

ELEMENTARY SCHOOL
SECOND GRADE
SCOPE AND SEQUENCE

SECOND MATH

SECOND SCIENCE

Mathematics, Grade 2

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

- use concrete models of hundreds, tens, and ones to represent a given whole number (up to 999) in various ways.[1.A]
- find patterns in numbers such as in a 100s chart.[5.A]
- identify, describe, and extend repeating and additive patterns to make predictions and solve problems.[6.C]
- describe attributes (the number of vertices, faces, edges, sides) of two- and three dimensional geometric figures such as circles, polygons, spheres, cones, cylinders, prisms, and pyramids, etc.[7.A]

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

- use place value to read, write, and describe the value of whole numbers to 999.[1.B]
- use concrete models to represent and name fractional parts of a whole object (with denominators of 12 or less).[2.A]
- use patterns in place value to compare and order whole numbers through 999.[5.B]
- use patterns and relationships to develop strategies to remember basic addition and subtraction facts. Determine patterns in related addition and subtraction number sentences (including fact families) such as $8 + 9 = 17$, $9 + 8 = 17$, $17 - 8 = 9$, and $17 - 9 = 8$.[5.C]
- identify patterns in a list of related number pairs based on a real-life situation and extend the list.[6.B]
- read a thermometer to gather data.[10.A]
- draw conclusions and answer questions based on picture graphs and bar-type graphs.[11.B]

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

- use place value to compare and order whole numbers to 999 and record the comparisons using numbers and symbols ($<$, $=$, $>$).[1.C]
- use concrete models to represent and name fractional parts of a set of objects (with denominators of 12 or less).[2.B]
- recall and apply basic addition and subtraction facts (to 18).[3.A]
- select addition or subtraction to solve problems using two-digit numbers, whether or not regrouping is necessary.[3.C]
- cut two-dimensional geometric figures apart and identify the new geometric figures formed.[7.C]
- read and write times shown on analog and digital clocks using five-minute increments.[10.B]
- construct picture graphs and bar-type graphs.[11.A]

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

- use concrete models to determine if a fractional part of a whole is closer to 0 , $1/2$, or 1 .[2.C]
- determine the value of a collection of coins up to one dollar.[3.D]
- describe how the cent symbol, dollar symbol, and the decimal point are used to name the value of a collection of coins.[3.E]
- select a non-standard unit of measure such as square tiles to determine the area of a two-dimensional surface. [9.B]
- select a non-standard unit of measure such as a bathroom cup or a jar to determine the capacity of a given container.[9.C]
- select a non-standard unit of measure such as beans or marbles to determine the weight/mass of a given object.[9.D]

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

- model addition and subtraction of two-digit numbers with objects, pictures, words, and numbers.[3.B]
- use attributes to describe how 2 two dimensional figures or 2 three-dimensional geometric figures are alike or different.[7.B]
- identify concrete models that approximate standard units of length and use them to measure length.[9.A]
- describe activities that take approximately one second, one minute, and one hour.[10.C]
- identify the mathematics in everyday situations.[12.A]
- 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.[12.C]
- explain and record observations using objects, words, pictures, numbers, and technology.[13.A]

Mathematics, Grade 2

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

- model, create, and describe multiplication situations in which equivalent sets of concrete objects are joined.[4.A]
- model, create, and describe division situations in which a set of concrete objects is separated into equivalent sets.[4.B]
- generate a list of paired numbers based on a real-life situation such as number of tricycles related to number of wheels.[6.A]
- use whole numbers to locate and name points on a number line.[8.A]
- use data to describe events as more likely or less likely such as drawing a certain color crayon from a bag of seven red crayons and three green crayons.[11.C]
- 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.[12.B]
- use tools such as real objects, manipulatives, and technology to solve problems.[12.D]
- relate informal language to mathematical language and symbols.[13.B]
- justify his or her thinking using objects, words, pictures, numbers, and technology.[14.A]

Science, Grade 2

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

- construct reasonable explanations and draw conclusions using information and prior knowledge.[2.E]
- classify and sequence organisms, objects, and events based on properties and patterns.[5.A]
- identify characteristics of living organisms.[8.A]
- identify characteristics of nonliving objects.[8.B]

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

- communicate explanations about investigations.[2.F]
- make decisions using information.[3.A]
- observe and record the functions of plant parts.[6.C]
- observe and record the functions of animal parts.[6.D]
- identify characteristics of living organisms.[8.A]
- identify the external characteristics of different kinds of plants and animals that allow their needs to be met.[9.A]

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

- demonstrate safe practices during classroom and field investigations.[1.A]
- learn how to use and conserve resources and dispose of materials.[1.B]
- gather information using simple equipment and tools to extend the senses.[2.D]
- discuss and justify the merits of decisions.[3.B]
- manipulate, predict, and identify parts that, when put together, can do things they cannot do by themselves, such as a guitar and guitar strings.[6.B]
- observe, measure, record, analyze, predict, and illustrate changes in size, mass, temperature, color, position, quantity, sound, and movement.[7.A]

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

- ask questions about organisms, objects, and events.[2.A]
- plan and conduct simple descriptive investigations.[2.B]
- collect information using tools including rulers, meter sticks, measuring cups, clocks, hand lenses, computers, thermometers, and balances.[4.A]
- measure and compare organisms and objects and parts of organisms and objects, using standard and non-standard units.[4.B]
- identify, predict, replicate, and create patterns including those seen in charts, graphs, and numbers.[5.B]
- compare and give examples of the ways living organisms depend on each other and on their environments.[9.B]

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

- communicate explanations about investigations.[2.F]
- manipulate, predict, and identify parts that, when separated from the whole, may result in the part or the whole not working, such as flashlights without batteries and plants without leaves.[6.A]
- observe, measure, and record changes in weather, the night sky, and seasons.[7.D]
- identify characteristics of nonliving objects.[8.B]
- describe and illustrate the water cycle.[10.A]
- identify uses of natural resources.[10.B]

Science, Grade 2

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

- compare results of investigations with what students and scientists know about the world.[2.C]
- gather information using simple equipment and tools to extend the senses.[2.D]
- construct reasonable explanations and draw conclusions using information and prior knowledge.[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]
- measure and compare organisms and objects and parts of organisms and objects, using standard and non-standard units.[4.B]
- observe, measure, record, analyze, predict, and illustrate changes in size, mass, temperature, color, position, quantity, sound, and movement.[7.A]
- identify, predict, and test uses of heat to cause change such as melting and evaporation.[7.B]
- demonstrate a change in the motion of an object by giving the object a push or a pull.[7.C]