## AREA BATYTLE

A game for 2-4 players/teams.
Idea: players make their own deck of cards and then match their cards against the opponents' cards, trying to get lower or higher area or perimeter.


Materials/Set Up: each player or team gets 11 grid cards to make their shapes. They need to make 9 cards that have a shape with area $1,2,3,4,5,6,7,8$, and 9 squares. They can make any allowed shape on the grid they choose that meet the area requirements. (Possible rules: polygons on the graph vertices, shapes made with whole squares, rectangles or half rectangles, or shapes made with whole or half squares.), with those areas. The last 2 cards they can make any shape and area they'd like. Teams mark the back of the cards with a quick symbol or picture to show it's their deck.

Play: Each team shuffles their cards, and draws 2 cards. The team with the youngest player goes first. They choose one of their cards, put it face down, and choose whether low or high area wins. The other team(s) choose a card to play after low/high is declared. Anytime a card is played, draw a card to replace it. Players reveal their cards and the team with the chosen quality, lowest or highest area, wins. If there's a tie (war!) then the teams who are tied play a second card - and highest perimeter wins. Play continues until one team is out of cards. (It will be at the same time with just two teams.) Each team takes their own cards back.

## Variations:

In the following variations, decks always have to remain a legal deck. Areas 1 to 9 plus two free cards.

- In between games, a team can design new cards for their deck.
- At the end of the game, the winning team gets to pick one of the cards they took to keep. They can add their symbol to the back and use it to play.
- Area and Perimeter Battle: the team going first chooses both High or Low and Area or Perimeter, to see what gets compared.
- Area Vs. Perimeter: two teams, one is area the other is perimeter. Teams declare high or low, but you compare area for the area team and perimeter for the perimeter team. (Mr. Schiller variation.)

Give it a go and battle on!
CC3.0 John Golden, mathhombre.blogspot.com



