

TOPOGRAPHY

Highlights

Topography is all about the shape and features of the land. Imagine you're looking at a big sandbox. If you make some parts of the sand high like hills and mountains, and other parts low like valleys and flat areas, that's like creating different topography.

To understand it better, think about a map you might see in a game or a storybook. If the map shows where the mountains, rivers, and plains are, that's showing the topography of that place. It's a way to see how the land changes in height and shape. So, topography is like drawing and understanding the bumps and shapes on the surface of the Earth!



Materials

- White Glue or Glue Gun
 - Scissors
 - Pencil
 - Template (Provided)
 - Markers or Paint (Optional)
- Contour shape options:
- Foamboard
 - Cardboard
 - Clay or Play doh



QUICK TIPS



SAFETY FIRST

Use materials with a thickness to represent the height of the contours.

Always get help from a parent to cut thicker materials

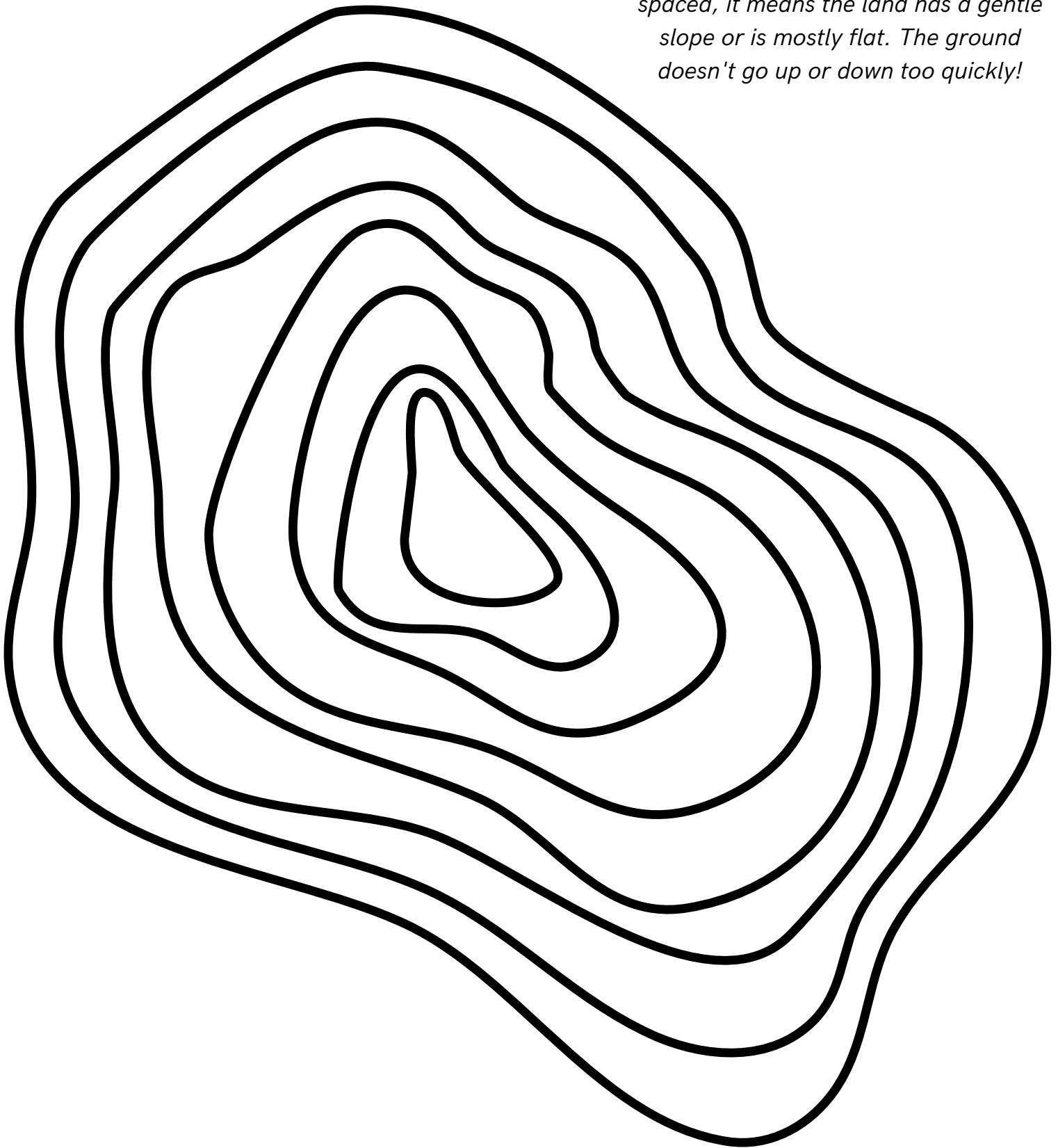


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Island Template

When the lines on a map are evenly spaced, it means the land has a gentle slope or is mostly flat. The ground doesn't go up or down too quickly!

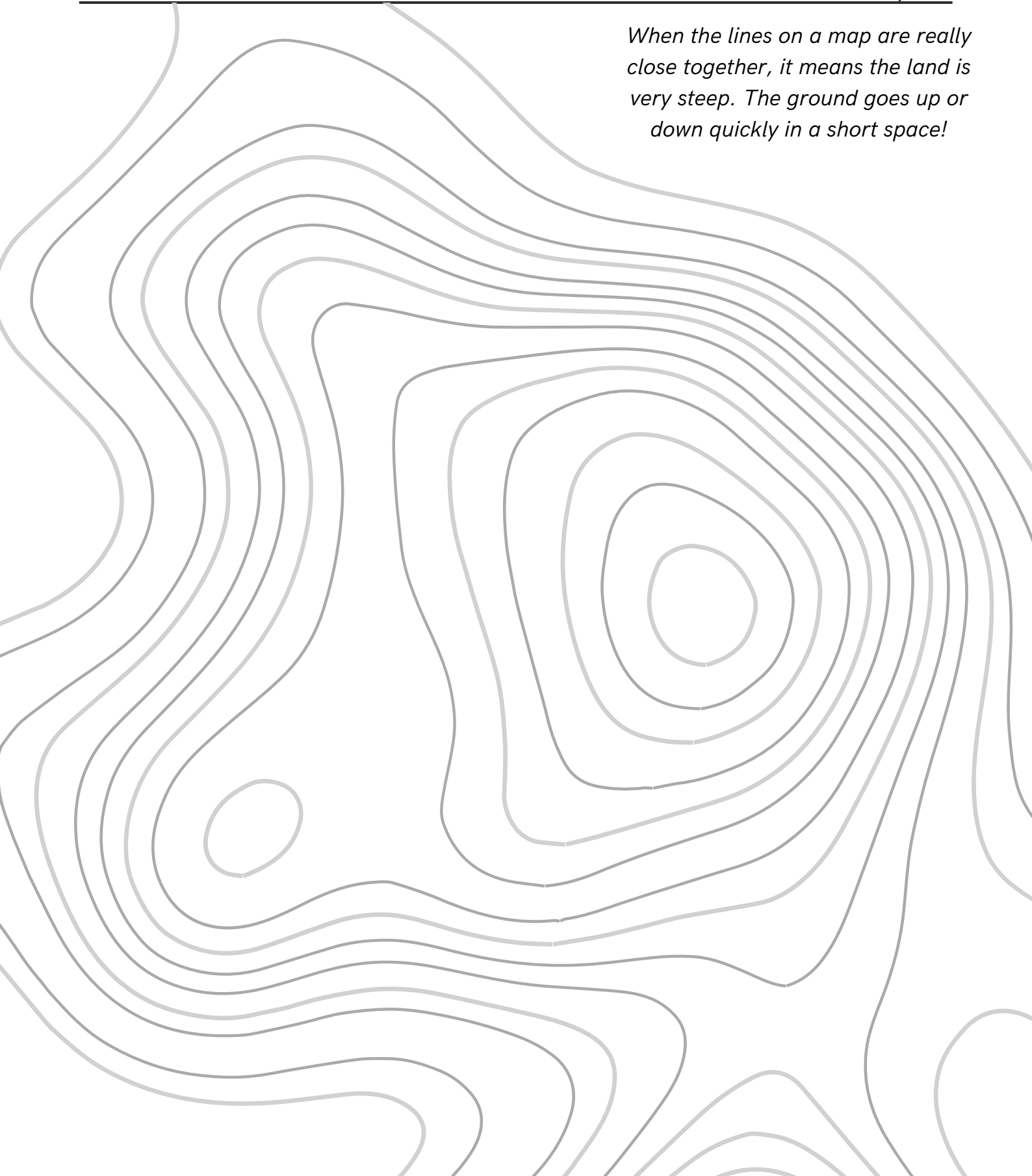


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Mountain Template

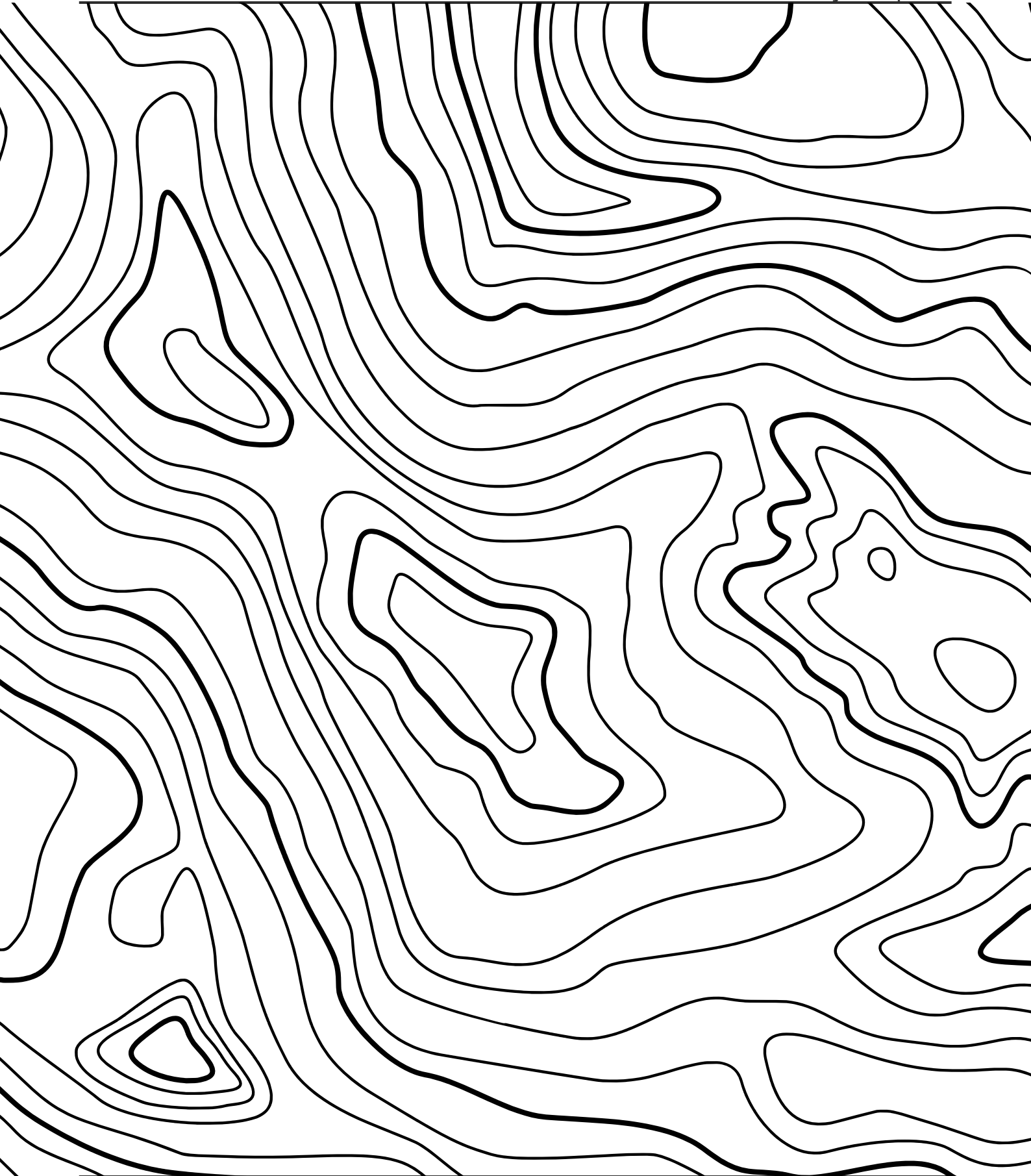
When the lines on a map are really close together, it means the land is very steep. The ground goes up or down quickly in a short space!



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Valley Template



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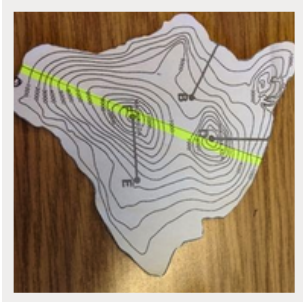
Instructions

Maps that show topography often use lines called contour lines. These lines help show the height of the land (also called elevation points). If the lines are close together, it means the land is steep, like a cliff. If they are far apart, the land is more gentle and flat.



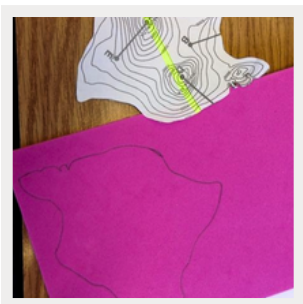
Step 1:

Prepare the template: Choose and print out the contour template provided.



Step 2:

Carefully cut out the first contour line from the template. Starting with the outer lines first.



Step 3:

Place the cut contour lines on your cardboard or foam sheets. Use a pencil to trace around the outer contour line. Make sure to label each layer to assemble pieces in the correct order at the end.
(with clay start by rolling out into flat layers.)

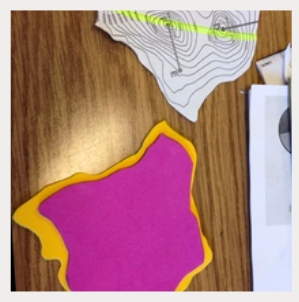


Step 4:

Using scissors and parent supervision, cut out each traced contour layer from the cardboard or foam. Be careful to follow the lines closely. (Press or trace the contour lines into the clay, then carefully cut or mold each layer by hand to match the contour shape)



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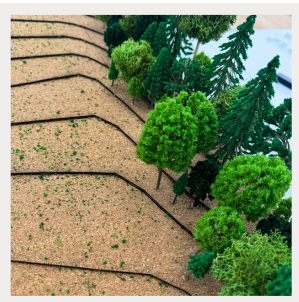
Step 5:

Repeat steps 2-4 for each additional contour line. You should have multiple layers, each representing the different elevations.



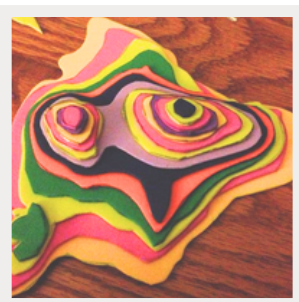
Step 6:

Stack the layers on top of each other from large to small, building up your site model. Using glue to ensure all layers are securely attached. (For clay press each layer firmly to secure it in place and mold the edges to create smooth transitions between levels)



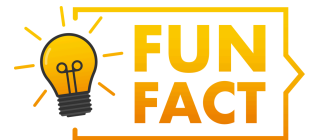
Step 7:

Use markers or paint to decorate your model. You can add mini trees, or buildings to make it more realistic.



Step 8:

You did it! Now your topography contour model is ready for display. Share it with friends and family, explaining how the different elevations work!

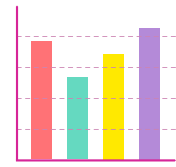


When people study topography, they look at:

- Mountains: Big, high areas that stick up a lot.
- Hills: Smaller than mountains but still raised up.
- Valleys: Low areas between hills or mountains.
- Plains: Large, flat areas with not much change in height.
- Rivers and Lakes: Water bodies shaping the land.



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Hiking Work Sheet

Directions:

Use the topography to make a bar graph as you travel from point A, B, C, and D

