Lesson Plan Template

Grade: 11

Subject: Algebra II

Materials:

Technology Needed: Doc Cam

Instructional Strategies:

- ☐ Direct instruction
- ☐ Guided practice
- ☐ Socratic Seminar
- ☐ Learning Centers
- ☐ Lecture
- ☐ Technology integration
- ☐ Other (list)
- ☐ Peer teaching/collaboration/ cooperative learning
- ☐ Visuals/Graphic organizers
- ☐ PBL
- ☐ Discussion/Debate
- ☐ Modeling

Guided Practices and Concrete Application:

- ☐ Large group activity
- ☐ Independent activity
- ☐ Pairing/collaboration
- ☐ Simulations/Scenarios
- ☐ Other (list)
- ☐ Hands-on
- ☐ Technology integration
- ☐ Imitation/Repeat/Mimic

Explain:

Standard(s)

HS.FIF.7*:

a) Graph linear and quadratic functions and show intercepts, maxima, and minima where appropriate.

b) Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions.

Objective(s)

Students should be able to interpret a graph of a piece-wise function

Students should be able to take an input and give the correct output correlating to the correct equation of a piecewise function

Bloom's Taxonomy Cognitive Level:

Differentiation

Below Proficiency:

Students use incorrect equation when given an input. They also can misinterpret the idea of open or closed circle in a graph; this misinterprets the graph.

Above Proficiency:

The student can complete the assignment quickly and easily, asks clarifying questions during and after lecture, and can see the applications of piecewise functions. They may already form a rough idea on how to graph piece-wise.

Approaching/Emerging Proficiency:

Student is able to utilize the correct equation with only minimal algebraic mistakes. Student is able to properly interpret graphs

Modalities/Learning Preferences:

Auditory and visual

Classroom Management- (grouping(s), movement/transitions, etc.)

-Ripple effect

-Proximity

-multiple modalities

Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.)

-I expect students to work when the assignment is handed out and for them to ask any questions as they arise

-I expect students to take notes, be respectful during instruction, and utilize the notes and examples during independent work

Minutes	Procedures
	Set-up/Prep: Make sure the Doc Cam works correctly and is streaming to the board and online students.
	Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.) As this is my last lesson in Mrs. Hintz's class, I will begin with a fun story about Archimedes. I will emphasize the "eureka" story and the story of his death. I will then give them a pretest on piecewise functions.
	Explain: (concepts, procedures, vocabulary, etc.) I'm going to show a beginning example of f(x)=constants graphically and then algebraically; emphasize how important it is that the intervals do not overlap. Add examples of one with a quadratic and linear equation and one with absolute values and two functions.
	Explore: (independent, concreate practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions) This will be an assignment they are given to work on in class while me and Mrs. Hintz walk around and help as needed.
	Review (wrap up and transition to next activity): There will be an exit question to check for understanding compared to the pretest.

Formative Assessment: (linked to objectives)

Progress monitoring throughout lesson- clarifying questions, check-in strategies, etc.

Summative Assessment (linked back to objectives)

End of lesson:

There will be an exit question to check for understanding compared to the pretest.

If applicable- overall unit, chapter, concept, etc.:

If they are not responding to questions, I will likely continue on that problem until I feel they have understanding. **Consideration for Back-up Plan:**	

Reflection (What went well? What did the students learn? How do you know? What changes would you make?):
The students understood the idea of piecewise functions algebraically, but they struggled immensely with the graphing problems. Ideally, I would teach a lesson tomorrow on just interpreting a piecewise graph. If I were to teach this lesson again, I would only add another example of a graph and focus on it much longer. The pretest to posttest were great markers of how the students felt; the pre's average was less then one question correct while the post's average was roughly 4 out of 7. The post test showed that most every student fully understood all of the algebraic problems. I'm glad I decided, halfway through, to emphasize the process I want them to follow step by step.