# 1st Grade Math Course Outline Assignment

## Course Analysis

**Course Name: 1st Grade Math**

**Course Length**: 9 weeks

**Course Type:** Traditional (Web Enhanced)

**Average Student:**

1st grade students, usually around the ages of 5-7. Still getting used to attending school and being away from parents. May still need assistance; not fully independent.

## Content Analysis:

**Students should be able to……**

* Count to 100 by ones and tens. (Learned in kindergarten)
* Count forward beginning with a given number besides 1. (Learned in kindergarten)
* Write numbers from 0-20 (Learned in kindergarten)
* Count to answer “how many” questions. (Learned in kindergarten)
* Identify whether objects are greater than, less than, or equal to. (Learned in kindergarten)
* Represent addition and subtraction with manipulatives. (Learned in kindergarten)
* Solve addition and subtraction word problems within 10. (Learned in kindergarten)
* Powers of ten. (Learned in kindergarten)
* Basic computer knowledge with parent supervision. (Assumed general information)

## General Goals:

**Students will learn to…….**

* **Use addition and subtraction within 20 to solve word problems.**
* **Describe subtraction as an unknown-addend problem.**
* **Relate counting to addition and subtraction.**
* **Understand the meaning of the equal sign and determine addition and subtraction problems as true or false.**
* **Count to 120, starting at any number less than 120.**
* **Understand that the two digits of a two-digit number represent amount of tens and ones.**
* **Use the < or > appropriately in equations.**
* **Add within 100.**
* **Subtract multiples of 10 between 10-90**
* **Tell and write time in hours and half hours.**
* **Organize, represent, and interpret data.**

**General Course Assessments and General Homework Assignments**

* Discussion Boards: This assessment will ensure that students will have the opportunity to collaborate with peers. It includes discussion of greater than, less than, or equal to (<,>,=), and discussing what number comes just after or just before a random number within 120. Complete discussion boards (assessment) by collaborating with peers to answer greater than, less than, and equal to equations.
* Soda Shop Work Sheet: Complete the soda shop worksheet (assessment) by answering real world problems with money.
* Money Quiz: Complete the money quiz (assessment) by answering questions about money and currency.
* Illustrated Clock Time: Complete the illustrated clock time assignment (assessment) by having students write down what they’re doing at 7:00am versus 7:00pm. Students will illustrate their written work.
* Ten Frames Assignment: This assessment proves that students have learned the powers of ten. Complete the ten frames assignment (assessment) by building powers of ten.
* Midterm Quiz: This assessment is to validate that students are learning what they are supposed to in this course and that they are where they should be. Complete the midterm quiz (assessment) by answering questions we have learned thus far.
* Final Quiz: This assessment shows what the child has learned in this class and basically, whether they learned or not. Complete the final quiz (assessment) by answering questions related to what we have learned.
* Self-Tests: Complete the self-tests (assessment) weekly to quiz students on new material learned.
* Feedback Survey: These surveys have been designed for parent feedback and placed throughout the course to help the instructor gather feedback on areas that could use improvement.

**Enhancing Learning:**

This math content will give students a better understanding with place value in the ones, tens, and even hundreds place. It will also teach students how to tell time and the difference in a.m. and p.m. Students will also learn to count by 2s, 5s, and 10s.

## Course Outline - Objectives

**Module 1**

Objectives:

* Use addition and subtraction to count to 20 to solve word problems.
* Describe subtraction as an unknown-addend problem.

**Module 2**

Objectives:

* Relate counting to addition and subtraction.
* Add and subtract within 20, starting with any number besides 1.
* Identify the equals sign.
* Determine if equations are true or false.

**Module 3**

Objectives:

* Determine the unknown number in addition or subtraction.
* Count to 120, starting at a number less than 120.

