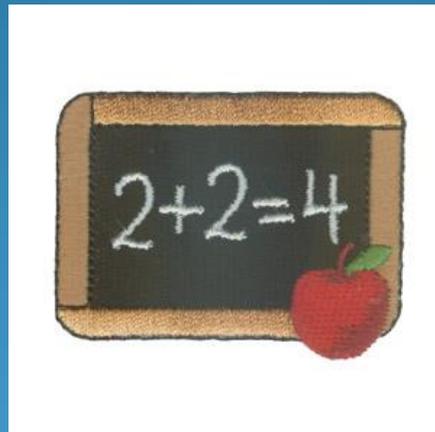


# Teaching Addition

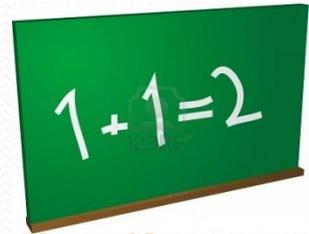
## [Kindergarten to Second Grade]



Created and presented by:

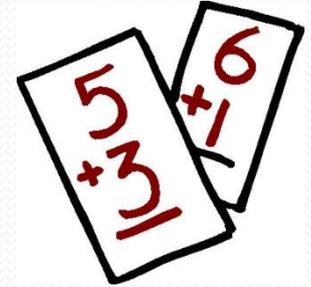
Montserrat Botello, Lillian Dominguez, and Alicia Pacaja

# One Digit by One Digit Addition Lesson Plans



- [http://cem.mtsu.edu/sites/default/files/k\\_12/video\\_handouts/additionmanipulativeslessonplan.pdf](http://cem.mtsu.edu/sites/default/files/k_12/video_handouts/additionmanipulativeslessonplan.pdf)
- This is a lesson plan designed for kindergarten students on how to do one digit by one digit addition. In this lesson plan, the students will learn addition by modeling feeding the birds. Students and teacher will use base tens units as birds and a bird feeder mat. This gives students a visual aid of what addition is about before moving on to creating addition problems. Once this visual is done students move on to creating addition problems by flying their birdies to the perch. Students will also use large foam dice in a game to create addition problems.
- <http://www.brighthubeducation.com/pre-k-and-k-lesson-plans/42089-one-guinea-pig-is-not-enough-kindergarten-math-game-and-lesson/>
- This is a fun math lesson plan for kindergarten to begin teaching kindergartners the concept of addition. After reading a book about adding one more, students will work together in some activities to practice adding one and play a kindergarten math game called “One More”. This kindergarten math game is a great way to introduce students to adding. It can also be used in small groups to reteach or review with those who are struggling.
- <http://www.localschooldirectory.com/lesson-plans/id/154>
- This lesson plan consists of beginning addition problems for kindergarten students. In this lesson plan, the teacher will show the students how to add by giving them examples. First, the teacher will take out four balls. Then, the teacher will put two balls in one group and two more balls in another group. The teacher will show the students that 2 balls + 2 balls = 4 balls. After that, the teacher will give them another example or two. Then, the teacher will give them a copy of an addition worksheet so that each student can have one. After they have completed their worksheets, the teacher collects them and grades them.

# One Digit by One Digit Addition Games and Activities



- <http://www.turtlediary.com/kindergarten-games/math-games/learn-to-add.html>
- This is a kindergarten activity that involves learning the basic principles of how to add numbers. The students practice this simple and easy exercise to build their math skills. The students add the dots and click on the correct answer.
- <http://www.youtube.com/watch?v=zDuHlhbV920>
- This is a great video on YouTube that teaches kindergarten children how to add.
- [http://www.education.com/activity/article/ladybug\\_kindergarten/](http://www.education.com/activity/article/ladybug_kindergarten/)
- This is a great website for kindergarten teachers because it provides a cool and fun activity for the children to learn about addition. The teachers are given steps on how to create a ladybug storyboard. The teachers are also given steps on what to do with that storyboard in order to teach the children about the concept of addition.

