HOW TO READ A Topographic Map

Student Worksheet

One special kind of map is called a **topographic map**. It has contour lines to show the shape and elevation of the land. They are sometimes called "level lines" because they show points that are at the same level. Here's how contour lines work:



The top of this drawing is a contour map showing the hills that are illustrated at the bottom. On this map, the vertical distance between each contour line is 10 feet.

- 1. Which is higher, hill A or hill B?_____
- 2. Which is steeper, hill A or hill B?_____
- 3. How many feet of elevation are there between contour lines?_____
- 4. How high is hill A?_____
- 5. How high is hill B?____
- 6. Are the contour lines closer together on hill A or hill B?_____

Source: Adapted from USGS at egsc.usgs.gov/isb/pubs/teach-pack/mapshow/lesson4.html#activities

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Illustration 2

Look at this picture. It shows a river valley and several nearby hills. On the illustration, locate the following things:

- A church
- A bridge over the river
- An oceanside cliff
- A stream that flows into the main river
- A hill that rises steeply on one side and more smoothly on the other.



Illustration 3

Here is a **topographic map** of the same place. Find the items you located on the illustration on the topographic map.

Circle the symbol for a church.

Draw a church symbol here.

Put a square around the map symbol for a bridge. Draw a bridge symbol here.

Put an X on the oceanside cliff. What is the elevation of the contour line at the top of that cliff?______

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Locate a stream that flows into the main river. Draw a pencil line down that stream. Put an X where the stream joins the main river. On a real **topographic map**, streams are shown in blue and contour lines are shown in brown.

Find the hill that rises steeply on one side and more smoothly on the other. On the **topographic map**, draw a path up the gentler slope of the hill to the highest point. (Hint: remember that when contour lines are close together, the ground is very steep.) Draw a path showing a very steep way up the hill.

Tell how you might use a **topographic map** if you were selecting:

- 1. A route for a hike.
- 2. The best location for an airport.
- 3. A route for a new road.

Use the **topographic map** in your map packet to answer these questions:

What is the approximate elevation of the State Capitol?_____ Would you be walking uphill or downhill to go from the State capitol to Pioneer Park?_____ Suppose you lived by Fremont School. Find at least three ways you could get from

your house to the State capitol._____

List things you would see along the way.