

**ELEMENTARY SCHOOL**

**FIRST GRADE**

**SCOPE AND SEQUENCE**

FIRST MATH

FIRST SCIENCE

# Mathematics, Grade 1

## First Six Weeks :: The student is expected to...

- compare and order whole numbers up to 99 (less than, greater than, or equal to) using sets of concrete objects and pictorial models.[1.A]
- create sets of tens and ones using concrete objects to describe, compare, and order whole numbers.[1.B]
- identify individual coins by name and value and describe relationships among them.[1.C]
- read and write numbers to 99 to describe sets of concrete objects.[1.D]
- separate a whole into two, three, or four equal parts and use appropriate language to describe the parts such as three out of four equal parts.[2.A]
- model and create addition and subtraction problem situations with concrete objects and write corresponding number sentences.[3.A]
- use concrete and pictorial models to apply basic addition and subtraction facts (up to  $9 + 9 = 18$  and  $18 - 9 = 9$ ). [3.B]
- identify, describe, and extend concrete and pictorial patterns in order to make predictions and solve problems. [4.A]
- describe and identify two-dimensional geometric figures, including circles, triangles, rectangles, and squares (a special type of rectangle).[6.A]
- describe and identify three-dimensional geometric figures, including spheres, rectangular prisms (including cubes), cylinders, and cones.[6.B]
- read time to the hour and half-hour using analog and digital clocks.[8.B]
- collect and sort data.[9.A]
- use organized data to construct real-object graphs, picture graphs, and bar-type graphs.[9.B]
- draw conclusions and answer questions using information organized in real-object graphs, picture graphs, and bar-type graphs.[10.A]
- identify mathematics in everyday situations.[11.A]
- solve problems with guidance that incorporates the processes of understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness.[11.B]
- select or develop an appropriate problem-solving plan or strategy including drawing a picture, looking for a pattern, systematic guessing and checking, or acting it out in order to solve a problem.[11.C]
- use tools such as real objects, manipulatives, and technology to solve problems.[11.D]
- explain and record observations using objects, words, pictures, numbers, and technology.[12.A]
- relate informal language to mathematical language and symbols.[12.B]
- justify his or her thinking using objects, words, pictures, numbers, and technology.[13.A]

## Second Six Weeks :: The student is expected to...

- use patterns to skip count by twos, fives, and tens.[5.A]
- find patterns in numbers, including odd and even.[5.B]
- compare and order whole numbers using place value.[5.C]
- use patterns to develop strategies to solve basic addition and basic subtraction problems.[5.D]
- use concrete models to combine two-dimensional geometric figures to make new geometric figures.[6.D]
- estimate and measure length using nonstandard units such as paper clips or sides of color tiles.[7.A]
- compare and order two or more concrete objects according to length (from longest to shortest).[7.B]
- describe the relationship between the size of the unit and the number of units needed to measure the length of an object.[7.C]
- compare and order the area of two or more two-dimensional surfaces (from covers the most to covers the least). [7.D]
- compare and order two or more objects according to weight/mass (from heaviest to lightest).[7.F]

## Third Six Weeks :: The student is expected to...

- describe and identify two- and three-dimensional geometric figures in order to sort them according to a given attribute using informal and formal language.[6.C]
- compare and order two or more containers according to capacity (from holds the most to holds the least).[7.E]

# Mathematics, Grade 1

Fourth Six Weeks :: The student is expected to...

Fifth Six Weeks :: The student is expected to...

Sixth Six Weeks :: The student is expected to...

- use appropriate language to describe part of a set such as three out of the eight crayons are red.[2.B]
- identify patterns in related addition and subtraction sentences (fact families for sums to 18) such as  $2 + 3 = 5$ ,  $3 + 2 = 5$ ,  $5 - 2 = 3$ , and  $5 - 3 = 2$ . [5.E]
- compare and order two or more objects according to relative temperature (from hottest to coldest). [7.G]
- order three or more events according to duration. [8.A]
- identify events as certain or impossible such as drawing a red crayon from a bag of green crayons. [10.B]

# Science, Grade 1

## First Six Weeks :: The student is expected to...

- demonstrate safe practices during classroom and field investigations.[1.A]
- ask questions about organisms, objects, and events.[2.A]
- plan and conduct simple descriptive investigations.[2.B]
- gather information using simple equipment and tools to extend the senses.[2.C]
- construct reasonable explanations and draw conclusions.[2.D]
- communicate explanations about investigations.[2.E]
- make decisions using information.[3.A]
- discuss and justify the merits of decisions.[3.B]
- explain a problem in his/her own words and identify a task and solution related to the problem.[3.C]
- collect information using tools including hand lenses, clocks, computers, thermometers, and balances.[4.A]
- record and compare collected information.[4.B]
- sort objects and events based on properties and patterns.[5.A]
- identify, predict, and create patterns including those seen in charts, graphs, and numbers.[5.B]
- sort organisms and objects according to their parts and characteristics.[6.A]
- observe and describe the parts of plants and animals.[6.B]
- manipulate objects such as toys, vehicles, or construction sets so that the parts are separated from the whole which may result in the part or the whole not working.[6.C]
- identify parts that, when put together, can do things they cannot do by themselves, such as a working camera with film, a car moving with a motor, and an airplane flying with fuel.[6.D]
- observe, measure, and record changes in size, mass, color, position, quantity, sound, and movement.[7.A]
- identify and test ways that heat may cause change such as when ice melts.[7.B]
- observe and record changes in weather from day to day and over seasons.[7.C]
- observe and record changes in the life cycle of organisms.[7.D]
- group living organisms and nonliving objects.[8.A]
- compare living organisms and nonliving objects.[8.B]
- identify characteristics of living organisms that allow their basic needs to be met.[9.A]
- compare and give examples of the ways living organisms depend on each other for their basic needs.[9.B]

## Second Six Weeks :: The student is expected to...

- learn how to use and conserve resources and materials.[1.B]
- measure organisms and objects and parts of organisms and objects, using non-standard units such as paper clips, hands, and pencils.[4.C]
- identify and describe a variety of natural sources of water including streams, lakes, and oceans.[10.A]

## Third Six Weeks :: The student is expected to...

## Fourth Six Weeks :: The student is expected to...

## Fifth Six Weeks :: The student is expected to...

## Sixth Six Weeks :: The student is expected to...

- observe and describe differences in rocks and soil samples.[10.B]
- identify how rocks, soil, and water are used and how they can be recycled.[10.C]