

# The Empire State in “Profile”

## Lesson for the *Atlas of New York: Legacies of the Erie Canal* New York Geographic Alliance

When we look at most maps, we see the world in just two dimensions. But we live in a 3-D world, and we often need to represent differences in elevation on a map. There are several ways we can do this.

1. Look at the **Elevation Map of New York** on page 5 of the *Atlas of New York: Legacies of the Erie Canal*.

How does this map represent elevation? \_\_\_\_\_

\_\_\_\_\_.

If the map is colored green, then elevation is \_\_\_\_\_; if it's colored purple then, the elevation is \_\_\_\_\_. Therefore, we can tell that Long Island has a \_\_\_\_\_ elevation, and the Catskills have \_\_\_\_\_ elevation. You should also note that there is a “ribbon” of green running west to east through New York. This is *very important* to this lesson!

2. There is a smaller and simpler map in the middle of the page, **Landform Regions**. This shows just two colors, green for \_\_\_\_\_ and purple for \_\_\_\_\_. What lowland is found in western New York?

\_\_\_\_\_ Northeastern New York is mostly an upland called the \_\_\_\_\_.

3. But we are still not seeing in 3-D! These maps are flat. In this activity, we will make a map out of **Geo-Dough**. It will have four colors (green, yellow, orange, and red). The recipe for making the dough is on the last page of this lesson.

Use a piece of cardboard or wax paper for your base. Make a flat layer of green dough for your bottom. Then place a layer of yellow on top of the green, but smaller in size. Next comes an even smaller piece of orange, and finally red for the top layer. It should look something like a wedding cake (but don't eat it!).

On the next page, make a *sketch* of your map. **Color** it.

Does it look like the map on page 5? There is one difference. We can cut into this map. This is how we make a profile – a *side* view. Using a plastic knife, make a cut from left to right (or more geographically, west to east). Choose one of the pieces and make a sketch here showing the four colors:

You have created a *topographic profile*.

4. There are five west-east profiles of New York shown in the *Atlas of New York: Legacies of the Erie Canal* on page 5. Profiles A and B might look a lot like the one you just made. Profile B is especially steep. Why is that so?

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Profile D (in the \_\_\_\_\_ Highlands) goes up and down the most. Can you explain this feature? \_\_\_\_\_

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But Profile C is much flatter. Why? \_\_\_\_\_

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It mostly is inside the “green ribbon” mentioned in Part 1 of this lesson. In 1817 to 1825, the people of New York built a waterway here. What is that waterway called? \_\_\_\_\_

In order to make the *Geo-Dough*, you will need the following (from the [Instructables.com](http://Instructables.com) website):

1 cup Water  
1 1/2 cups Flour  
1/4 cup Salt  
3 Tbsp. Cream of Tartar  
1 Tbsp. Vegetable Oil  
Food Coloring

Mix water, 1 cup of flour, salt, cream of tartar, vegetable oil, and food coloring in a medium sized pot.

Cook over medium heat and stir continuously.

The mixture will begin to boil and start to get chunky.

Keep stirring the mixture until it forms a ball in the center of the pot.

Once a ball forms, place the ball on a lightly floured surface.

Slowly knead the remaining flour into the ball until you've reached a desired consistency.