# Two Digit by One Digit Addition Lesson Plans

$$\begin{array}{r} 12 \\ + 4 \\ \hline 16 \end{array}$$

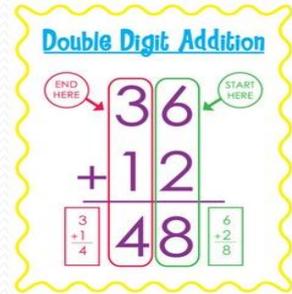
- <http://www.brainpop.com/educators/community/lesson-plan/adding-with-regrouping-background-information-for-teachers-and-parents/>
- This is a great website for first grade teachers because it provides them with lesson plan ideas to incorporate in their classroom when teaching two digit by one digit addition.
- <http://teachers.net/lessons/posts/3457.html>
- This is a great simple lesson plan activity that lets the teacher walk around and assess who has the concept of addition with single and double digits, without regrouping. The teacher pairs students into groups of two. Each group is given 2 post it notes. The teacher writes 5 math problems on the board. Then, they go over the rule that says, “the bigger number goes in your head and use your fingers to show the smaller number, count on, and get the answer”. They have to write on their sticky note: 1. all the numbers that should go in their head (one partner puts the sticky on his forehead) and 2. all the numbers that they will put up their fingers to show (the other partner puts the sticky on her hand). The teacher gives them 3 minutes. Then, the teacher walks around the classroom to see who has gotten them right. After assessing, students copy the problems into their notebooks and are given 6 minutes to solve them. All answers are reviewed with the entire class. Students who have all correct are given stickers.
- <http://schools.utah.gov/CURR/mathelem/Mathematics-Tutoring-Tips/FirstGradeLessons.aspx>
- This is a great website for first grade teachers because it provides them with a lesson plans on two digit by one digit addition (page 54-55). In this lesson plan, students will get into groups of two. The students will get a deck of number cards, and place them face down on the table. The students will build that number on the place value mat. The students will then draw another card, and they will add blocks to the place value mat for that number. The students will count the unit blocks and trade them for a rod (when needed-making 10). The students will write these number down and solve. The process repeats.

# Two Digit by One Digit Addition Games and Activities

$$\begin{array}{r} 5 \\ 12 \\ \hline 17 \end{array}$$

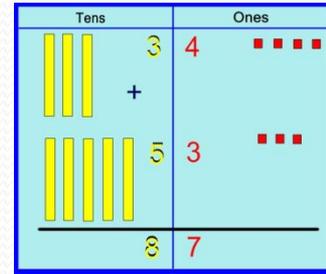
- <http://www.youtube.com/watch?v=sfYdVJU2s2A>
- This is a great video on YouTube that teaches first grade students how to add a two digit number by a one digit number. This video illustrates 1.NBT.4 from the Common Core State Standards for Mathematics.
- <http://www.ixl.com/math/grade-1/add-a-one-digit-number-to-a-two-digit-number-without-regrouping>
- This is a great website for first graders to use in applying their knowledge of two digit by one digit addition. This is a link to an interactive quiz that helps the children practice and apply their addition skills.
- <http://teachingimage.com/addition-worksheets/single-digit-and-2-digit-numbers.pdf>
- This website provides the first grade teacher with a printable worksheet that contains multiple problems in which the children can practice adding two digit by one digit numbers.

# Two Digit by Two Digit Addition Lesson Plans



- <http://webcache.googleusercontent.com/search?q=cache:C5r62mHBmMwJ:math-4326.wikispaces.com/file/view/2%2BDigit%2BAddition%2BLesson.doc+&cd=14&hl=en&ct=clnk&gl=us>
- This is a review lesson on the concept of two digit addition for second graders. This lesson plan engages students through the use of manipulatives and creating their own place value mat to solve certain two digit addition problems with a classmate. Students will build the addition problems with their base ten blocks to model the idea of making ten.
- [http://www.nsa.gov/academia/files/collected\\_learning/elementary/arithmetic/Two\\_Digit\\_Addition\\_at\\_the\\_zoo.pdf](http://www.nsa.gov/academia/files/collected_learning/elementary/arithmetic/Two_Digit_Addition_at_the_zoo.pdf)
- This website is a great resource for second grade teachers because it provides them with three lesson plans on two digit addition. In these three lesson plans, the students will use manipulatives as well as the standard algorithm to determine the sum of two-digit whole numbers with regrouping. It also provides the teacher with the appropriate worksheets for each lesson.
- <http://users.manchester.edu/Student/WKStarnes/ProfWeb/C5-WaystoAddLessonPlan.pdf>
- This is a review lesson on the concept of two digit addition for second graders. In this lesson, the second grade students will accurately solve the addition problems using either paper and pencil or mental math, verified by the teacher when working with students as a class and individually. Students learn how to add two digit numbers using the Hundred Chart.

# Two Digit by Two Digit Addition Games and Activities



- <http://www.youtube.com/watch?v=OOcclZ8ucrU>
- This is a great video on YouTube that teaches second grade students how to add a two digit number by a two digit number.
- <http://www.math-play.com/soccer-math-adding-two-digit-whole-numbers/adding-two-digit-numbers.html>
- This is a second grade activity that involves adding a two digit number by a two digit number. The students practice this exercise to build their math skills. In this game, the student has to correctly add two-digit numbers in order to kick the ball and score points.
- <http://www.greatschools.org/worksheets-activities/5398-adding-2-digit-numbers.gs>
- This website provides the second grade teacher with a printable worksheet that contains multiple problems in which the children can practice adding two digit by two digit numbers.

