GED 2002 Teachers' Handbook of Lesson Plans

Activity Title: Finding Areas

Goal/Objective:

Students will learn about using different area formulas that can be of help in real life Situations.

- Handout of diagram of a modern office building
- Formula page

Lesson Outline:

Prior knowledge – shape names/measurement. Finding the area of things can help you measure rooms in your house for things such as new carpet.

Introduction:

Let's list all things that you can think of that will be a helpful tool in finding the area.

Activity:

Today will begin an activity that will teach us how to find the area of different shapes. We will be ordering new carpet for rooms in a modern office building. (handout) In groups of 2 or 4, work out the area for the following rooms: (See handout for problems/directions.)

Extension Activity:

- Tape measure to measure the classroom or rooms at student's house.
- Find the area of several rooms in your house or building.

Debriefing/Evaluation Activity:

Check Student's progress as they work the problems. Also, as part of the summary and challenge – see if students can combine 2 rooms together to find the area of those two rooms. Answer key included.

Real-Life Connection:

Finding the area can be used when you need to figure out if things can fit into a certain space. This is helpful when purchasing furniture, machines or appliances. Also, if you want to build on to your house, you will need to be able to figure out the area.

ESE Accommodations:

- Work in groups
- Visual diagram
- Chart to follow
- Hands-on in extension activity

FORMULAS

AREA of a:SquareArea = side2RectangleArea = length x widthParallelogramArea = base x heightTriangleArea = $\frac{1}{2}$ x base x heightTrapezoidArea = $\frac{1}{2}$ x (base, \div base2) x heightCircleArea = π x radius2; π is approximately equal to 3.14

ANSWER KEY

- A. 54'
- B. 12'
- C. 63'
- D. 10'
- E. 113.04'
- F. 36'
- G. 81'
- H. 81'
- I. 297'
- J. 252'
- K. 54'
- L. 63'
- M. 21'