1st Grade Math Lesson Plan

Overview:	Students will use technology to enhance their learning for math
Subject:	Introducing Commutative Property
Grade Level:	First Grade
Materials:	iPads, index cards with QR codes to have students find partners, worksheet of image with addition & subtraction equations to complete, SmartBoard (or ELMO if the SmartBoard is not working), Google Slides.
Vocabulary:	*Commutative*- numbers can be added in any order (i.e. 2+3=5 or 3+2=5) *Addition*- combining two numbers together to create a number bigger than the starting numbers *Subtraction*- taking a smaller number away from a larger number to arrive at an answer
Objectives:	Students will be able to identify that addition equations can be switched around and still equal the same number (commutative property). Students will be able to use technology to identify who their partners are.
ISTE:	1. Empowered Learner Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences. Students: c. use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.
CCSS:	Understand and apply properties of operations and the relationship between addition and subtraction. CCSS.MATH.CONTENT.1.OA.B.3 Apply properties of operations as strategies to add and subtract.2 *Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.)*
Set up:	Have QR codes pre made and fitted to index cards to hand out to assign partners. Have website loaded on internet where students will be coloring the worksheet, worksheet created with copies for each student. We will have printed copies of the materials if needed, in case the SmartBoard isn't working and we will use the ELMO projector.

Set up (cont.):	Prior to class, QR codes have been created and printed and glued on index cards. Through this, students will scan the code and answer the math problem that pops up. They will find their partner by seeing whose sum equals the same number. Have Google Slides displayed on the screen.
Step 1:	Begin class by sharing the Google Slide and going over review equations. Hand out Index card QR codes and have students solve the equations to find their partner. Once students find the sum of their equation and the other student who has the matching number, have them pair up. Once they are sitting together, have assistant teacher collect iPads (5 mins)
Step 2:	Once everyone is with their partner, introduce students to the new vocabulary with Google Slides. We will have the Google Slides displayed on the SmartBoard to answer the questions with the students. (5-10 mins)
Step 3:	Do four examples together as a class. As soon as students are grasping the concept, hand out the worksheet of the image that the students will be solving and coloring in. Explain what they are to do, and they can work with their partner to solve the equations. The worksheet has several equations to solve, making it like a color by number. Students are to solve the equations with their partner and once they complete the worksheet, they are to show one of the teachers to have them check it. Once it is checked, they will go to the board and color in one spot with a corresponding number to an equation that they solved. (10 mins)
Step 4:	As students finish, if there are other students still working, they will turn their sheet over and write down a few examples of their own commutative equations. As they come up with them, they can write one on the board to share with the class! (5 mins)
Conclusion	As a class we will go over the equations the students came up with.

References:

Color Sheets Retrieved from:
http://coloritbynumbers.com/online

Common Core State Standard. Retrieved from:
http://www.corestandards.org/Math/Content/1/OA/

ISTE Retrieved from:
http://edu315a.weebly.com/uploads/4/0/4/9/4049814/iste_standards_for_students.pdf

QR Codes Retrieved from:
https://www.qrstuff.com/