Remote Learning Packet

NB: Please keep all work produced this week. Details regarding how to turn in this work will be forthcoming.

April 13-17, 2020

Course:

Teacher(s):

Weekly Plan:

Monday, April 13
☐ Practice the Star-Splitter
☐ Why maps and kinds of maps

Tuesday, April 14
☐ Practice the Star-Splitter
☐ How to read a map/features of maps
☐ Reading Maps exercise

Wednesday, April 15
☐ Practice the Star-Splitter
☐ Make a map

Thursday, April 16
☐ Practice the Star-Splitter
☐ How to read a topographic map

Friday, April 17
☐ Practice the Star-Splitter
☐ Reading a Topographic Map Worksheet

Statement of Academic Honesty

I affirm that the work completed from the packet is mine and that I completed it independently.

I affirm that, to the best of my knowledge, my child completed this work independently

_____
Student Signature

_____
Parent Signature

Monday, April 13

- Starting from "don't call it blamed…" spend 5-10 minutes reciting the Star-Splitter and try to get to the line "we don't cut off from our church suppers."
    - Reminder: Continue to use and add in the personality of each character as you learn new lines.
- Try to find a map in your home or in your book, and write down what features it contains on a sheet of notebook paper (you may be able to find maps in fiction books such as Lord of the Rings or the Chronicles of Narnia)
- Read through the "Why maps" section below. On the same sheet of paper write down the different kinds of maps and what information they convey.
    - Write a sentence identifying what kind of map is the map you found (it might fit into more than one category).

Tuesday, April 14

- Starting from "don't call it blamed…" spend 5-10 minutes reciting the Star-Splitter and try to get to the line "Uneaten, unworn out, or undisposed of."
- Read through the section below titled "Reading Maps." Take notes on the key features of a map.
- Complete the "Reading Maps Exercise" section of the packet on the same sheet of notebook paper.

Wednesday, April 15

- Starting from "don't call it blamed…" spend 5-10 minutes reciting the Star-Splitter and try to get to the line "Beyond the age of being given one for Christmas gift."
- Complete the "Making a Map" exercise

Thursday, April 16

- Starting from "don't call it blamed…" spend 10-15 minutes reciting the Star-Splitter and be sure to get to the line "He took a strange thing to be roguish over"
- Read through the "Reading a topographic map" section below and take notes .

Friday, April 17

- Starting from the very beginning, spend 5-10 minutes reciting the Star-Splitter, trying to recite up to "He took a strange thing to be roguish over" without looking at the poem.
- Complete the "Reading a Topographic Map" Worksheet, omitting 25, 26, and 33.

Why Maps

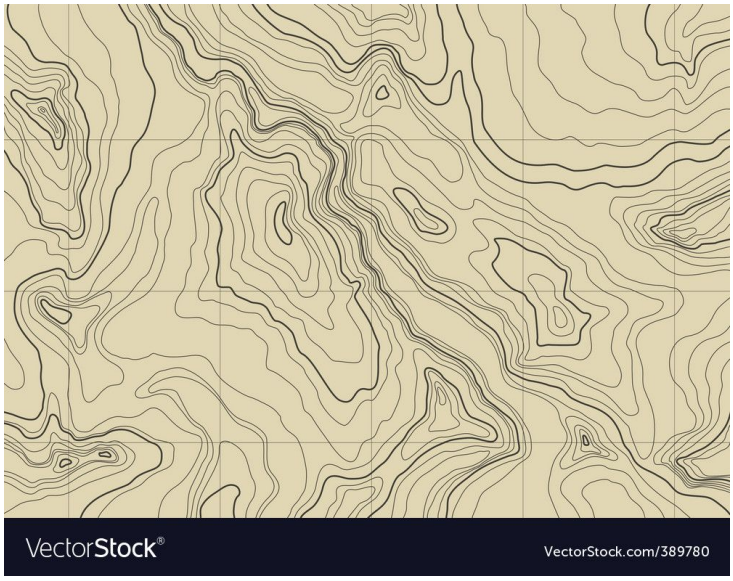
Recall Brad Mclaughlin's words that "the best thing that we're put here for's to see." He uses a telescope to help him see places and things he normally can't see. Maps serve a similar function. With a map we can see places we've never been or call to mind places we've seen but are far away. They aid us in finding our way in unfamiliar territory. Maps help us to understand the people that live in a certain place and the history of that location and those people; J.R.R. Tolkien famously started writing Lord of the Rings with a map, and made the story fit.

