

**ACADMIC CHALLENGE - A PROTOTYPE FOR MIDDLE SCHOOL MATH**

1. Curricular Area Mathematics - Geometry	6. Product Geometric based artwork
2. Targeted Knowledge Use of protractor to measure and draw angles. Acute vs. obtuse angles. Relations of complementary and supplementary angles.	7. Product Standards (Form, Content, Impact & Process) <ul style="list-style-type: none"> <li>- Artwork uses only 30, 45, and 90 degree angles</li> <li>- Final result has no 90r one clearly justified) obtuse angles</li> <li>- Artwork is neat, without erasures and stray marks</li> <li>- Artwork represents a synthesis of partner's ideas</li> <li>- Work includes a paragraph on the back describing any "discoveries"</li> </ul>
3. Targeted Outcome Ownership	8. Suggested Resources Protractors, paper, pencils, and possibly construction paper and scissors
4. Outcome Standards (Impact & Process) <ul style="list-style-type: none"> <li>- Participates fully in decision making relevant to process and outcomes of the work</li> <li>- Identifies, defends, and pursues own ideas within a given framework</li> <li>- Is willing to be held accountable for own actions</li> <li>- Takes ownership in and successfully completes the work</li> </ul>	9. Group Sizes/Grouping Methods Pairs
5. Essential Question Mysteries are there to be discovered in the seemingly "obvious" and straightforward?	10. Individual Accountability Either individual will be chose to "defend" artwork and demonstrate that there are only 30, 45, and 90 degree angles
11. Student Roles and Scenario N/A	
12. Challenge (See Description on Following Page)	
13. Log Components None	14. Time Frame 2 class periods
SECTION B–DESIGNING CHALLENGES–MIDDLE SCHOOL MATH CHALLENGE	

1996 Critical Skills Program