# Manipulatives

- [http://www.glencoe.com/sites/common\\_assets/mathematics/ebook\\_assets/vmf/VMF-Interface.html](http://www.glencoe.com/sites/common_assets/mathematics/ebook_assets/vmf/VMF-Interface.html)
- This website is a great resource for teachers because it provides many manipulatives that can be used in the classroom (according to each grade level).
- [http://www.eduplace.com/kids/mw/manip/mn\\_k.html](http://www.eduplace.com/kids/mw/manip/mn_k.html)
- This website is a great resource for kindergarten teachers because it provides simple manipulatives that can be used to teach young children about addition (i.e. counters).
- [http://nlvm.usu.edu/en/nav/topic\\_t\\_1.html](http://nlvm.usu.edu/en/nav/topic_t_1.html)
- This website is a great resource for teachers because it provides a library of virtual manipulatives for number and operations (i.e. addition).

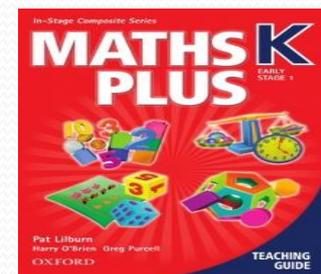
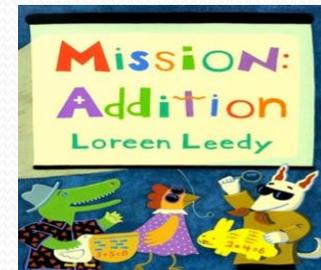
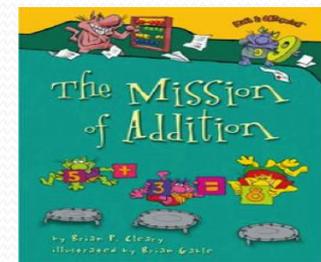
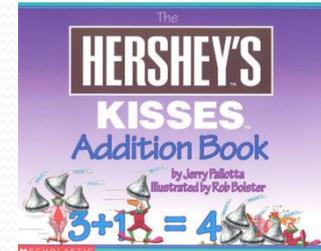
# Parent Resources

- <http://www.pbs.org/parents/cyberchase/math-fun-more/using-math-at-home/>
- This website is a great source for parents to use because it provides them with activities that they can do with their child at home.
- This website also provides them with tips on how to develop their child's math skills.
- <http://www.vivajuegos.com/juegos-de-memoria/sumas-con-ben-10.html>
- This website is a great resource for the Spanish speaking parents. It provides them with interactive activities that they can do with their child at home.
- <http://www.kidsmathgamesonline.com/>
- This website is another great source for parents to use because it provides them with games, activities, and homework helpers that they can do with their child at home.

\*\* These websites are all about the topic of addition for students in kindergarten, first, and second grade.

# Children's Literature

- The Hershey's Kisses Addition Book
  - Author: Jerry Pallotta
  - Illustrator: Rob Bolster
- The Mission of Addition
  - Author: Brian P. Cleary
  - Illustrator: Brian Goble
- Mission Addition
  - Author: Loreen Leedy
  - Illustrator: Loreen Leedy
- Math Plus Teaching Guide Book
  - Kindergarten; Third Edition
  - Authors: Pat Lilburn, Harry O'Brien, and Greg Purcell



# Kindergarten Math TEKS

- (3) Number and operations. The student applies mathematical process standards to develop an understanding of addition and subtraction situations in order to solve problems. The student is expected to:
  - (A) model the action of joining to represent addition and the action of separating to represent subtraction;
  - (B) solve word problems using objects and drawings to find sums up to 10 and differences within 10; and
  - (C) explain the strategies used to solve problems involving adding and subtracting within 10 using spoken words, concrete and pictorial models, and number sentences.

# First Grade Math TEKS

- (3) Number and operations. The student applies mathematical process standards to develop and use strategies for whole number addition and subtraction computations in order to solve problems. The student is expected to:
  - (A) use concrete and pictorial models to determine the sum of a multiple of 10 and a one-digit number in problems up to 99;
  - (B) use objects and pictorial models to solve word problems involving joining, separating, and comparing sets within 20 and unknowns as any one of the terms in the problem such as  $2 + 4 = [ ]$ ;  $3 + [ ] = 7$ ; and  $5 = [ ] - 3$ ;
  - (C) compose 10 with two or more addends with and without concrete objects;
  - (D) apply basic fact strategies to add and subtract within 20, including making 10 and decomposing a number leading to a 10;
  - (E) explain strategies used to solve addition and subtraction problems up to 20 using spoken words, objects, pictorial models, and number sentences; and
  - (F) generate and solve problem situations when given a number sentence involving addition or subtraction of numbers within 20.

# Second Grade Math TEKS

- (4) Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve addition and subtraction problems with efficiency and accuracy. The student is expected to:
  - (A) recall basic facts to add and subtract within 20 with automaticity;
  - (B) add up to four two-digit numbers and subtract two-digit numbers using mental strategies and algorithms based on knowledge of place value and properties of operations;
  - (C) solve one-step and multi-step word problems involving addition and subtraction within 1,000 using a variety of strategies based on place value, including algorithms; and
  - (D) generate and solve problem situations for a given mathematical number sentence involving addition and subtraction of whole numbers within 1,000.