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ET620
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Final Project Lesson Plan

I worked collaboratively on my final project with Laurie Justice. Laurie teaches high school geometry and I teach 5th grade math. While our “Stand-alone Multimedia Project” is appropriate for both groups of students, the manner in which we use them with our students will be different. For this reason, we each developed our own lesson plans. The following lesson plan is what I have developed to use with my 5th grade math students!

Lesson Title: Guide through Geometry, An interactive review to geometry!

Grade: 5th

Time: two 50 minute class periods, 30 minutes at each station, 5 minutes to introduce 5 minutes to conclude

Number of Students: 15-21

Standards:

M.5.3.12: Identifies, describes, and classifies polygons.

M.5.3.3: Identifies parallelism, perpendicularity of geometric figures and real-world objects.

M.5.3.7: Draws, labels, describes, and identifies points, lines, line segments, and rays.

M.6.3.2: Uses the properties of angles and triangles to classify triangles by side length (equilateral, isosceles, and scalene).

Objectives:

Students will identify and classify types of polygons.

Students will identify parallel, perpendicular, and intersecting lines.

Students will label and identify points, lines, line segments, rays, and midpoints.

Students will use properties of angles and triangles to classify triangles.

Each of these objectives will be met through the interactive presentation, “The Ultimate Guide to Geometry,” worksheets, and textbook exercises.

Materials:

- 7 Laptops with wireless internet service
- “The Ultimate Guide to Geometry” Macro-Enabled PowerPoint Presentation opened on each laptop
- 3 paper signs labeled with each station name and placed at each station
- Chalkboard with written with directions for each station
- List of students with a group number next to each (1,2,or 3)
- 7 copies 5th grades math textbook
- One pack of loose leaf
- 22 copies of geometry review worksheet
- 21 copies of plain white paper
- Markers and crayons
- Pencils
- Printer with at least 85 pieces of white computer paper loaded
- Timer that goes to at least 30 minutes and beeps when time is up

Overview:

In this lesson, students will travel in small groups to three different stations. Station One will have students work in pairs to complete the Geometry Diagnostic Checkpoint on page 359 of their math textbook. Station Two will have students work independently through an interactive guide of geometry! At this station students will explore key terms from four main topics of geometry and complete reviews of each topic. Station Three will have students work in a whole group manner with a teacher facilitating on a worksheet. This lesson will take place the last two days of the geometry unit. This will be a review lesson for students.

Introduction – first 5 minutes of first day of lesson

I will tell students that for the next two days they will be work in pre-assigned groups and travel to three different geometry stations. I will point to the areas of each station. Stations will be labeled with paper signs and all materials will already be set up at each station, I will have done this prior to students coming into the classroom. I will also have written directions for each station on the front chalkboard. I will tell students that when they are at Station One they will use

the text books at the table and complete the Diagnostic Checkpoint with a partner of their choice from their group. I will tell them they are to complete the Diagnostic Checkpoint on a sheet of loose leaf that is available at the station. Each student is to write their own copy of their answers. After they have finished the Diagnostic Checkpoint and have gone over their answers, they are to put their answers in the bin at the station. If they are finished before time is up then they are to draw a picture using as many geometric shapes and elements as they can using to supplies at the station. If they do not finished before time is up they are to complete the Diagnostic Checkpoint for homework. I will tell the students when they are at Station Two they are going to use the laptops to explore key terms of four main topics of geometry and complete a review of each topic. I will tell students that the laptops are already set up with the interactive guide to geometry. I will have set the laptops to run “The Ultimate Guide to Geometry” in Kiosk Mode. I will tell students that each time they complete a review they are to click on the “Print Score Sheet” button before returning to the main menu. I will tell students that once they have completed all four reviews they are to put their names on their score sheets and place them in the bin at the station. If students finish before time is called they may re-explore the program and spend more time at the interactive geometry website. If students do not complete all four reviews before time is called, they will be assessed on the reviews they did complete. I will tell students that when they are at Station Three they will be working in a whole group manner with me on a geometry worksheet. Once I have gone over each station I will give each student a number and tell them to report to the station of the number they received. I will tell students that they have 30 minutes at each station and set the timer for the first round.

Procedure:

1. Timer will be set for 30 minutes. When timer goes off, I will announce to students that they are to listen first regarding their next move and wait until I say “MOVE” before they relocate. I will tell students that if you are at Station One you are to move to Station Two, if you are at Station Two you are to move to Station Three, and if you are at Station Three you are to move to Station One. I will also tell students that they will only have 15 minutes at their next station today, and tomorrow when they enter the classroom they are to go to that station and continue to work immediately. I will then tell students to move to their next station.
2. Timer will be set for 15 minutes. When timer goes off, students will pack their things and go to their next class.
3. DAY TWO: students will enter and go directly to the second station they visited yesterday and immediately start working. Timer will be set for 15 minutes. When timer goes off, I will announce to students not to move until I say move. I will tell students that if they are at Station One they are to move to Station Two, if they are at Station Two they are to move to Station Three, and if they are at Station Three they are to move to Station One. I will tell students that the next station they go to should be the only one they have not visited. I will then tell students to move to their next station.
4. Timer will be set for 30 minutes. When timer goes off, I will conclude the lesson with students at the desks they are currently at.

Conclusion:

Once students have visited all three stations, I will bring students back together as a whole group and have a five minute discussion on what they thought of the experience. I will ask students if they enjoyed moving from station to station, if they found the interactive presentation informative, what were things they did not like about the lesson, and what some things they enjoyed about the lesson. This will allow me to assess the lesson as a whole and make necessary changes for the next time I use the lesson. This will also allow students to have closure to the lesson they partook. I will also tell students that this was a form of review for their upcoming geometry test.

Assessments:

I will assess student behavior and performance in the following ways:

- Students will turn in individual copies of their answer to the Diagnostic Checkpoint; I will look for completion and effort, as well as, the answers students provided and if they appear to understand the concepts; 10 points will be given to students as a completion grade of this assignment
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- Students will turn in printed out copies of the four reviews they completed during the interactive presentation, “The Ultimate Guide to Geometry;” I will look at the scores students received and what was the first answer students provided for each question; students will receive a score out of 24 points; each question will be worth 1 point
- Students will complete a worksheet with me in a whole group manner; I will look for participation and how the students answer each question
- Student behavior will be assessed throughout the lesson; I will assess student behavior by listening to the conversations that take place and the level of volume; I will also look at how students work with their partners at Station Two