

Your Name: Kelsey Nudd

Your Role: 8th Grade Math Teacher

Unit 1: Rigid Transformations and Congruence

When I have taught this unit for the past two years, I have used the curriculum provided by my school (Illustrative Mathematics). I used their problems and students had individual work books that were kept inside of the classroom. Students then had a weekly practice where they had to complete five problems weekly to turn in to be graded. Students were given a lot of written feedback on assignments and were allowed to make corrections within a certain time frame. This was successful for many students, but I had many students who would just not do work outside of the classroom unless forced and that never made me feel good. This year, I did not order work books in order to be more flexible with my approach and change the weekly practice approach into a math menu that would be completed in class. This unit outline is for the first unit in the year for my 8th grade course and will be my trial run this year for my “new” idea!

This unit refresh will be for the beginning of the unit in which students will be introduced to the rigid transformations.

Here is a link to my old unit with all of the lesson plans written out.

[Old Unit](#)

Topic and/or Content Area

The topic of this unit is Rigid Transformations and Congruence. Students will learn how to perform rigid transformations (rotations, reflections, and translations) on points, lines and shapes on a coordinate grid.

Targeted Audience for this Unit:

8th grade introductory unit in math class

Learning Goals:

Students will be able to...

- Describe the movement of shapes informally and formally using the terms “clockwise,” “counter clockwise,” “translations,” “rotations,” and “reflections” of figures.
- Draw and label the image and “corresponding points” of figures that result from translations, rotations, and reflections.
- Explain the “sequence of transformations” that “takes” one figure to its image.
- Generalize the process to reflect any point in the coordinate plane.
- Generalize the process to translate any point in the coordinate plane.
- Generalize the process to rotate any point in the coordinate plane.

Learning Goals were taken from Illustrative Mathematics Unit Overview.

Assessment Practices included in this Unit

Formative Assessment

Summative Assessment

<ul style="list-style-type: none"> • Exit tickets • Informal check ins (thumbs up, to the side, or down) • Walk around to groups • Small group conferences 	<ul style="list-style-type: none"> • Math Menu Page to be graded (roughly weekly)
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Differentiation Ideas

BRAINSTORMING IDEAS from YOU For Differentiation in all 3 areas.	Feedback and Additional Ideas Add your initiations next to your Feedback or Additional Ideas not yet mentioned!
CONTENT <ul style="list-style-type: none"> • Whole class mini lessons to introduce new topics • Weekly math menus for students to work at their own pace/ with groups at their own comfort level. <ul style="list-style-type: none"> ○ Students will be monitored during individual work time to make sure they are on task and working on their “must do’s”. If students are not on task, there will be conversations about their work and why it is not getting done on time. ○ Students will collaborate on work in their menu if needed. Some pages will say it can be done with a partner/ small group while some may say to do it individually. ○ Directions for the menu will be given orally or students can use text to speech if they are accessing it via computer. • Small group conference with the teacher, interventionist, or special educator to reinforce topics. 	<p>I wonder if the outcome for students in the groups that choose their menu choice and may benefit from each other by sharing something different from the menu each chooses in their group. I like the menu idea that gives the students choices to start the week! MP</p> <p>I, too, like the menu option and am wondering how you will manage the individual pacing with the ‘groups at comfort level’ aspect? Mostly I’m looking for insights as I also hope to incorporate menus within my learning day. DL</p> <p>I noticed that in your unit plan you will also be providing supplemental videos. I think this will prove a helpful support for those who need something more or different than the mini-lesson provides. DL</p>
PROCESS <ul style="list-style-type: none"> • Formative feed back • Exit tasks to check in on progress to organize small group approach • Flexible grouping 	

PRODUCT <ul style="list-style-type: none"> Completed math menus to show a product of their learning 	
BRAINSTORMING IDEAS from YOU For UDL Strategies in the following 3 areas	Feedback and Additional Ideas Add your initiations next to your Feedback or Additional Ideas not yet mentioned!
Multiple Means of Representation <ul style="list-style-type: none"> Work will be provided on paper as well as a PDF if preferred. Supplemental work will be provided through programs on the computer. 	
Multiple Means of Expression <ul style="list-style-type: none"> Multiple approaches to solving the problem 	
Multiple Means of Engagement <ul style="list-style-type: none"> Individual work in math menu Time to work in small groups during class Whole group instruction 	

[Refreshed Unit Plan](#)