

An Alternative Approach to Alternate Angles

Topic: Geometry

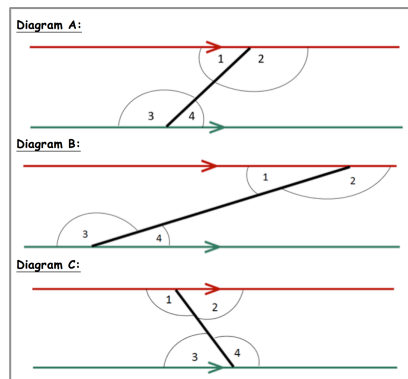
Students are presented with the opportunity to explore synthetic geometry in this structured problem-solving lesson.

Year Group: 1st Year

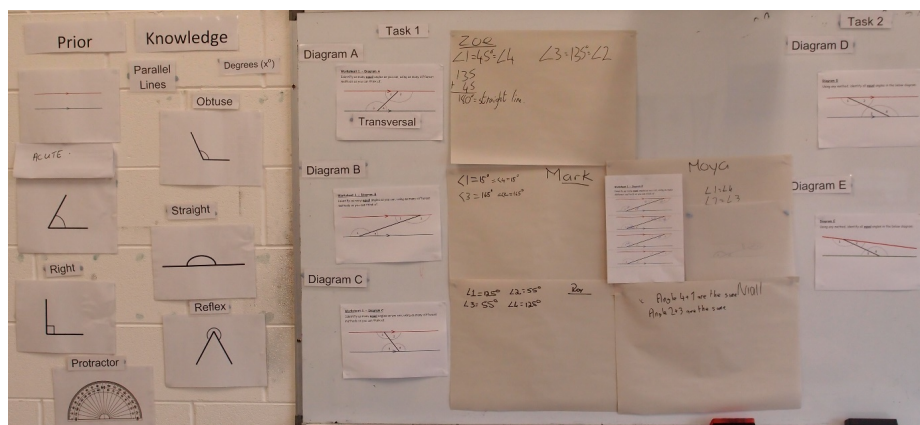
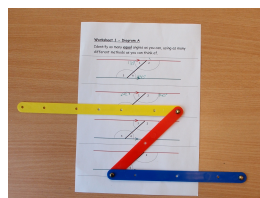
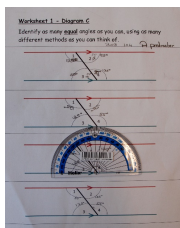
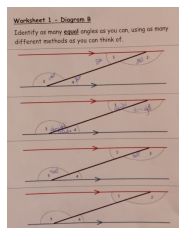
Level: Mixed Ability

Posing the Task

Your task is to identify which angles are equal.



Presenting the Students' Work



Prior Knowledge & Posing the Task
10 minutes

Students working on the problem
10 minutes

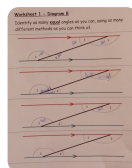
Presentation of Solutions & Ceardaíocht
20 minutes

Summing up & Reflection
5 minutes

Reflecting on the Learning

We found that students were very quick to ask for clarity, this could be related to the fact that the lesson was of an unfamiliar style. Students tended to work with resources that were familiar to them rather than try new methods/unfamiliar resources, we felt some students wanted to use new methods but were reluctant to do so as most did not know what Geostrips were.

Most students tried to use their prior knowledge to help them to get a solution. Most students tried to use the terminology $\angle 1 + \angle 2 = 180^\circ$ and $\angle 3 + \angle 4 = 180^\circ$ to make connections. This way of thinking will make the introduction of theorems and proof easier.



Developed by Laura Hogan and Anna Spruhan with thanks to Sarah Tallon MDT and the students from Scoil Chonglais, Baltinglass, Co. Wicklow.

To download this lesson plan visit www.projectmaths.ie/mc2017

