TP2 Lesson Outline: 20 minutes

Date March 31, 2016 Time 8:10-9:05	Subject: math Grade: 4	Topic: measuring areas	Name: Hajood Abdulwahed 20145082
Context: *Place your lesson in the context of what has been taught in previous lessons, and in context of the structure of the class in which this lesson takes place*	Students previously learned about the area, its unit and how to measure it by counting the number of squares back in the third grade. Students learned in previous lessons that in a rectangle, opposite sides are congruent and in a square, all the sides are congruent. They also learned that a square is a rectangle that all its sides are congruent. Students learned in previous lessons and in grade 3 about multiplying numbers. My teacher will start the period by giving the students a starter activity, then my part will begin.		
Objective *Specific, appropriate…..*	By the end of this 20 minute lesson, students will be able to measure the area of the square and the rectangle using their area formulas.		
Summary *what will happen within the 20 minute time*	I will start after the starter activity, will do a revision of the definition of the area and its unit, and then I will use their previous knowledge of how to count area to conclude a law to use in counting the area. Lastly, I will give some questions that students should solve individually on their mini board.		
Materials *Pictures, items, books…*	Smart notebook presentation, smart board, students' mini boards, markers.		
TEACHER actions and words *Statements of exactly the actions.* *Write the exact sentences and questions that will be used to motivate, teach, respond, and assess understanding.*		STUDENT expected actions and possible responses *Describe exactly what you expect the students to do.* *Write the possible responses to prompts and questions.*	
● Now let's start with our lesson. The presentation will be going on in sync with the flow of the lesson. ● You learned about the perimeter of the square and the rectangle last lesson, and today we will be learning about their areas.			

● **Who can tell me what do we mean by the term "area"?** I will choose one of the students who raise his hand, and if there were no one raising their hands I will choose randomly from their names. If there were no answers, I will tell them the meaning.	"How big the thing is, the surface of a shape, the inside of a shape,etc"
● After that I will ask: **can someone give us an example of an area in our classroom?** I will take several answers, and in each time I will ask the students if it was right or not. I will make sure that curved areas are included in the examples too.	"Window, table, board, clock, door, floor, walls, Etc"
● I will ask: **how is the perimeter different from the area?** And after taking several answers, I will show a picture of a circle and what a perimeter and area represent on it. Then to fully insure that everyone got the idea I will present a picture of a shape and I will say like what we said, here the borders represent the perimeter, when we want to paint it; the amount of paint that will cover this shape represent the area.	"The area is inside and the perimeter is around it, the area is bigger, the perimeter is the borders ...etc."
● Then I will distribute a group activity (every four students) on the students and I will ask them to find the height, width and the area of the given rectangles and squares and it will be for 5 minutes of work.	
● Then I will display the same shapes in different slides on the board and will answer the activity all together. In each slide I will ask: **what did you noticed in the relation between the height, width and the area?** I will take several answers and if no one gave the correct answer I will ask: **what if we had a square or a rectangle that is too big you can't count the**	"The area is bigger than the height and the width, the area is the product of the height in the width ….etc." "We will multiply the height with the width, we will count them anyway, etc."

number of squares in it, but you have their height and width, what could you do? ● Then together with the students we will conclude the laws of area for the rectangle and the square. And I will repeat them out loud. ● Then each student should take out his mini board and count the area of different squares or rectangles that would be shown on the board and I with the students would make sure of the answer using a flash program for counting the areas of squares and rectangles using their areas' formulas.	