

LESSON PLAN

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| Grade(s) | Third grade |
| Content Area(s) | Math |
| Topic of Lesson | Teaching the definition of subtraction, the different ways of solving subtraction problems, some hints to use while solving subtraction problems, and a quiz. |
| Three Objectives | <p>Students will be able to identify subtraction problems when presented with them. When given 5 examples of subtraction problems mixed in with an addition problem on a worksheet, students will be able to identify the 4 out of 5 subtraction problems by pointing to them.</p> <p>Students will be able to decide how to solve the subtraction problem from a few different ways. When deciding on how to solve subtraction problems, students will be able to choose specific methods based on the difficulty of the problem. If students have an easier subtraction problem, they will know to use the simplest and easiest method. The students will be able to recognize a harder subtraction problem and explain the method they will want to use, the easiest method, on a worksheet.</p> <p>Students will have the ability to work on their subtraction skills and improve their abilities. The students will be able to show an improvement of subtraction skills by being able to complete a worksheet in a faster time with an increasing amount of correct answers.</p> |
| Technology standard | <p>Standard 1. Demonstrate proficiency in the use of computers and applications, as well as an understanding of the concepts underlying hardware, software, and connectivity.</p> <p>Exploratory Skills and Expectations: Basic Operations</p> <p>G3-5: 1.3 Use various operating system features (e.g., open more than one application/program, work with menus, use the taskbar/dock).</p> |
| Curriculum Framework | <p>>Massachusetts Curriculum Framework for Mathematics >Mathematics, Grades Pre-K – 12 >Grade 3</p> <p>Number and Operations in Base Ten 3.NBT Use place value understanding and properties of operations to</p> |

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| | <p>perform multi-digit arithmetic.20</p> <p>Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.</p> |
| <p>Materials needed</p> | <p>I will need a projector and access to a computer for the website, with internet access. I will also need a white board or a smart board to help demonstrate additional information, if need be.</p> <p>The students will need work sheets and/or a white board to use for their own work. They will also need writing utensils.</p> |
| <p>Lesson Procedure, Web Site Use, and Technology Standard Instruction</p> | <p>This website was created to help students with subtraction. First, we start on the “Definition of Subtraction” page. On this page it will help explain the importance of subtraction and some basic uses of subtraction in our daily life. The students should already be familiar with the definition and importance of subtraction, so this page should be used as a repetition and a warm up for the lesson.</p> <p>That will lead us into the “Different Ways to Solve Subtraction” page. On this page, there will be several different techniques to solve subtraction problems with. This includes, but is not limited to, the standard horizontal way, the stacking method, and the solving subtraction by using addition. After the students have learned some different ways to solve subtraction, they can move onto the page that is titled “Tricks”. This page provides some handy tips and tricks in solving subtraction, and will hopefully have the students finish problems faster and easier.</p> <p>After the tricks page, the students can go onto the “Quiz” page, which will give the students a quiz to see their improvement in subtraction. The quiz consists of 5 multiple choice subtraction problems. Each question asks the students to use specific methods of subtraction that they have seen on the website. If a student clicks on the wrong answer, they will be sent to a page that will notify them that they got the wrong answer with a link to the content page that correlates to the specific method of subtraction that they were asked to use. If a student answers the correct answer, then they will be sent to a page that notifies them that they are correct with a link that will send them back to the quiz to continue.</p> <p>This website is very easily navigated, but there will also be an animated wizard (a Voki), that will help the students along the website and guide them throughout the whole thing.</p> <p>This site will help introduce subtraction, since it gives the definition of subtraction, but it will also be a very useful website in reviewing and practicing subtraction. It might be very helpful if the students already have a basic knowledge and understanding of subtraction, then the website is</p> |

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| | <p>used to help further the students' skills in subtraction.</p> <p>Also with this site, it will help teach the students the technology standard in opening multiple windows and programs. The website will contain links that will send the students to new windows, and this will be explained and the technology standard will be taught upon encountering the first link. This is because the website will continue to be up, but they will be redirected on an additional page to subtraction games. This means the students will have multiple windows open and the technology standard will teach them to navigate through them.</p> |
| <p>How will students be assessed?</p> <p>How will you know if students have met the objectives stated above?</p> | <p><u>Objective 1</u>: Students will be able to identify subtraction problems. <u>Assessment 1</u>: There will be a number of math problems on the bottom of the "Definition of Subtraction" page, including some addition, subtraction, multiplication, and addition. There will also be word problems that they will need to identify if they are subtraction. The students will have to identify which problems are subtractions. This will show that they are able to identify subtraction problems.</p> <p><u>Objective 2</u>: Students will be able to decide how to solve the subtraction problem from a few different methods. <u>Assessment 2</u>: The students will be given several subtraction problems on the bottom of the "Different Ways to Solve Problems" page, and they can choose which strategy or technique they will use on the subtraction problems. But, once a student has chosen one technique for a problem, they are not allowed to use that technique again, and they will have to choose a different method of solving the subtraction problems.</p> <p><u>Objective 3</u>: Students will have the ability to work on their subtraction skills and improve their abilities. <u>Assessment 3</u>: the students will be provided with subtraction problems and they will have the option to be timed while solving the equations. Hopefully the students' times improve after practice.</p> |