.
- Remove, "take away", or separate part of a set from a given set to determine the result of subtraction.

K.7 The student will recognize a penny, nickel, dime and quarter and will determine the value of a collection of pennies and/or nickels whose total value is 10 cents or less.

#### Essential Knowledge and Skills

- Describe the properties/characteristics (e.g., color, relative size) of a penny, nickel, dime, and quarter.
- Identify a penny, nickel, dime, and quarter.
- Count a randomly placed collection of pennies and/or nickels (or models of pennies and/or nickels) whose value is 10 cents or less, and determine the value of the collection.

### **1.8** The student will recall basic addition facts – i.e., sums to 10 or less – and the corresponding subtraction facts.

#### **Essential Knowledge and Skills**

- Identify + as a symbol for addition and as a symbol for subtraction.
- Recall and state orally the basic addition facts for sums to 10 or less and the corresponding subtraction facts.
- Recall and write the basic addition facts for sums to 10 or less and the corresponding subtraction facts, when addition or subtraction problems are presented in either horizontal or vertical written format.

## **1.9** The student will create and solve story and picture problems involving one-step solutions, using basic addition and subtraction facts.

#### **Essential Knowledge and Skills**

- Interpret and solve oral or written story and picture problems involving one-step solutions, using basic addition and subtraction facts (sums to 10 or less and the corresponding subtraction facts).
- Identify a correct number sentence to solve an oral or written story or picture problem, selecting from among basic addition and subtraction facts.

#### 1.10 The student will

a) identify the number of pennies equivalent to a nickel, a dime, and a quarter; and
b) determine the value of a collection of pennies, nickels, and dimes whose total value is 100 cents or less.

- Identify the value of a nickel, a dime, and a quarter in terms of pennies.
- Recognize the characteristics of pennies, nickels, dimes, and quarters (e.g., color, size)

K.8 The student will identify the instruments used to measure length (ruler), weight (scale), time (clock: digital and analog; calendar: day, month, and season), and temperature (thermometer).

#### **Essential Knowledge and Skills**

- Identify a ruler as an instrument to measure length.
- Identify different types of scales as instruments to measure weight.
- Identify different types of clocks (digital and analog) as instruments to measure time.
- Identify the components of a calendar, including days, months, and seasons.
- Identify different types of thermometers as instruments used to measure temperature.

### K.9 The student will tell time to the hour, using an analog or digital clock.

#### **Essential Knowledge and Skills**

- Tell time on an analog clock to the hour.
- Tell time on a digital clock to the hour.

- Identify the value of a collection of pennies, nickels, and dimes whose total value is 100 cents or less.
- Count by ones to determine the total value of a collection of pennies whose total value is 100 cents or less.
- Count by fives to determine the total value of a collection of nickels whose total value is 100 cents or less.
- Count by tens to determine the total value of a collection of dimes whose total value is 100 cents or less.

### **1.12** The student will use nonstandard units to measure length and weight.

- Measure the length of objects, using nonstandard units (e.g., connecting cubes, paper clips, erasers)
- Measure the weight of objects, using nonstandard units (e.g., paper clips, bean bags, cubes)

### 1.11 The student will tell time to the half hour, using an analog or digital clock.

- Tell time shown on an analog clock to the half hour.
- Tell time shown on a digital clock to the half hour.
- Match a written time to the time shown on a digital or analog clock to the half hour.