Student Teacher Candidate: Annika Schul

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| Sensory Register | STM | LTM |
| Attention  Recognition  Perception | Focus  Organization  Rehearsal  Visualization | Connections  Elaborations  Meaning |

*Facets of Understanding*

1. Explanation
2. Interpretation
3. Application
4. Perspective
5. Empathy
6. Self-Knowledge

*Multiple Intelligences*

1. Linguistic [words]
2. Visual [pictures]
3. Mathematical [numbers & reasoning]
4. Kinesthetic [hands-on]
5. Musical [music]
6. Interpersonal [social]
7. Intrapersonal [self]
8. Naturalist [nature]

*Multiple Exposures [4 x 2]*

1. Dramatization
2. Visualization
3. Verbal

*Complex Interactions*

1. Discussion
2. Argumentation

*Bloom’s Taxonomy*

1. Knowledge [Verbatim]
2. Comprehension [Own Words]
3. Application [Problem-Solving]
4. Analysis [Identify components]
5. Synthesis [Combine information]
6. Evaluation [Decisions]

*Aspects of the Topic*

1. Facts
2. Compare
3. Cause/Effect
4. Characteristics
5. Examples
6. Relationships

*9 Effective Strategies*

1. Similarities and Differences
2. Summarization and Note Taking
3. Reinforcing Effort and Providing Recognition
4. Homework and Practice
5. Nonlinguistic Representations
6. Cooperative Learning
7. Setting Objectives and Providing Feedback
8. Generating and Testing Hypotheses
9. Questions, Cues, and Advanced Organizers

Amy Nelson, Spring 2010

Lesson Subject(s)/Title: Mathematics, Coordinate Plane

Lesson Date(s): October 24th, 2018

Course & Grade(s): 7th Grade Learning Support Mathematics

**INSTRUCTIONAL MATERIALS:**

Video

Chrome Books: IXL& Khan Academy

Quiz

Supplemental Reference Guide

Calculators

Pencil

Highlighter

**ESSENTIAL QUESTIONS/ SUBSIDIARY QUESTIONS:**

What is a coordinate plane?

How do we graph a coordinate pair?

Which axis is the X axis?

Which axis is the Y axis?

**PURPOSE:**

The purpose of the lesson is to introduce students to coordinate planes with the concepts of graphing, ordered pairs, and being able to solve word problems with little to no extra assistance from the teacher.

**SPECIFIC LEARNING OBJECTIVES: (clear, observable)**

Students will be able to identify an x and y coordinate pair on a graph, and also be able to write the x and y coordinate pair from the graph through a variety of activities to give students practice with to become proficient in with no extra assistance from the teacher.

**STANDARDS:**

Subject Area: Mathematics

Eligible Content:

[**6.NS.A.1**](https://www.khanacademy.org/commoncore/grade-6-NS#6.NS.A.1)

Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem.

[**6.NS.A.1**](https://www.khanacademy.org/commoncore/grade-6-NS#6.NS.A.1)

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**DIFFERENTATION STRATEGIES:**

The strategies within this lesson plan are already modified and adapted to meet the needs of each individual learner in the classroom. It is a small group setting to allow each student to be able to have one on one teacher assistance.

Modifications for one learner: extended time on quiz, videos on his own laptop, placed closer to the teacher, one on one assistance, reduced amount of problems

**ANTICIPATORY SET:**

<https://www.youtube.com/watch?v=vvv-tATwdTA>

The teacher will introduce the lesson by playing a YouTube video for students to view on coordinate plane graphing. Students participate in flipped classroom for ELA, so the style of the video matches what instruction they receive in ELA, as it is effective for this group of students. After the students have viewed the video, the teacher will go back through and explain things again for a multiple exposure and as an added benefit for auditory learners.

**INPUT/ ACQUIRE NEW KNOWLEDGE:**

The teacher will begin this part of the lesson by instructing students to get out all supplies needed for the lesson: Chrome Books, Pencil, Highlighter, and Calculators. The supplemental reference guide will be given to students at this point for them to utilize while they complete their work. Students will first participate in Khan Academy as a large group with the teacher directing the learning on the board. Upon completion of the instruction about coordinate planes, students will move into working on their own.

**and/or**

**APPLY/ DEEPEN NEW KNOWLEDGE:**

Students will now work independently on IXL. IXL 6.X.4 will be utilized. This particular IXL takes the concept of coordinate planes and graphing and turns it into coordinate planes as maps. Students will apply real world skills here by answering questions about the shortest route to a grocery store, and the most effective way to go based on direction. Students will give their answers in the form of and X and Y coordinate pair.

**CLOSURE/ASSESSMENT:**

Quiz on coordinate planes and graphing. Students will independently complete the quiz and turn it in to the teacher.

**HOMEWORK: (Purpose- Preparation, Practice, Expansion)**

No homework will be given after this lesson.

**EVALUATION/ASSESSMENT OF STUDENTS:**

Students will be assessed through multiple means. Informal assessments will be taken and gathered by the teacher throughout the duration of the lesson. The closure will be used as a more formal means of assessment for students to see if students grasped the concept or not.

**INSTRUCTIONAL PROCEDURES:**

**Time:** 50 Minutes

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| --- | --- |
| The teacher will:   1. Introduce the lesson with the set: video on YouTube. Pass out paper that goes along with the video. 2. Review the paper and vocabulary from the video. Check each students paper to ensure correct information is copied down. 3. Transition to Khan Academy Video. Have students participate in the interactive parts of the video. 4. Continue and complete Khan Academy. Frequently check for student understanding. 5. Instruct students to get out chrome books and log on to IXL. 6. Give students the number of the IXL they are to complete and let them work independently. 7. Monitor progress on IXL and work with students one on one when they have questions about the material. 8. Once the students have reached 80%, transition to the last part of the lesson. 9. Closure: Quiz. Directly and explicitly go over directions for the quiz and how they are to complete it. 10. Collect completed quizzes. 11. Allow students to pack up and get ready to go home. | The students will:   1. Get out supplies needed for the lesson. View the video, write down notes and vocabulary on the corresponding paper. 2. Participate in review and make necessary changes. 3. Utilize resource to help answer the interactive questions within Khan Academy. 4. Continue and complete participating in Khan Academy video. Ask questions as needed. 5. Get out chrome books and log on to IXL to complete the module. 6. Log on to the appropriate IXL module and begin working on it independently. 7. Continue to work on IXL. Utilize the teacher and/or partner for help on questions. Ask questions as needed. 8. Raise hand once 80% has been reached on IXL and wait for directions. 9. Complete the quiz and turn it in to the teacher. 10. Turn quiz in. 11. Pack up backpack and get ready to go home. |

Ed. Department - Revised August 2012