SCIENCE **Monticello Topography** **Name:**

Part 1: Topographic Features

1. Take a look at the topographic map above and list five observations about it. This can include what information it provides, appearance, numbers, or anything that catches your attention.

a. _____

b. _____

c. _____

d. _____

e. _____

2. Read the following part of a letter that Thomas Jefferson wrote to Samuel Biddle describing Monticello and highlight any features from the letter that you can find in the map above.

> **"The place you are to overlook is that on which I live, & to which I shall return in March next. It is 70 miles above Richmond on the North branch of James River, exactly where it breaks through the first ridge of little mountains, near the village of Charlottesville, in Albemarle County. It is 225 miles from Elkton, a southwest course. From this description, you may find it in any map of the country. The climate is very temperate both summer & winter, and as healthy as any part of America, without a single exception….Besides this I have on the opposite side of the little river running through my lands, 2000 acres of lands of the same quality…"**
> *(Letter to Samuel Biddle, Dec. 12, 1792)*

Part 2: Monticello 3D Mountain Model

Topographic maps are defined as depicting "*in detail ground relief (landforms and terrain), drainage (lakes and rivers), forest cover, administrative areas, populated areas, transportation routes and facilities (including roads and railways), and other man-made features.*" (Natural Resources Canada). They are used by many people, including hikers, city planners, conservationists, engineers, scientists, and loggers. They are a two dimensional representation of a landscape.

Why is it useful to be able to create 2D models of our 3D world?

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We're going to use data from a 2D topographic map to create a 3D model of Monticello. Use the student handouts and materials from your teacher to construct your model. Answer the questions on the back when done.

SCIENCE **Monticello 3D Model** **Name:**

1. Where are the steepest parts of the mountain and how can you tell? (Describe its appearance)

2. If you had to travel by horse from the top of the mountain to the bottom, how would you do it? What if you had to walk? Is your answer different if you are walking while carrying a baby?

3. A roundabout was made to transport people up and down the mountain. Roundabouts hug the contours of the land to minimize movement over steep slopes. Draw where you would put a roundabout on your model.

4. Some of the materials to build Monticello came from a quarry down the mountain. When the well at Monticello dried up, water for the plantation also came from the base of the mountain (the river). On your diagram, draw the route that you would take to get these resources.