

EXPERT JIGSAW

Strategy Activity Plan

MATHEMATICS CONCEPT: TRANSFORMATIONS AND SYMMETRY

NCTM Grade 6-8 Standard(s) Addressed:

- Geometry: Apply transformations and use symmetry to analyze mathematical situations
 - ❖ Describe sizes, positions, and orientations of shapes under informal transformations such as flips, turns, slides, and scaling
 - ❖ Examine the congruence, similarity, and line or rotational symmetry of objects using transformations

REQUIRED MATERIALS

- Textbook or individual handouts
 - Jigsaw worksheets
- These will need to be prepared before class. Each "expert" worksheet will need to be given a number. There should be one "expert" worksheet for each number so that when students move to numbered "home" groups, there will be one of each expert.*

ACTIVITY PROCEDURE

1. Divide students into four "expert" groups, one for each category: Translation, Reflection, Rotation, and Symmetry.
2. Each member of a group should have their corresponding worksheet as well as a textbook or appropriate handout describing their expert category
3. Give students ample time to work in their groups; they should discuss the answers to their worksheet and fill it out appropriately
4. Next, students will be broken up into "home" groups. There should be a group of 1s, 2s, 3s, etc. Each "home" group should include *one of each expert*
5. Each expert is in charge of explaining his or her expert topic and share what he or she has written on the worksheet. While the expert is teaching, the remaining group members should take notes.

A great way to wrap-up this activity is to have each "home" group make a poster that reflects their learning of the material. Each poster would contain the group's knowledge of all categories: Translations, Reflections, Rotations, and Symmetry. Groups should be encouraged to be creative and thorough in this activity.