Lesson Plan Template

| Grade: Algebra I |  | Subject: Math |
| :---: | :---: | :---: |
| Materials: Computers/iPads |  | Technology Needed: Computers/iPads |
| Instructional Strategies: <br> Direct instruction <br> Peer teaching/collaboration/ <br> Guided practice cooperative learning <br> Socratic Seminar <br> Visuals/Graphic organizers <br> Learning Centers PBL <br> Lecture <br> Discussion/Debate <br> Technology integration <br> Modeling <br> Other (list) <br> Standard(s) <br> HS.F-BF. 3 <br> Objective(s) <br> By the end of the period the students will be able to identify the effect on the graph of replacing $f(x)$ by $f(x)+k, f(x+k)$, $k f(x)$, and $f(k x)$ for specific values of $k$. <br> Bloom's Taxonomy Cognitive Level: <br> Analyze <br> Evaluate <br> Create |  | Guided Practices and Concrete Application: Large group activity Hands-on Independent activity Technology integration Pairing/collaboration Imitation/Repeat/Mimic Simulations/Scenarios Other (list) <br> Explain: |
|  |  | Differentiation <br> Below Proficiency: <br> Have the chart done, with no understanding of what it means |
|  |  | Above Proficiency: <br> Can remember what each transformation does without question. <br> Approaching/Emerging Proficiency: <br> Student can remember what a few of the transformations do without question. <br> Modalities/Learning Preferences: |
| Classroom Management- (grouping(s), movement/transitions, etc.) Students will be given instructions on what their assignment is and then they will be able to break off into groups to work on the assignment. |  | Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.) <br> Students need to not scream across the room during this exercise, but cooperation is encouraged. |
| Minutes $\quad$ Procedures |  |  |
| 10 | Set-up/Prep: <br> Get laptops or computers for the students to use. Review the material |  |
| 10 | Engage: (opening activity/ anticipatory Set - access prior learning / stimulate interest /generate questions, etc.) <br> I will look to engage the students by asking them, "Can someone come up and draw the graph of $\mathrm{x}^{\wedge} \mathbf{2}$ for me? How about $\mathrm{x}^{\wedge} 3$ ?". After two students do that, I will ask them, "So, these are the standard forms of the graph. Can anyone tell me how to write a function for the graph that is up 2 or to the right 4? This is what you are going to learn today. |  |
| 10 | Explain: (concepts, procedures, vocabulary, etc.) <br> I will give the class the six different transformations and The homework page will have three columns with the fi out the second column. The third column will be filled o instructed to make sure they are not just using up down definition. | what they can come up with for what each one does to a function. ne filled out with the transformations and they will be tasked to fill ogether as that one is a little more confusing. The students will be or right but are using the idea of what the variable is in the |
| 15 | Explore: (independent, concreate practice/application experiences, reflective questions- probing or clarifying q Students will be given time to see what transformations students have the correct things down and then fill out | relevant learning task -connections from content to real-life stions) <br> to functions. We will review what they put down to make sure the third column using the second as a reference. |
| 15 | Review (wrap up and transition to next activity): After we go through the chart, I will let them use that a questions are application based. They will be able to ch | other to work on the problems on the back page. These heir work on the graphing utility. |
| Formative Assessment: (linked to objectives) <br> Progress monitoring throughout lesson- clarifying questions, check- in strategies, etc. <br> While the students are working, I can walk around the classroom and see if they are making the connections and understanding what each transformation does. |  | Summative Assessment (linked back to objectives) <br> End of lesson: They would have completed the chart showing what each transformation does to the function and have the homework exercises completed. <br> If applicable- overall unit, chapter, concept, etc.: |

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Consideration for Back-up Plan:
Graphing calculators could be used instead of the computers or iPads, but often those don't have colors for the lines.

Reflection (What went well? What did the students learn? How do you know? What changes would you make?):

