

Lesson Title: Translations, Reflections, and Rotations

Grade Level: 4

Skill: Transformations

Overview & Purpose Students will identify and draw slides, flips, and turns.	NCSCOS Objectives 3.03
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	Teacher Notes	
Vocabulary <i>*translation:</i> A movement of a figure to a new position along a straight line <i>*reflection:</i> A mirror image of a figure over a line <i>*rotation:</i> A movement of a figure to a new position by rotating the figure around a point		Materials Needed • The following worksheets: <i>Learn the Math</i> <i>Do the Math</i> <i>Independent Practice</i>
Teacher Input:	<u>Learn the Math:</u> Discuss the problem with students. Explain to students how the figures used in the examples are the same shape and same size. Discuss a translation. Show students how the figure moved in a straight line without turning or flipping. Next, discuss a reflection. Show students how the two figures are mirror images. Finally, discuss a rotation. Show students how the figure has rotated around a point.	
Student Activity	<u>Do the Math:</u> Discuss the problem with students. Guide students through the questions. Remind students that figures need to be congruent, or the same shape and same size, in order to be related by a translation, reflection, or rotation. Students complete Exercises 2-9. <u>Independent Practice:</u> Assign Exercises 1-10 and check students' work.	Other Resources (e.g. Web, books, etc.) http://www.ntc-school.com/sec/math/t_resources/gamezone/pdfs/mac3_04/class_ch06.pdf
Questions to Ask	*Are the objects the same shape and size? *What are the only two things that change when you translate (slide), reflect (flip), or turn (rotate) a figure?	