There are several different kinds of maps, and each type conveys important information about a place. Listed below are some of the most common types of maps.

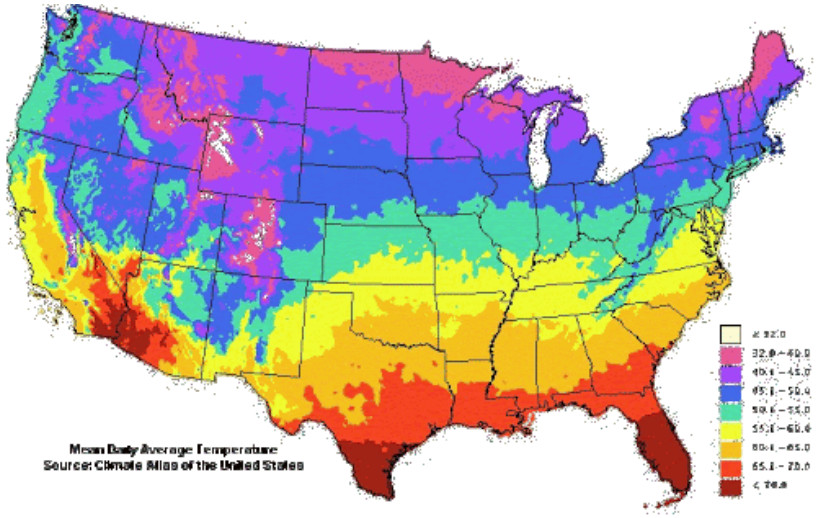
1. Political Maps- These maps convey information about national, state, county, or city borders, include the locations of major cities or buildings, and usually do not include many or any features of the terrain. Example:

2. Physical Maps- These kinds of maps usually include some of the information found in political maps, but primarily convey information about the terrain of a particular place; locations of forests, rivers, deserts, lakes, and other features are found on these kinds of maps. Example:

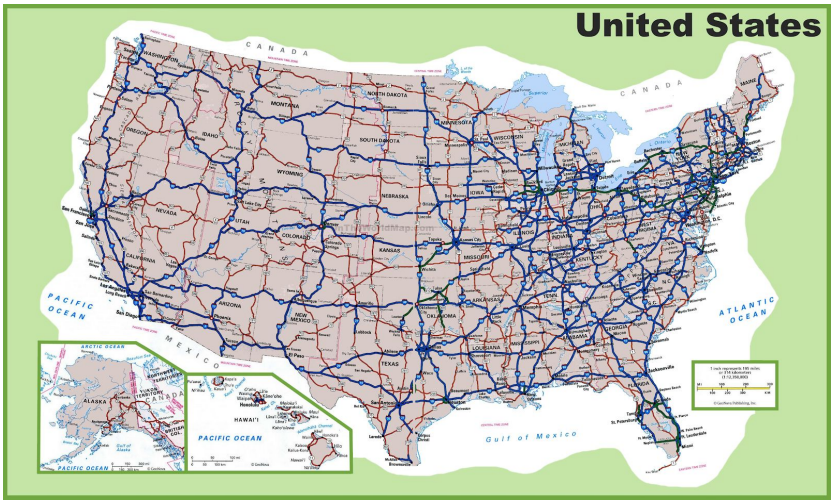
3. Topographic Map- these maps include detailed information of the elevation (height above sea level) of a place and how it changes; lines called contour lines provide a means to show three-dimensional elevation on a two-dimensional map. Example:



4. Climate Map- these maps convey information about the climate of a location, showing differences in average rainfall, average temperature, number of days of sunshine, and other features of the climate. Example:



5. Road Map- these maps convey information about the major and minor roads and highways, and often include the location of major travel hubs such as airports, train stations, and bus stations. Example:



There are other kinds of maps as well. Maps can show population, economic status of individuals or sovereignties, voting patterns, and much else. The 5 types listed above are just some of the most common ones.

Reading Maps

A map is a symbolic representation of selected characteristics of a place, usually drawn on a flat surface. Maps present information about the world in a simple, visual way. They teach about the world by showing sizes and shapes of countries, locations of features, and distances between places. Maps can show distributions of things over Earth, such as settlement patterns. They can show exact locations of houses and streets in a city neighborhood.

