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Name _____

Partner Name _____

Making a Topographic Map

Materials:

- 3 containers of Play-Doh (preferably same kind and color)
- Craft Wire
- Plain paper
- Metric ruler
- Pencil**
- Craft stick

Procedure:

1. Place the dough on your desk and shape it to form an island mountain that is at least ⁵~~10~~ centimeters high with one side obviously steeper than the rest. (Make sure that no part of your mountain hangs over a lower part.) ALSO, make sure your island is no larger than a piece of paper.
2. Make a stream valley from the top of your mountain all the way to the bottom that is about as wide and deep as a pencil. Have your teacher check to make sure that your landform is acceptable before going on.
3. CAREFULLY, remove the landform from your desk and place it in the middle of a plain white piece of paper. Stand the ruler beside your landform and, using the craft stick, make a mark on your dough for every centimeter in height.
4. With your pencil, trace the outside of your landform. You have just made a contour line of your mountain. Label this line 0 cm.
5. Using a long piece of wire in both hands, slice evenly through your landform at the next mark up on your mountain. Carefully, so as to not alter the shape, peel away the upper part of your landform. Carefully, remove the lowest portion you just traced from the paper. Replace the upper portion exactly where it was on the paper and trace the outline of the base of this piece. Label the contour line.
6. Continue step 5 until you reach the top of your mountain. Rebuild your mountain next to your paper and compare your landform to the topographic map you just made. Note the direction the contour lines point when they cross the stream valley. Note how you can tell which side of your landform has the steepest slope.
7. Have the teacher check your map.
8. Divide the play dough into three equal parts and put back into the original container. Answer the conclusion questions and attach your map to this paper.

Conclusion Questions: (PLEASE ANSWER IN COMPLETE SENTENCES)

1. What do the contour lines on a topographic map represent?

elevation and steepness of slope

2. What is the spacing between contour lines on your map?

how steep the slope

3. What do widely spaced contour lines indicate about the shape of the land?

rolling slope (gradual)

4. What do closely spaced contour lines indicate about the shape of the land?

steep slope

5. What pattern do contour lines make as they cross a stream valley?

arrow

6. Describe two ways that you can determine the direction of stream flow on a topographic map.

it is opposite direction of the arrow formed by the contour lines

7. How could topographic maps be useful for people in life?

helps people decide the best routes to take when going somewhere

Conclusion Questions: (PLEASE ANSWER IN COMPLETE SENTENCES)

1. What do the contour lines on a topographic map represent?

The contour lines on the topographic map represent elevation and steepness of slope.

2. What is the spacing between contour lines on your map?

The spacing between contour lines on my map are now steep the slope is.

3. What do widely spaced contour lines indicate about the shape of the land?

widely spaced contour lines indicate a gradually rolling slope.

4. What do closely spaced contour lines indicate about the shape of the land?

Closely spaced contour lines indicate steep and slope.

5. What pattern do contour lines make as they cross a stream valley?

The pattern contour lines make as they cross a stream valley is an arrow.

6. Describe two ways that you can determine the direction of stream flow on a topographic map.

Two ways that you can determine the direction of stream flow on a topographic map would be it is opposite direction of the arrow formed by the contour lines also slope and steep vary.

7. How could topographic maps be useful for people in life?

Topographic maps could be useful for people in life by it helps people decide the best routes to take when going somewhere.

