



Activity: Quadrilateral Sort

Format: Small Group/Large Group

Objectives: After performing their own sorts, participants will be able to distinguish the way students at various van Hiele levels of geometric thought may sort quadrilaterals.

Related SOL: K.11, K.12, K.13, 1.16, 2.22, 3.18, 4.15, 4.17, 5.14, 5.15

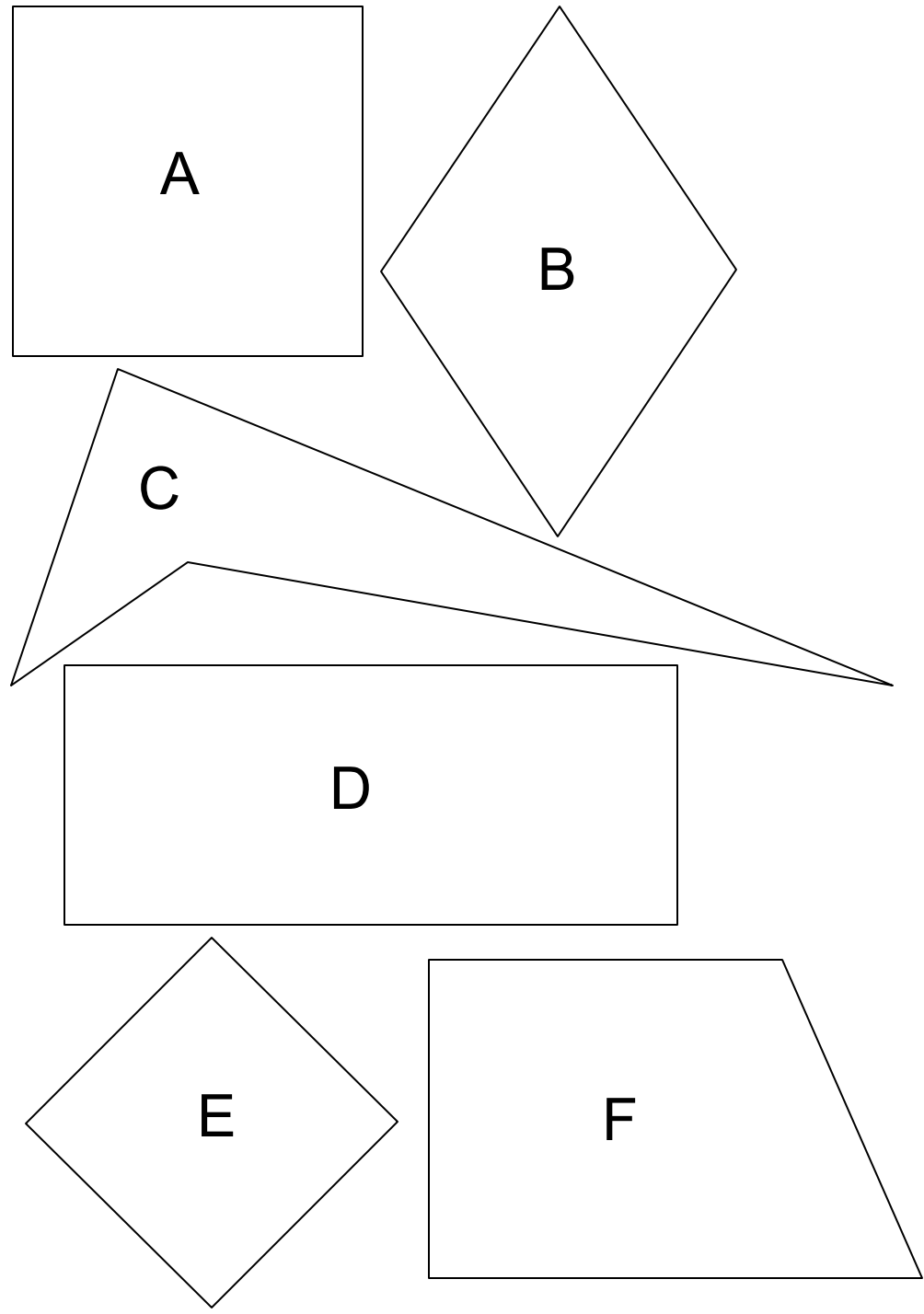
Materials: Quadrilateral Sorting Pieces Activity Sheet with quadrilaterals cut out and placed in a plastic baggy or manila envelope. You will need at least one set of quadrilaterals for every three participants.

Time Required: Approximately 20 minutes

- Directions:**
- 1) Divide the participants into small groups. Distribute the sets of cut-out quadrilaterals, at least one set per three participants. Instruct the participants to lay out the pieces with the letters up. Do not call them quadrilaterals. Tell the participants that the objects can be grouped together in many different ways. For example, if we sorted the figures that make up the American flag (the red stripes, the white stripes, the blue field, the white stars), we might sort by color and put the white stripes and the stars together because they are white, the red stripes in another group because they are red, and the blue field by itself because it is the only blue object. Another way the flag parts could be grouped would be all the stripes and the blue field together because they are all rectangles and all the stars together because they are not rectangles. Have them sort the figures into groups that belong together, recording the letters of the pieces they put together and the criteria they used to sort. Have them sort two or three times, recording each sort.
 - 2) Ask the participants to describe their sorts. Have them compare their sorts with those of other groups.
 - 3) Ask them how they think their students would sort these figures.



Quadrilateral Sorting Pieces





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