**LAB: 2-D CONTOUR MAP to 3-D MODEL - PROCEDURE**

**Materials**

* 2 large copies of the group’s assigned topographic map
* Play dough, or glue and beads (will be used to separate & “lift up” the contour layers)
* Scissors, pencils, tape
* Large pieces of foam board or poster board to cut and make the 3-D model
* Rectangular cardboard, larger than model base, to hold and carry the model

**Group Member Roles:**

* Paper cutter & pattern tracer
* Foam board cutter
* Playdough square maker (or bead gluer)
* Layer stacker

**Procedure**

* The 1st large contour map will be cut as instructed below and used to build your 3-D model.
* The 2nd large contour map will be used as a reference and should NOT be cut.
1. Cut the 1st large contour map along the 120m line ONLY.
	1. Trace the 120m piece onto a foam or poster board.
	2. Cut the pattern out.
	3. This foam/poster piece will be the base of the hill in your 3-D model.
	4. Place this bottom piece on one side a large rectangular piece of cardboard. (The cardboard will allow it to be carried to the counter after your model is completed.)
2. Now cut the paper map piece smaller by cutting along the 140m line.
	1. Trace the 140m piece onto a piece of foam/poster board.
	2. Cut the 140m pattern out.
	3. This piece will be the next layer on your 3-D model.
3. Repeat this procedure with the other contour lines, until all contour lines have been cut out of foam/poster board.**\*\*\*NOTE: If your map has two hills, for some elevations you will have two pieces of cardboard cut.**
4. Using the 2nd large copy of the map as a guide, stack the cut pieces from lowest to highest elevations. As you stack, place 3-5 small flat squares of clay between each layer to add height.
	1. **\*\*\*\*NOTE\*\*\*\*\*:** **Are the layers closer on 1 side of your paper map** than the other? BE SURE to put that side closer on your 3-D model also so that the steepness matches.
5. When finished, tape your 2nd (uncut) copy of the map to the base of your model. Put your names and period on the copy of the map. The models will be saved for another activity tomorrow.
6. Answer the Post Lab Questions and the Conclusion.

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