

First Grade Math

Learning Goals for the 4th 9 weeks

Skills students should demonstrate at the end of the 4th 9 weeks of school:

Unit 12 Fractions and Time to the Half-Hour

- Learning Goal: The student will **understand a two-dimensional figure can be partitioned into equal parts and each of those parts can be described and named.**

How parents can help:

- ✓ Use the following websites to practice understanding dividing objects into equal parts.
 - <mailto:http://www.beaconlearningcenter.com/WebLessons/FabulousFractions/default.htm>
 - <mailto:http://www.beaconlearningcenter.com/WebLessons/IWantMyHalf/default.htm>
- ✓ Also, use different kinds of fruit or foods from home to divide into equal parts with your student.

- Learning Goal: The student will **identify that clocks are tools that describe the measurement attribute of time (*time to the hour and half-hour*).**

How parents can help:

- ✓ Use the following website as a visual on how clocks and fractions relate to each other:
 - <mailto:http://www.mathsisfun.com/measure/clock-face-fractions.html>
- ✓ You and your student create an at-home math journal.
 - In your journal, draw 4 different clock faces with the times marked on them. Shade in $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$, 1 whole. One fraction shaded per clock.
 - Assist your child with shading and labeling each clock.

Unit 13 Three Dimensional Figures

- Learning Goal: The student will identify that **three-dimensional figures are defined and distinguished by their attributes, which can be described using geometric language. The student will demonstrate that three-dimensional figures are described using geometric language.**

How parents can help:

- ✓ Find the following 3-D objects in your home: sphere, cube, triangular prism, cylinder, and rectangular prism.
 - These shapes can include some of the following: cereal boxes, ball, cell phone, blocks, coke can, roofline, triangle crayons, tent, pitcher, pizza boxes.
- ✓ As you go through these items help your child name the following attributes of each 3-D object:
 - Number of faces
 - Number of corners
 - Number of edges

Unit 14 Linear Measurement

- Learning Goal: The student will **understand that the length of an object is determined by identifying a unit of measure, placing the same unit repeatedly along the object, and counting the number of units that equal the length of the object.**

How parents can help:

- ✓ Create your own at-home math-measuring units. Cut paper squares that are 1 inch by 1 inch.
- ✓ Have your child find different object to measure using their 1 inch squares.
- ✓ For example:
 - Cereal boxes, toys, books, cups, pens, pencils, forks, etc.
- ✓ In your at-home math journal, record drawings of your objects along with their lengths.

- Learning Goal: The student will **identify an inverse relationship exists between the size of a unit of measure and the number of units needed to equal the length of an object and demonstrate that length to the nearest whole unit is described using both a number and a unit.**

How parents can help:

- ✓ Take the objects from above and help your student understand that each 1 inch cube's length is the same as the actual length of the object.
 - If the object is 5 inches long then it will take 5 1 inch cubes to measure the length of the object.
- ✓ Continue to practice this with your child while reinforcing measuring given objects.

Unit 15 Operation Connections

- Learning Goal: The student will **understand that addition can be modeled by the action of joining (*sums of whole numbers up to 20*). Subtraction can be modeled by the action of separating (*differences of whole numbers within 20*). Part-part-whole and comparing situations represent either addition or subtraction (*sums and differences of whole numbers within 20*).**

How parents can help:

- ✓ Create with your child an at-home math spiral notebook, he or she can place their math work in this spiral as they work on solving math problems.
- ✓ Use items through the house to add together. Have your child write the numbers as math equations in their math journals. ex: $3+4=7$
- ✓ Use the following website for additional math assistance: <http://www.ixl.com/math/grade-1>
- ✓ Show your student with the diagram below what exactly part-part whole actually is. The two boxes below are the two numbers being added or subtracted, the box on top is the answer to the problem below.



- ✓ Click on the following website for a online tutorial on part-part whole: <http://video.search.yahoo.com/video/play; ylt=A2KIo9QgB>

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- ✓ Explain to your child that equals means it means the same amount. Place different objects of equal amounts in front of your child and make the equal sign in between the objects
- ✓ You can use the website below to use worksheets and an interactive math equation machine:
<http://firstgradeadventureinteaching.blogspot.com/2013/04/the-meaning-of-equals-sign-first-grade.html>

- Learning Goal: The student will **understand concrete objects and pictorial models can be used to solve addition and subtraction problems (*sums and differences of whole numbers within 20*)**.

How parents can help:

- ✓ Gather various objects from the house, beans or small objects for counting work best.
- ✓ Write a math problem down in your at-home math journal.
 - For example: $5+7=$
 - Place 5 beans under the 5 and 7 beans under the 7, then ask your student to add all the beans together to get the answer.
 - Do this both for addition and subtraction problems.

- Learning Goal: The student will **understand when adding two non-zero whole numbers, the sum will always be larger than each of the addends (*sums of whole numbers within 20*)**.
When subtracting two non-zero whole numbers (with the minuend larger than the subtrahend), the difference will always be smaller than the minuend (*differences of whole numbers within 20*).

