

**Strand:** \_\_\_\_\_ **Numbers and Operations** \_\_\_\_\_ **Name:** \_\_\_\_\_  
**Skill Addressed:** Understand Exponents and Radicals **Block:** \_\_\_\_  
**Activity:** *Visualizing Squares and Square Roots*

Work in Groups of 2 or 3:

Using Dot Paper draw squares of area 1, 4, 9 and 16. Make a chart or organize your work in another way to clearly show how the area of the square is connected to the length of its side.

Can you make a square of area 5 using the dot paper? Hint: how long would its side have to be? Use your knowledge of square roots and of Pythagorean's Theorem to construct one of the sides of a square that has an area of 5. Can you use the dot paper to construct a side of this length?

If you could not make a square of area 5, try to make one with area 2.

Make as many squares on dot paper as you can, making squares with areas from 1 to 24. Can you make all of them? How do you know you have all of the possible squares?

Explain clearly on a poster. Your teacher may ask you to present and explain your results.

# BLM – Dot Paper

