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| **LESSON PLAN: AAA Patty Paper** |  |
| **UNIT: Triangles**  **TOPIC: AAA Congruence** | **COURSE CODE: MGS21**  **DURATION: 1 Period** |
| **AIM** | Is AAA a congruence shortcut? |
| **OBJECTIVES** | By the end of this lesson, students should be able to:   * Determine whether or not triangles can be proven congruent using AAA. * Recognize that triangles that share AAA have a similar “shape.” |
| **COMMON CORE LEARNING STANDARDS** | CCSS.MATH.CONTENT.HSG.CO.B.8  CCSS.MATH.CONTENT.HSG.CO.C.10 |
| **MATERIALS** | Smart Notebook, main activity sheet, pencils, patty paper |
| **GROUPING** | Pairs based on seating chosen by the teacher. |
| **LEARNING SUPPORTS** | The students will work with patty paper which have been a key part of the previous 4-5 lessons. |
| ***PACING*** | This lesson introduces another congruence condition that does not work and require the students to look for counter-examples similar to SSA from a previous lesson. |
| **HOMEWORK** |  |
| **DO NOW / WARM UP** | \*Do not copy! Just answer the question!\*  What congruence conditions do we know so far? Which congruence conditions do not work? |
| **AGENDA** | **QUESTIONS/CFUs/MISUNDERSTANDINGS** |
| 1. **INTRODUCTION: {5 mins}**  * While the students work on the Do Now the teacher will circulate the classroom to check for completion of homework and complete attendance. (2 mins) * Three student volunteers will be asked to explain their responses to the Do Now problem. (3 mins) | Students have already worked with patty paper to make the constructions required here. They have also worked with disproving congruence conditions by finding triangles that do not work. |
| 1. **DIRECT INSTRUCTION: {8 mins}**   A student volunteer will hand out patty paper and the and the main activity sheet. The class will turn to page 229 (Investigation 3). (2 mins)  A student volunteer will be asked to read the paragraph introduction to the investigation. The students will be asked the questions on the right. (6 mins) | What initial thoughts do you have about AAA?  Do you think it will work/not work? Why?  How can we use the patty paper to make this construction?  Will you always create the same triangle given these pieces?  Do angles have set length for each of their sides?  Do you have to connect them at their endpoints? |
| 1. **GUIDED PRACTICE: {12 mins}**   The students will begin their constructions by tracing using the patty paper. {4 mins}  The students will then assemble triangles using the patty paper and compare the triangles they created. (5 mins)  The teacher will ask the students to share what they notice about their triangles. (3 mins) | How do you connect the two angles?  Are the letters important in this case? Why? How is this different from previous examples?  How is this different from AAA?  Do you have multiple options for building triangles with these pieces?  How would you complete this triangle?  How small can you make a triangle using these angles? |
| 1. **INDEPENDENT PRACTICE: {12 mins}**   The students will then answer the reflection questions on the activity sheet.  During this time the teacher will circulate the classroom to check for understanding, assess student learning, and assist students in need of help. | Extension Questions:  How many different options do you have for creating a triangle with these pieces?  What do you notice about your triangle when compared with your partner’s?  Do the triangles look similar? Why do you think this is the case? |
| 1. **SUMMARY: {9 mins}**   Three student volunteers will be asked to share their answers to each of the reflection questions. (Are these triangles congruent? Do they look similar? What makes them look similar? | **Exit Slip:** |