

## Lesson Plan –

**Topic:** Congruent Triangles

**Objective:** To prove triangles are congruent by SSS, SAS, AAS and RHS

**Resources:** Geostrips, worksheets, video, protractor, ruler, paperclips, measuring tape

**Number of Lessons:** 1

### Introduction

- Students are grouped and seated at the different stations in the classroom
- Video –  
[https://www.youtube.com/watch?list=PLMP5MgQdvcw5t2eyHACoSCpHiEFruICdp&time\\_continue=41&v=aejEwpxfKu8](https://www.youtube.com/watch?list=PLMP5MgQdvcw5t2eyHACoSCpHiEFruICdp&time_continue=41&v=aejEwpxfKu8)
- Elicit the meaning of the word 'congruency'

### Development

- Each station in the classroom will have an activity either on SSS, SAS or RHS
- Students attempt the task at their station for 10 minutes and move on to the next task.

### Conclusion

- Students present what they found/learned in each task
- Present follow-up worksheet

### Task 1 – SAS

**Resources: Ruler or measuring tape; protractor; paperclip**

Take a look at the three triangles provided.

1. Measure the length of the **longest** side of each triangle (the red strip).
2. Measure the length of the blue side of each triangle.
3. Use a **protractor** to find an angle of **40°** in each given triangle. Use a paperclip to mark the position of the angle on the triangles.
4. What do they all have in common? However, which two triangles are congruent and why?
5. What do you notice about the position of the angle?
6. Can any two triangles be congruent if given any two sides and any angle?

## Task 2 – SSS

**Resources: Ruler or measuring tape**

1. Measure the sides of all the given triangles. List the measurements in the table.
2. Which triangles are congruent and why?

Triangle A	Triangle B	Triangle C

## Task 3 – RHS

**Resources: Ruler; protractor; paperclip; geostrips**

1. Measure the **hypotenuse** and the **red side** of this triangle.
2. What type of triangle is this? (right-angled, isosceles, equilateral)
3. Mark the right angle using a paperclip on the given triangle.
4. Use the other strips provided. Can you create another right-angled triangle using the same length for the hypotenuse and red side, but a different length for the third side?
5. If two right-angled triangles are congruent, what can you conclude about the three sides of the two triangles? (link with SSS)

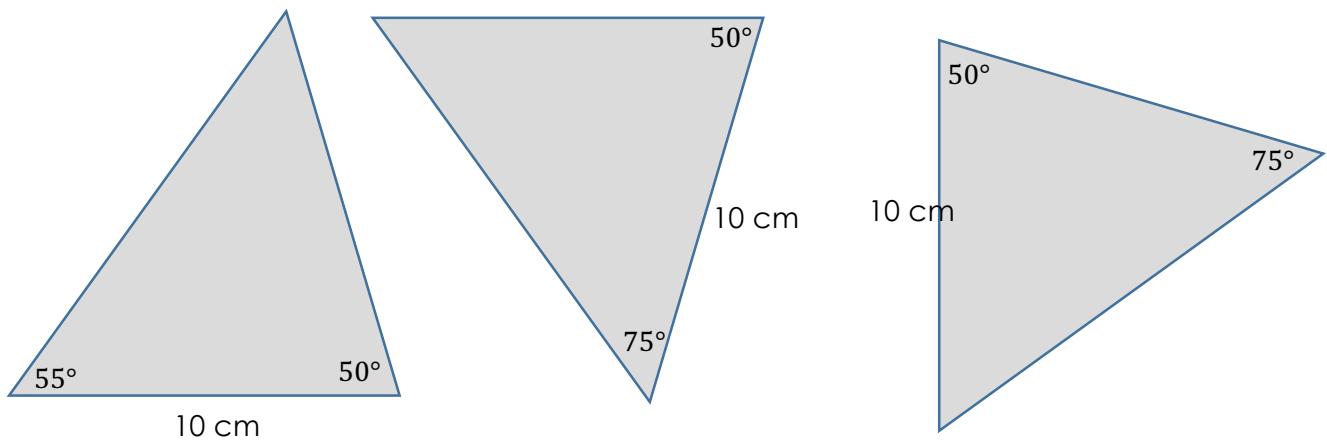
**Note for teachers:** Make sure all geostrips are rearranged after each group

#### Task 4 – AAS

1. Each triangle is given the length of one side and two of the angles.

**NOTE!** The diagrams are not drawn to scale, you cannot use a ruler or protractor. You may use a calculator if your wish.

2. What do all three triangles have in common?
3. Which two triangles are exactly the same? Give two reasons.



Triangles for Task 2:

