

Hanford Mills Museum is a historic site in East Meredith, NY. From its start as a seasonal sawmill in the 1840s, the Hanford family expanded the Mill to also include a gristmill, feed mill, wood-working shop, and hardware store. Today, Hanford Mills Museum shows how mills, which were once common in rural towns, operated.

You can watch a video version of these instructions online at: hanfordmills.org/reading-maps/. We also have other Learn-at-Home activities posted on our website.



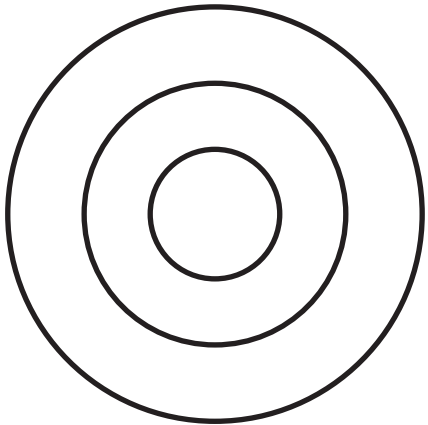
Activity 1: Maps

Reading the lines

The map above is an area around Cady Hill. Do you see the wavy and thick lines? They are called **contour lines**. Each line represents how tall something is and how quickly the height changes. The more lines you see on the map of a hill or mountain, the higher that mountain is. And the closer the lines are together, the steeper the hill or valley.

Let's look at the map of Round Mountain on the next page see how these lines work:

Map of Round Mountain



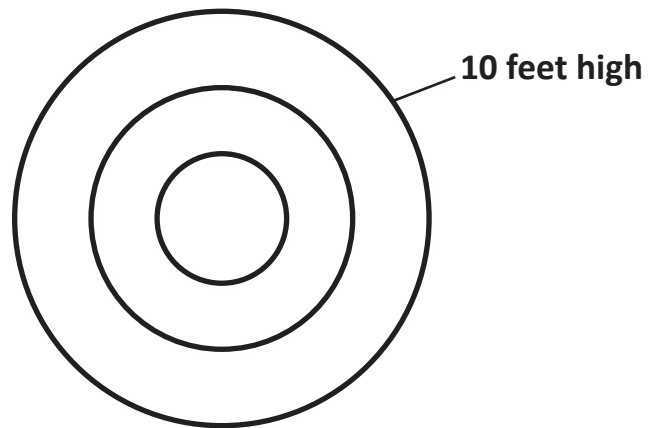
Round Mountain

Map Key:

Starting Height (height of the outer circle): 10 feet

Contour Interval (height change between the lines): 10 feet

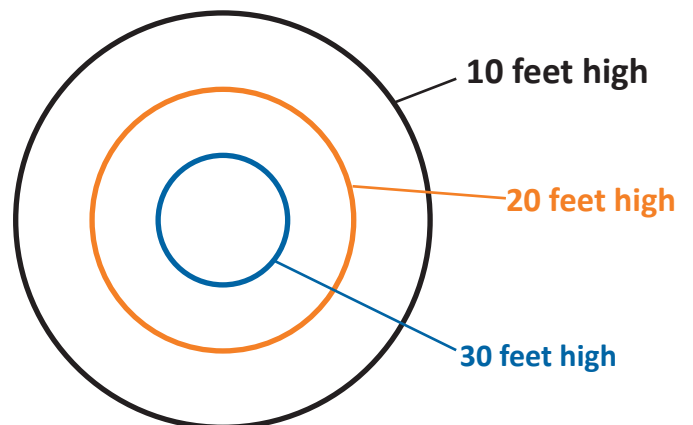
We can use this map to find the height of Round Mountain. If you look at the **map key**, it tells you that the height of the outside circle is 10 feet tall.



Round Mountain

The map key also tells you that the space between the lines means the mountain's height gets taller by 10 feet. So you can count by 10s to find out the height of the smallest circle.

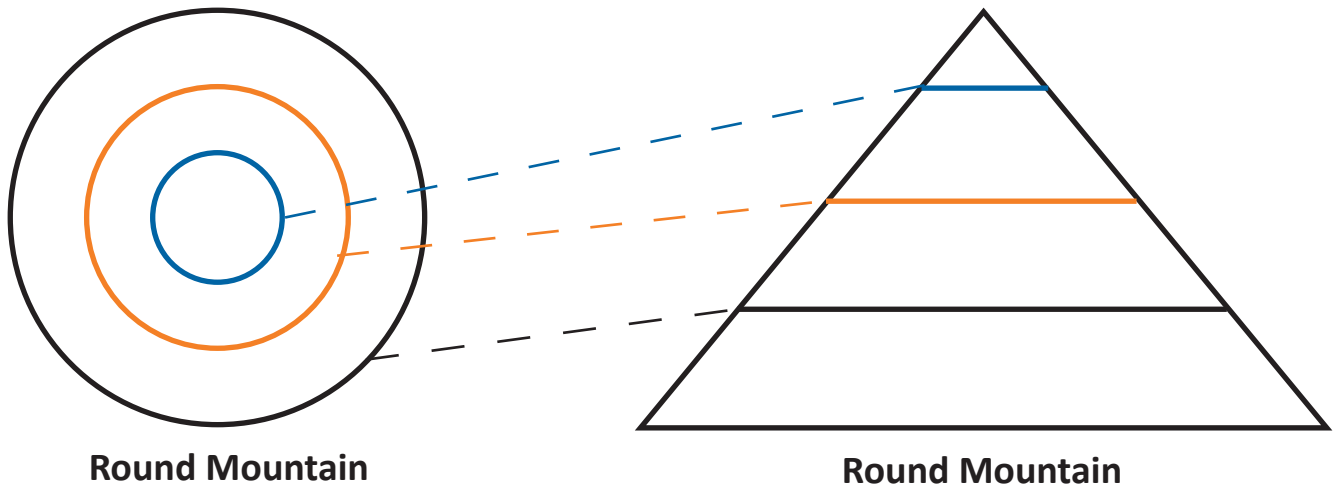
If you count by 10s, the smallest circle is 30. So Round Mountain is about 30 feet tall.



Round Mountain

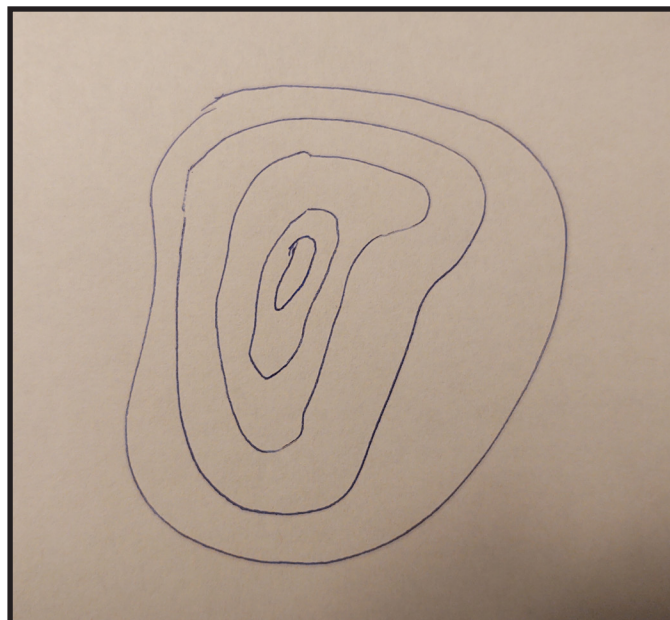
Turning a map into a side-view drawing

You can use the map of Round Mountain to imagine what the mountain looks like from the side. Connect the dotted lines from the contour map of Round Mountain below to the side view on the right. The lines show us what the mountain looks like from the side.

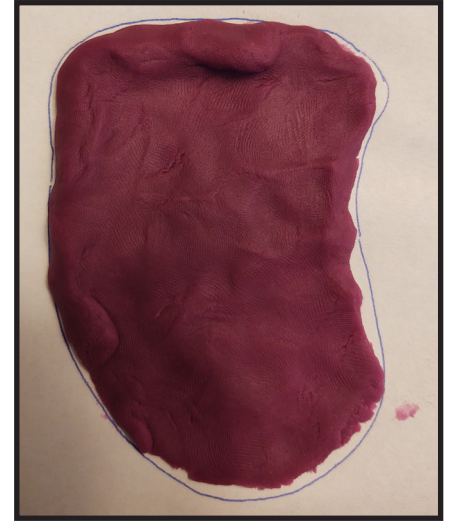


Activity 2: Designing and building your own mountain

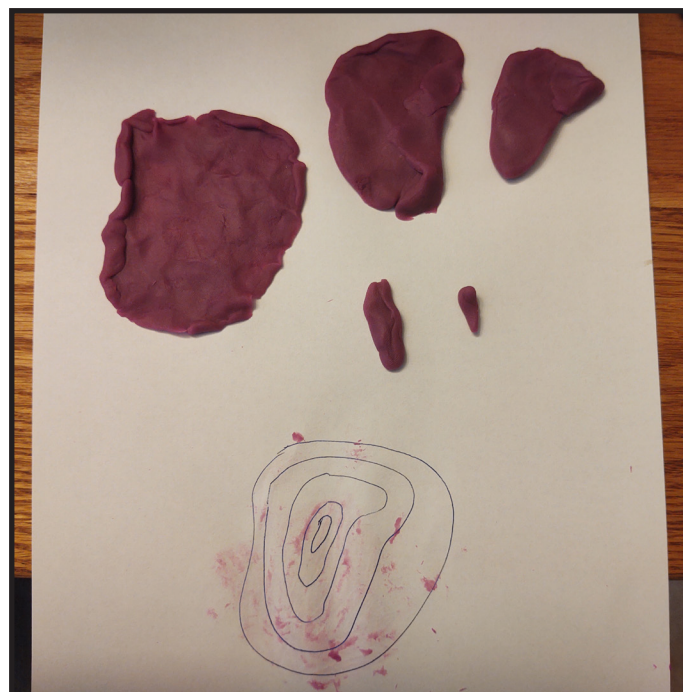
1. Design your own mountain using 5 or 6 lines (they don't have to be perfect circles) inside of the box on the Mountain Design Sheet in your packet.



2. Take your PlayDoh out of its container. Take a small piece of PlayDoh (about $\frac{1}{4}$ of your total amount) and flatten it with your hands. *If you want to try to make your own salt dough (optional), you can find a recipe on page 6.*
3. Put your flattened PlayDoh on top of your map and shape it so it covers the space up to the edge of biggest line.



4. After you have shaped that PlayDoh layer, take it off the paper and place it to the side.
5. Repeat steps 3 and 4 until you have all the different contours made with PlayDoh. You will need a smaller amount of PlayDoh for each layer until you make the smallest one.
6. Complete your mountain by stacking the pieces of PlayDoh on top of each other from biggest on the bottom to smallest on the top.



-

- [illegible]

Optional Activity: Salt Dough

If you would like to make your own dough, this activity also works well with salt dough! Salt dough is simple to make but can be a little messy. Make sure you ask a grown up before making salt dough.

Ingredients:

¼ cup flour

2 tablespoons salt

2 tablespoons water

NOTE: If the mixture is too sticky, slowly add flour one pinch at a time.