Activities involving Surface Area and Volume

1. Make several different rectangular structures with 24 cubes.

 They all have the same **volume** ( 24 cubic units). Do they have the same

 **surface area**?

 • Figure out the surface area of each structure.

 • Sketch each structure and write its dimensions.

 • If 2 structures have the same volume, will they always have the same

 surface area?

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 same volume?

**2. 'Cutting Corners' to build boxes.**

 • Make several boxes from a 20x20 sheet of paper. For the first box, cut out

 a 1x1 square from each corner, then fold up the sides, and figure out the

 volume.

 • For the next box, cut out a 2x2 square from each corner, fold up the sides

 and figure out the volume.

 • Continue in this way, cutting out larger squares from each corner,

 making all the boxes you can.

 • Write the **dimensions** and **volume** of each box.

**3. Solve the problem: 'Filling some Planters'**

*Prime CaMSP Summer, 2013*