Jenny Au
Lesson 1
11/21/2013-12/4/2013

Summary of Lesson: Centroid

During the beginning of class, students had a "Do Now" where they began with a right triangle. Their first task was to predict where they think the centroid is going to be. Then they find the centroid of that triangle by finding the midsegmeants of each side and drawing a line from each midsegment to its opposite corner. Their second task was to flip a mirror image of the right triangle, combine the two right triangles to form a brand new triangle. They had to predict where the new centroid was and then find the actual centroid. If their prediction was inaccurate, the students had to explain why the centroid changed.

After the "Do Now" part of the class, an activity was given to the students. Depending on the class size, the students are divided among six different groups. A different shape was given to each group. Here, they had to predict where the centroid was. Most shapes were asymmetrical. Each group had to predict where the centroid was located. After their prediction, the shape was cut out and then the students were allowed to find the actual centroid using their finger to balance the shape. They marked the actual centroid and then they had to measure the distance from their prediction to the actual centroid. Each group had to present their shape and findings. They had to state how far off their prediction was from the actual centroid and what led them to choose the method that they chose. The last thing each group had to explain was what they would do differently to make a better prediction.

The activity is able to help the students practice their speech in English since students in the International School have English as their second language.

This lesson went on for 2 weeks. Groups that didn't finish had to present during the 2nd week. Also, all the lessons are taught to 5 different classes taught by Mr. Vera.

Teacher: A.J. Vera
Period: 1,2,3,5,7   **Class: Lawrence High School Geometry Class**
Date(s): 11/21/2013 – 12/4/2013

SETTING THE STAGE	
Essential Question	What is Centroid?
Content Objective(s) (Student-friendly)	Find the centroid of the specific shape given out.
Connection to previous or future lessons	Students worked with centroid related to geometric shapes.
Critical Thinking Questions	Where is your prediction and your actual centroid? Why is the predicted centroid different from the actual centroid? What would you do differently to make a better prediction?
Key Vocabulary	Centroid, center of mass, balance
Materials Needed/Safety	Thick paper, scissors, pencil, ruler
ACTIVE INSTRUCTION	
• Launch (Engage)	Review centroid of a right triangle. Take mirror image of right triangle. Find new centroid of the triangle.
• Investigation (Explore)	Given the irregular shape, predict the centroid. Then cut the shape and find the centroid by balancing the cut shape on the index finger.
TIME FOR REFLECTION	
• Summarization (Explain & Extend)	Students in groups of 3 or 4 would answer the critical thinking questions in front of the class room in English as a presentation.
• Assessment (Evaluate)	Mr. Vera would grade them for class participation in his own grading book.
• Homework	None