Student Name: _____   Date: _____

Reading Topographic and Satellite Maps

In this activity, you will look at the topographic map and satellite image of the same area. These areas are:

1. Enchanted Rock
2. Palo Duro Canyon
3. West of Palo Duro canyon, near interstate 27 (note: stay on the Palo Duro Canyon map and move to the left)
4. Big Bend National Park
5. Sealy, TX

For each location, answer the analysis questions based on what you observe.

Directions:

1. Go to http://earthexplorer.usgs.gov.
2. Type the name of the location (ex: "Enchanted Rock") in the search bar on the left side of the page (make sure 'Address/Place' is selected), and click "Show."
3. Click on the link that appears below the search bar.
4. In the upper right, click on the "Map" button, and make sure 'Terrain' is checked. (Note: if the program will not let you select "Terrain," then start over by typing in the location again.)
5. Zoom in all the way to the location on the terrain map (contour lines will appear), and answer the following questions.

Enchanted Rock - Analysis Questions

1. What is the elevation of the highest point of the hill? _____

2. Which side of the hill is the steepest? How do you know? _____

   _____

3. Go back to 'Satellite view' on the map. Which parts of the hill have the least vegetation? What can you

   predict will happen to this rock over time? _____

   _____

Palo Duro Canyon - Analysis Questions

1. Use the mouse to move around the green-colored region to explore the canyon. What is the highest

   elevation that you can see? _____

2. What is the lowest elevation that you can see? _____

3. What is the difference in elevation between the highest and lowest points? _____

   What processes probably created the canyon? Why do you think so?

   _____

   _____

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West of Palo Duro Canyon (near I-27) - Analysis Questions

1. Find a contour line with a number near I-27. Is it at a higher elevation than Palu Duro Canyon, or lower?

   _____

2. Are there more lines? Or fewer? _____

3. Can you describe the terrain based on the topographic lines? _____

   _____

Big Bend National Park – Analysis Questions

1. Move slightly to the left and up to find Backbone Ridge. What are the highest and lowest elevations of

   the ridge?_____

2. Big Bend is in a very dry part of Texas, with monthly rainfall averaging less than an inch during winter

   and spring, and 2 to 3 inches in the summer. Examine the satellite view. How would you describe the

   vegetation for Big Bend?

   _____

3. What processes may account for the shape of Backbone Ridge and the valleys and hills nearby? Why do

   you think so?

   _____

   _____

Sealy, TX – Analysis Questions

1. How many lines can you see in this area? A lot? Or just a few? _____

2. What is the elevation of this area? _____

3. What does the absence of multiple lines tell you about the terrain? _____

   _____

4. Predict future changes in topography this region may have from weathering and erosion.

   _____

   _____