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| Lesson Title | Geometry Jeopardy |
| Length of Lesson | 1 day |
| Created By | Kylie Nash |
| Subject | Math |
| Grade Level | 10 th – 12 th (Geometry) |
| State Standards | 9 th -12 th Geometry 4a. |
| DOK Level | DOK 2 |
| DOK Application | Compare, Make Predictions, Identify Patterns, Collect, Calculate, Understand |
| National Standards | 9 th - 12 th Geometry |
| Graduate Research Element | Applying math concepts in Industrial Engineering applications (i.e. problem solving and applying appropriate formulas) |

Student Learning Goal:

State Standards for 9th – 12th Geometry: Geometry 4a.

- (a) Solve real-world problems involving formulas for perimeter, area, distance, and rate. (DOK 2)
- (g) Describe and draw cross-sections of prisms, cylinders, pyramids, and cones (DOK1)
- (e) Classify triangles and apply postulates and theorems to test for triangle inequality, congruence and similarity.

National Standards for 9th -12th Geometry Standard:

- Make decisions about units and scales that are appropriate for problem situations involving measurement.
- Analyze properties and determine attributes of two and three dimensional objects.
- Explore relationships (including congruence and similarity) among classes of two and three dimensional geometric objects, make and test conjectures about them, and solve problems involving them.

Materials Needed (supplies, hand-outs, resources):

Projector, computer, any interactive whiteboard (Smartboard, Promethean, eBeam, PolyVision, etc.) and Jeopardy game

Lesson Performance Task/Assessment:

Students will be able to practice answering questions similar to testing material learned in the classroom. Students will get practice and experience with problems that they may encounter in an upcoming exam or nine- week’s exam. Students will practice using the Geometry Jeopardy game. Students should be able to answer questions related to topics learned in any 9-week school term.

Lesson Relevance to Performance Task and Students:



Students will be learning and studying while having fun. Students will have a competitive edge to win the game at the same time study the learned material. This activity will help strengthen math skills through an application that is familiar and fun to them. Students will learn concepts related to calculating perimeter, area, and other dimensions of polygons. Identify dimensions of symmetry. These lessons and performance tasks will strengthen the students, interest, knowledge and understanding of mathematical concepts of angle measurement and polygon shape design through the use of hands on activities to synthesize and interpret concepts learned in the classroom.

Anticipatory Set/Capture Interest:

Students will be told that they are contestants on the Geometry Jeopardy Game Show. Winners will receive prizes (candy, local prizes or points to be added to upcoming exam, etc.). The overall winner can be photographed and displayed in school paper, bulletin board etc. The Jeopardy game will be used as short review for an upcoming exam on material learned to a point.

Guided Practice:

The instructor will give an introduction to the rules and guidelines for playing Jeopardy. Students can be divided up into teams and one person from each team competes to answer the equations using the handheld dry erase boards. Each team gets a point or money amount for each correct answer. Each team member rotates in a round robin order. The team with the most points (money) wins; in case of a tie, a daily double question should be prepared.

Independent Practice:

Students will get practice working example problems and answering questions related topics learned in class using a competitive advantage. Students will solve problems and recall definitions of important topics while competing to win.

Remediation and/or Enrichment:

Remediation:

Individual IEP

Enrichment/Extension:

An alternative is to assigned numbers from a study guide to the games and allow students work out problems assigned to the dollar amount. This allows students to work out more complicated problems and after the question is answered the problems can be worked out on the board so the entire class benefits. Example, Ask student to pick a category and money amount (Student selects “Perimeter” for \$200, which corresponds to question 15 on the study guide).

Note: If more than 25 questions on study guide, prepare a second Jeopardy game.



Check(s) for Understanding:

Day One:

1. Answer any questions related to Jeopardy questions.
2. Do you have a better understanding and improved knowledge of the topics learned in the classroom?
3. Do you think that with the skills and knowledge learned through this exercise will help you be successful on the upcoming exam?

Possible Alternate Subject Integrations:

The Jeopardy game can be applied to almost any other subject (Chemistry, Physics, History, etc.)

Teacher Notes:

Jeopardy game is included.