How parents can help:

- ✓ Please help your student create a math spiral notebook and ask them to write down various addition problems. ex:
 $4+7=$, $3+5=$, or $7+19=$
- ✓ You may use counters with your student to help them solve the problems you give them, counters can be constructed with pieces of cut up paper.

- ✓ Help your student understand that the answer to an addition problem is always going to be larger than either of the numbers added together as long as there is not a zero. Ex: $6+18= 24$ (rule is correct) $0+7= 7$ (rule does not apply)
 - ✓ Please help your student create a math spiral notebook and ask them to write down various subtraction problems. ex: $5-3=$, $7-4=$, or $20-12=$
 - ✓ You may use counters with your student to help them solve the problems you give them, counters can be constructed with pieces of cut up paper.
 - ✓ Help your student understand that the answer to a subtraction problem is always going to be smaller than the largest number being subtracted as long as there is not a zero. Ex: $12-4= 8$ (rule is correct) $8-0= 8$ (rule does not apply).
- Learning Goal: The student will **use basic fact strategies, including making 10 and decomposing a number leading to 10, can be applied to addition and subtraction problems (sums and differences of whole numbers within 20).**

How parents can help:

- ✓ Help your student understand that composing numbers means to bring them together. For example combining 7 tens and 9 ones equals 79.
- ✓ Help your student understand that decomposing numbers means to break them apart according to their place value. For example 85 can be broken down to 8 tens and 5 ones.
- ✓ Click on the following link for a visual example of composing and decomposing:
 - <http://www.mathsisfun.com/numbers/numbers-compose-decompose.html>
- ✓ Click on the following link for worksheet and activities examples of composing and decomposing numbers:
- ✓ <http://theteacherschair.blogspot.com/2012/11/composing-and-decomposing-numbers.html>

- Learning Goal: The student will **know that solutions to problems can be represented and explained using words, concrete objects, pictorial models, and number sentences (*sums and differences of whole numbers within 20*)**. Number patterns within properties of numbers and operations can be used to describe relationships within addition and subtraction equations and applied to solve problems (*sums and differences of whole numbers within 20*).

How parents can help:

- ✓ You and your student can use pasta or beans as counters to solve math problems.
- ✓ You can also use various toys of any kind to have as pictorial models for your student to solve problems
- ✓ Use the following websites for further practice on solving problems with pictorial models:
 - <http://www.ixl.com/math/grade-1/subtraction-with-pictures-numbers-up-to-10>
 - <http://www.mathblaster.com/teachers/math-problems/subtraction-problems>
 - <http://www.math-salamanders.com/math-problems-for-children.html>

- Learning Goal: The student will **understand that problem situations can be created to illustrate a given number sentence (*sums and differences of whole numbers within 20*)**. **Equivalence between two expressions in a number sentence is indicated by an equal sign.**

How parents can help:

- ✓ Help your student by practicing counting to 120. Explain to your student that numbers, when counted always go in a sequence. Show your student evidence of that on the at-home 120s chart you have created.
- ✓ Use your at-home 120s chart and identify patterns in the numbers as they increase. For example every set of numbers has a 5 in the ones place or a 3 in the ones place.
- ✓ Use your at-home 120s chart to practice counting 1-120, show your child that for every number you go up in the chart you are increasing one in the ones place or 10 in the tens place.

Unit 16 Personal Financial Literacy

- Learning Goal: The student will **understand that income is money earned for work performed, a service provided, or the sale of goods.**

How parents can help:

- ✓ Come up with a “job or chore” system within your house, where every job earns money for your child.
 - For example: putting dirty clothes up earns \$.50 and so on.
- ✓ Explain to your child that the money they get for chores is called an income.
- ✓ Continue with your child and help them add their money as they go.

- Learning Goal: The student will **determine income can be used to purchase goods and services. People make choices between wants and needs when using income to purchase goods and services. People make choices between spending and saving money received.**

How parents can help:

- ✓ Using the money your student has earned from doing chores around the house, allow your child to use their money to purchase a good from the store.
- ✓ As your child is deciding on how much money they have and what they want, ask them if the object is something they want or something they need.
- ✓ Explain to your child the differences between wants and needs.
- ✓ In your child’s at-home math journal draw a T chart and label one side Wants and the other side Needs. Help your child categorizing the different object or services.
- ✓ Ask your student after your have completed your T chart if this is something they really want or perhaps they could save their money for something even nicer.

- Learning Goal: The student will **identify that charitable giving includes donations of money, goods, and services.**

How parents can help:

- ✓ Explain to your student that along with helping ourselves we should help others less fortunate.
- ✓ Show them that you can do this in several ways, for example:
 - Donating money
 - Volunteering at a local soup kitchen or church
 - Donating food during food drives
- ✓ Research some local charities and participate in some charity work with your child. This could be something as simple as donating old clothes and toys to Goodwill or donating food to a local food bank.