**Module 4**

Objectives:

* Apply the use of 10s and 1s to a two-digit number
* Compare two-digit numbers based on meaning of tens and ones digits. (Use symbols < and >)

**Module 5**

Objectives:

* Add within 100.
* Determine a number 10 more or less of a two-digit number

**Module 6**

Objectives:

* Subtract multiples of ten in the range of 10-90.
* Count by 5s to 100

**Module 7**

Objectives:

* Count by 2s to 30.
* Match the value of a penny, nickel, dime, quarter, 1 dollar, 5 dollars, 10 dollars, and 20 dollars with an image of currency.

**Module 8**

Objectives:

* Count by 25s to 100.
* Use various currency combinations to interpret a total dollar value.

**Module 9**

Objectives:

* Identify the different hands or dials on the clock.
* Identify the time on a given clock image.
* Describe an analog and digital clock.
* Tell and write time in hours and half-hours using analog and digital clocks.

**Materials:**

* **Weather graph chart**
* **Large and small ten frames (can combine to create twenty frame)**
* **Building blocks**
* **100s chart**
* **120s chart**
* **Estimate jar**
* **1-100 number line**
* **Clock**
* **Days of school chart**
* **Venn diagram**

**Detailed Course Navigation / Outline**

**General Information**

* Syllabus
* Course Schedule
* Grading Policy and Evaluation
* University Policies
* University Services (academic and student support) and Technical Support
* Prerequisite Knowledge and Technical Skills Required
* How To Access Course Materials and Technologies

**Instructor Information**

* Biography
* Contact Information
* Response Times and Grading / Feedback Timeframe

**Course Orientation**

* Purpose of the Course
* Navigation Structure
* How to Proceed Through the Course

**Lessons and Materials**

**Module 1**

Lessons:

* Break students into groups of two and have them add and subtract to create ten in ten frames. (In class)
* Model for students that subtraction is an unknown-addend problem. (In class)
* Addition and subtraction games within ten will be in blackboard for them to play for extra practice.
* “Get to know me” discussion board. Students will talk about their favorite or lucky number and why. If they do not have one then they will talk about a number that they want to know more about.
* Video will be posted for student and parent to watch. https://youtu.be/xAtC-7\_Ijqg
* Ten frames (assignment) will be in blackboard to print out at home and practice independently or with parent.
* Student will build numbers using drawn ten frames and submit to blackboard.
* Module 1 self-test is to completed on powers of ten.

**Module 2**

Lessons:

* Have two volunteer students draw a number from the number box and have them circle the number on the number line. Then, have the students count forward and backward. (Example: Numbers 5 and 10 are drawn. Students would count 5,6,7,8,9,10,9,8,7,6,5) (In class)
* Have students determine whether the numbers are greater than less, less than, or equal to each other and have them place the correct equation on the board. (In class)
* The alligator mouth activity (assignment) will be posted in blackboard for the parents to work with their child. The activity consists of a free alligator template. The parent will be instructed to print these out and use toys on each sides and have the child determine if the toys are greater than, less than, or equal to.
* A video will be posted about greater than, less than, and equal to. <https://www.youtube.com/watch?v=M6Efzu2slaI>
* Games will be posted for this topic.
* Students will post a discussion about their age versus a sibling, parent, or friend. They will describe whether their age is greater than, less than, or equal to the other person.
* Module 2 self-test is to be completed on <,>,=.

**Module 3**

Lessons:

* Have students work word problems. For example, Johnny has 5 crayons. Johnny gave 2 crayons to Sally, how many crayons does Johnny have left? (Student should write the number sentence 5-2=3 and illustrate the equation.
* Have students draw a random number and count to 120 by 1s, 2s, 5s, 10s, or 20s. (In class)
* Parents will print out 120s chart to practice counting.
* They will play the “pennies” game. The parent will place 5 random pennies on the chart. The child has to say what number is underneath each penny to win the game.
* Students will complete a discussion board (assignment) this week. I will start by picking a number, for example, 54. The first student to comment on the db will have to comment the number right before or right after my number. (Either 53 or 52) Then, that student gets to choose a random number for the next student to comment on their post with their response.
* Students will comment on another discussion board with their age and how many siblings they have.
* Module 3 self-test is to be completed on word problems.

