Describe audience, context, constraints:
The audience in my lesson plan will be my Grade 5 Title I Math group. The group consists of 4 students, 2 boys and 2 girls. They are currently reviewing all concepts learned this year in their math classroom to prepare for the OAA. This project will incorporate a few different standards that they have already learned so that they can see how different topics relate to one another. My constraints are that I am a Title I Math teacher, so I only pull groups of students, not whole classes. I am also constrained on time; I only see them twice a week normally, for 30-45 minutes at a time.

Objectives/Indicators
Our school has transitioned to the Common Core State Standards. The math standards for this lesson include:

5.NBT.4: Understand the place value system: Use place value understanding to round decimals to any place.

5.NBT.7: Perform operations with multi-digit whole numbers and with decimals to hundredths: Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, an/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

5.MD.1: Convert like measurement units within a given measurement system: Convert among different-sized standard measurement units within a given measurement system, and use these conversions in solving multi-step, real world problems.

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1.b. Create original works as a means of personal or group expression
3.a. Plan strategies to guide inquiry
3.b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
4.a. Identify and define authentic problems and significant questions for investigation.
4.c. Collect and analyze data to identify solutions and/or make informed decisions.

Prior Knowledge/Prerequisites
The students must be familiar with how to read a recipe, how to convert measurements within the same system to make a grocery list of needed ingredients, how to round prices to find the total money needed for purchasing ingredients for the recipe. They also need to know basic computer skills to be able to search online and create a Prezi to showcase their work.

Identify and Discuss Pedagogical Decisions

Assessment
Pre-Assessment: For this project, my pre-assessment will include looking at the students past scores in math class on the topics we are covering. The data will be used to make sure that they understand the math work needed for this project and will be successful in the computations needed. If the students need a refresher on these topics, looking at their past scores will help make that decision.

Formative and Summative Assessments
How will you evaluate the students? I will grade the students on:
Choosing a recipe that includes at least five ingredients (5 points for participation)
Creating a shopping list (5 points for accurateness)
Budgeting activity (15 points for computing cost of ingredients and staying within budget)
Final presentation (Prezi)

Students will show the process of finding a recipe, listing the ingredients shown on recipe, calculating the amounts needed to buy to have enough to make the recipe, and computing the amount of money needed to buy the ingredients (and staying within the budget). (5 points for showing each of those listed, and then 10 points for creativity in presentation. Total=30 points)

Why have you chosen these methods? I have chosen these methods because they include all of the essential skills the students need to have to complete this project. It is a combination of formative and summative assessments throughout the project so that the students’ grade is not just reflective on the final product but the entire learning process of creating it.

Is technology used for or included in the evaluation process? Technology is used to help students find recipes, search for prices of ingredients, and possibly coupons if they go over their budget. Technology is also used in the final evaluation (end product: Prezi).

How will you share data with students/others and why? I can share data with others by posting the Prezi’s online and sending the link to the classroom teacher. Then the entire class can see the project that my students worked on. This is an important step in the process because it shows the students the importance of communication and why we did this project. It could be shared with others and be a useful tool for someone trying a recipe for the first time.

Models of Instruction/Instructional Strategies
There are a few different instructional strategies used in this lesson plan. The students have choice in what their project will be on; they get to choose their own recipe. I will model all of the steps of their project, so they know what is expected of them. This lesson is also a scaffolded lesson, because it is based off of concepts that the students have already learned this school year. The students will be working individually and as a small group. I will encourage them to help each other to create their projects, because this is the first time we will be doing a project like this.

Procedures/Activities
What activities have you planned? Include detailed description of the activities and how the resources are being used to support learning.
Choosing the recipe: This activity will be done first individually by the students. The students will brainstorm what type of recipe they want to do their project on. After they have an idea in
mind, they will search for a recipe online and print out the recipe to base the rest of their project on. Because I only have one computer in my room, each student will have to take turns using the computer. Searching the internet is supporting learning by enabling the students to be self-sufficient and locate information on their own.

Creating the shopping list: The students will make a shopping list based on the ingredients needed in their recipe. This supports real life needs, of creating a shopping list based on the quantities needed.

Budgeting Activity: The students will need to look at paper ads from grocery stores, and online ads, to find how much their ingredients will cost. The students will use mathematics to figure out how much it will cost to make the recipe once. Then, they will see how many times they can make it with a budget of $50.00 (or how many servings they can make within the budget). Also, they should include how many servings they would need for their family and how much that would cost. Students learn how to research and find specific information on products that they need to make their recipe.

Final Presentation (Prezi): Students will work individually on their presentations. Due to the lack of having enough computers for each student, they will start by making a rough draft of their Prezi on paper. Then when they are ready, they will work on the computer one at a time to create their Prezi. Their presentation should include the recipe that they used, how many ingredients they need/pictures of the ingredients, the shopping list, a visual of how they found out how much it will cost to buy the ingredients and make their recipe, and then a conclusion paragraph about how this project can be useful in everyday life. The final presentation supports student learning in a variety of ways. It shows the students that there is a purpose for the whole project, and ties all of the activities together. They will also be able to share their work (communicate/collaborate) with other students.

Identify and Discuss Technological Decisions

Resources
Common Core State Standards: [http://www.corestandards.org/Math/Content/5/NBT](http://www.corestandards.org/Math/Content/5/NBT)

ISTE NETS-S: [http://www.iste.org/standards/nets-for-students](http://www.iste.org/standards/nets-for-students)

Teachers First Lesson Plan that I based my lesson off of/got ideas from: [http://www.teachersfirst.com/winners/shopdrop.cfm](http://www.teachersfirst.com/winners/shopdrop.cfm)

What resources do you need to support the activities?
- Computer with internet access
- Printer
- Shopping lists and budgeting worksheets and paper for brainstorming ideas
- Grocery ads from the newspaper
- Online ads for grocery prices
- Prezi
How do the resources help students achieve the objectives?
The resources help achieve the objectives by enabling them to find information on their own. They can create the list from the recipe, and create the budget from the list using the grocery ads. Then the Prezi presentation is essential for their final presentation.

**Technology Resources**

Why the technology was chosen:

Internet search for recipe was chosen so that students can independently find their own recipe for their project. It also will help them increase their computer skills. Online grocery ads may be used if the paper ads do not have all of the ingredients needed by the students. Prezi was chosen as the final presentation because it is simple for the students to learn how to use, and it can display the work that they have done for the project in a chronological way.

How the resources help students achieve the objectives:

The technology resources help the students achieve the objectives by being an interactive, up to date, source of information. They can find new recipes online and current costs of groceries. The Prezi enables the students to display their work in an effective way that makes sense with the format of the project.

How the use of technology for evaluation will be used:

The students will be evaluated on their Prezi. It will need to incorporate all of the activities in the project. They will create a Prezi to include all of the activities, in chronological order. This is one of the most important things in evaluation of this project, because Prezi was chosen for that reason. They will be evaluated on their final project based on a rubric.
Lesson Reflection
Discuss your thought process in the development of this lesson. After learning about TPACK how has this knowledge influenced the way you developed this lesson?

How is the development of your planning with the use of technology changed in terms of how you integrate technology into your classroom?

How do you measure the impact that technology has on your student learning?

If you will not be able to actually implement this lesson, write a scenario of what you predict will happen when the lesson is implemented. Include a student sample product and what you predict your data collection will look like.