



PUZZLES!

Overview	Students will practice their skills of adding and subtracting numbers by using Sudoku puzzles.
Classroom	3 rd grade Mathematics
Length of Unit	1-2 days
Objective	Students will be able to complete Sudoku puzzles by themselves or with a partner. They will practice their addition skills and subtraction skills by solving the Sudoku puzzles. By doing so the students will better understand the relationship between addition and subtraction.
Materials Needed	<ul style="list-style-type: none"> • Sudoku Puzzle Books • Pencil and Paper • Computer with Internet access
Standards	Standards 3.2.1, 3.2.2, 3.3.3, 3.3.4
Procedure	<p>Allow the students to watch a video pertaining to puzzles online at http://www.ted.com/talks/scott_kim_takes_apart_the_art_of_puzzles.html either before they begin their Sudoku puzzles or after. After the video, students are encouraged to talk about the types of puzzles and ideas discussed in the video (i.e. what they found interested, did not understand, seemed to complicated, etc). To begin the lesson, students can be paired into groups of two to complete their puzzles or complete the puzzle without a partner.</p> <ul style="list-style-type: none"> • Explain the rules and objectives of Sudoku to the students • With the entire class, go through an example of the puzzle in order to ensure the students understand what they are to do. • The students will complete two puzzles and then the teacher will check to make sure each are correct before the students can move onto more puzzles. If the students are struggling, you can give them practice addition and subtraction problems to refresh their memory of numbers and their relationships. • After each student has completed two puzzles successfully, pair the students up with a partner so that each student has a partner and is not working by themselves. Tell the students that the first three groups to complete the puzzle with the fastest time will win a small prize. • Give the students as much time as they need until three groups are finished. Their puzzles must be correct to win. Give the three groups small prizes and then give candy, pencil, sucker, etc to the rest of the class, congratulating them for their hard work.

After the puzzle activity, you can give the students time to play math games or puzzle games on the computer if you choose. Here are some recommended sites:

- <http://www.thekidzpage.com/learninggames/index.htm>
- <http://pbskids.org/games/puzzles.html>

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