**Module 4**

Lessons:

* Have students count a straw for each day in school. Have the straws sectioned off into groups of 1s, 10s, and 100s. For example, if the students have been in school for 111 days, they will put 100 straws in the 100s group (broken up into 10 groups of 10), 10 straws in the tens group, and 1 straw in the ones group. (In class)
* Have students draw two numbers from the math meeting and have them determine whether these numbers are greater than, less than, or equal to. Use symbols <,>,= correctly. (In class)
* Parents will be encouraged to continue to play the alligator game with their child.
* Also, students will have games and activities to complete about place value.
* This week, a midterm will be included with everything we’ve learned thus far.
* Students will return to their age and sibling discussion board and reply to 2 of their classmates. They will compare their age and sibling count to their peers’ by using greater than, less than, or equal to.
* Module 4 self-test completed on place value.

**Module 5**

Lessons:

* Have students add fluently within 100. Pick random numbers. (In class)
* Have students get in pairs and pick a random number for their partner to count forward by 10s. Swap places. (In class)
* Have students add 10 to a number. Example: 3,13,23,33,43
* Students will complete problems such as \_\_,13,23,\_\_,43 in blackboard and turn in.
* Blackboard: Students will have a video to watch and games to play. <https://www.youtube.com/watch?v=7stosHbZZZg>
* Module 5 self-test completed on adding within 100 and counting by 10s.
* Course feedback survey will be posted. (for parents)

**Module 6**

Lessons:

* Have students subtract 10 within 100. For example: 100-10= 90, 70-10=60
* Students will complete problems such as 43, \_\_, 23, \_\_
* Have students count to 100 by 5s.
* Students will watch video, “count by 5s.” <https://www.youtube.com/watch?v=amxVL9KUmq8>
* Module 6 self-test completed on counting backwards by 10s.

**Module 7**

Lessons:

* Read “Count by Twos.” Pass out manipulatives and have students count them by 2s to 30. (In class)
* Demonstrate the meaning of money. Read “Alexander, Who Used to be Rich Last Sunday.” Show nickels as counting by 5s and dimes as counting by 10s, and quarters as counting by 25. (In class)
* Students will play games that deal with money on blackboard.
* Parents are encouraged to play “store” at home with their child.
* Students will write a journal about their family “store” experience. (in class)
* This week students will complete the “soda shop” work sheet (assignment) and turn it in.
* Video will be posted on money. <https://www.youtube.com/watch?v=3ARNqyQ0CuY>
* Module 7 self-test completed on counting by 2s and money.

**Module 8**

Lessons:

* Restate the meaning of money. Really focus on quarters and counting by 25s to 100. Also show it can make $1 when counting money. (In class)
* Pass out random amounts of change to each student. Have groups of four get together to see if they can make $1. If not, how much more money do they need? Does another group in the class have extra money that could be borrowed? (In class)
* Students will continue to work on their money games.
* Play “store” at home.
* This week students will have a quiz containing two word problems that deal with money.
* Module 8 completed on money.

**Module 9**

Lessons:

* Students will watch video showing how to read and write time.
* Students will submit an assignment where they will write a sentence and illustration of what they are doing at 7:00AM versus 7:00PM. They will draw a clock and position it to 7:00 o’clock.
* Cut out clocks will be posted as an at home activity.
* Games will be posted.
* Video will be posted. <https://www.youtube.com/watch?v=1eGkW3JnthI>
* Module 9 self-test completed on time.
* Final quiz posted.

**Discussion Boards**

* How to Post
* Link to Discussions
* Netiquette and Posting Standards

**Tests & Quizzes**

* Self-Tests
* Midterm
* Final Exam

**Assignments**

* Soda Shop Work Sheet
  + Instructions and Rubric
  + Quality Example
* Illustrated Clock Time Assignment
  + Instructions and Rubric
  + Quality Example
* Ten Frames Assignment
  + Instructions and Rubric
  + Quality Example
* Alligator Mouth Assignment
  + Instructions and Rubric
  + Quality Example