Mapmakers, called cartographers, create maps for many different purposes. Vacationers use road maps to plot routes for their trips. Meteorologists—scientists who study weather—use weather maps to prepare forecasts. City planners decide where to put hospitals and parks with the help of maps that show land features and how the land is currently being used.

Some common features of maps include scale, symbols, and grids.

Scale

All maps are scale models of reality. A map's scale indicates the relationship between the distances on the map and the actual distances on Earth. This relationship can be expressed by a graphic scale, a verbal scale, or a representative fraction.

The most common type of graphic scale looks like a ruler. Also called a bar scale, it is simply a horizontal line marked off in miles, kilometers, or some other unit measuring distance.

The verbal scale is a sentence that relates distance on the map to distance on Earth. For example, a verbal scale might say, "one centimeter represents one kilometer" or "one inch represents eight miles."

The representative fraction does not have specific units. It is shown as a fraction or ratio—for example, 1/1,000,000 or 1:1,000,000. This means that any given unit of measure on the map is equal to one million of that unit on Earth. So, 1 centimeter on the map represents 1,000,000 centimeters on Earth, or 10 kilometers. One inch on the map represents 1,000,000 inches on Earth, or a little less than 16 miles.

The size of the area covered helps determine the scale of a map. A map that shows an area in great detail, such as a street map of a neighborhood, is called a large-scale map because objects on the map are relatively large. A map of a larger area, such as a continent or the world, is called a small-scale map because objects on the map are relatively small.

Today, maps are often computerized. Many computerized maps allow the viewer to zoom in and out, changing the scale of the map. A person may begin by looking at the map of an entire city that only shows major roads and then zoom in so that every street in a neighborhood is visible.

Symbols

Cartographers use symbols to represent geographic features. For example, black dots represent cities, circled stars represent capital cities, and different sorts of lines represent boundaries, roads, highways, and rivers. Colors are often used as symbols. Green is often used for forests, tan for deserts, and blue for water. A map usually has a legend, or key, that gives the scale of the map and explains what the various symbols represent.

Some maps show relief, or changes in elevation. A common way to show relief is contour lines, also called topographic lines. These are lines that connect points that have equal elevation. If a map shows a large enough area, contour lines form circles.

A group of contour line circles inside one another indicates a change in elevation. As elevation increases, these contour line circles indicate a hill. As elevation decreases, contour line circles indicate a depression in the earth, such as a basin.

Grids

Many maps include a grid pattern, or a series of crossing lines that create squares or rectangles. The grid helps people locate places on the map. On small-scale maps, the grid is often made up of latitude and longitude lines. Latitude lines run east-west around the globe, parallel to the Equator, an imaginary line that circles the middle of the Earth. Longitude lines run north-south, from pole to pole. Latitude and longitude lines are numbered. The intersection of latitude and longitude lines, called coordinates, identify the exact location of a place.

On maps showing greater detail, the grid is often given numbers and letters. The boxes made by the grid may be called A, B, C, and so on across the top of the map, and 1, 2, 3, and so on across the left side. In the map's index, a park's location might be given as B4. The user finds the park by looking in the box where column B and row 4 cross.

Other Map Features: DOGSTAILS

Along with scale, symbols, and grids, other features appear regularly on maps. A good way to remember these features is DOGSTAILS: date, orientation, grid, scale, title, author, index, legend, and sources.

Title, date, author, and sources usually appear on the map though not always together. The map's title tells what the map is about, revealing the map's purpose and content. For example, a map might be titled "Political Map of the World" or "Battle of Gettysburg, 1863."

“Date” refers to either the time the map was made or the date relevant to the information on the map. A map of areas threatened by a wildfire, for instance, would have a date, and perhaps even a time, to track the progress of the wildfire. A historical map of the ancient Sumerian Empire would have a date range of between 5,000 B.C. and 1,000 B.C.

Noting a map’s author is important because the cartographer’s perspective will be reflected in the content. Assessing accuracy and objectivity also requires checking sources. A map’s sources are where the author of the map got his or her information. A map of a school district may list the U.S. Census Bureau, global positioning system (GPS) technology, and the school district’s own records as its sources.

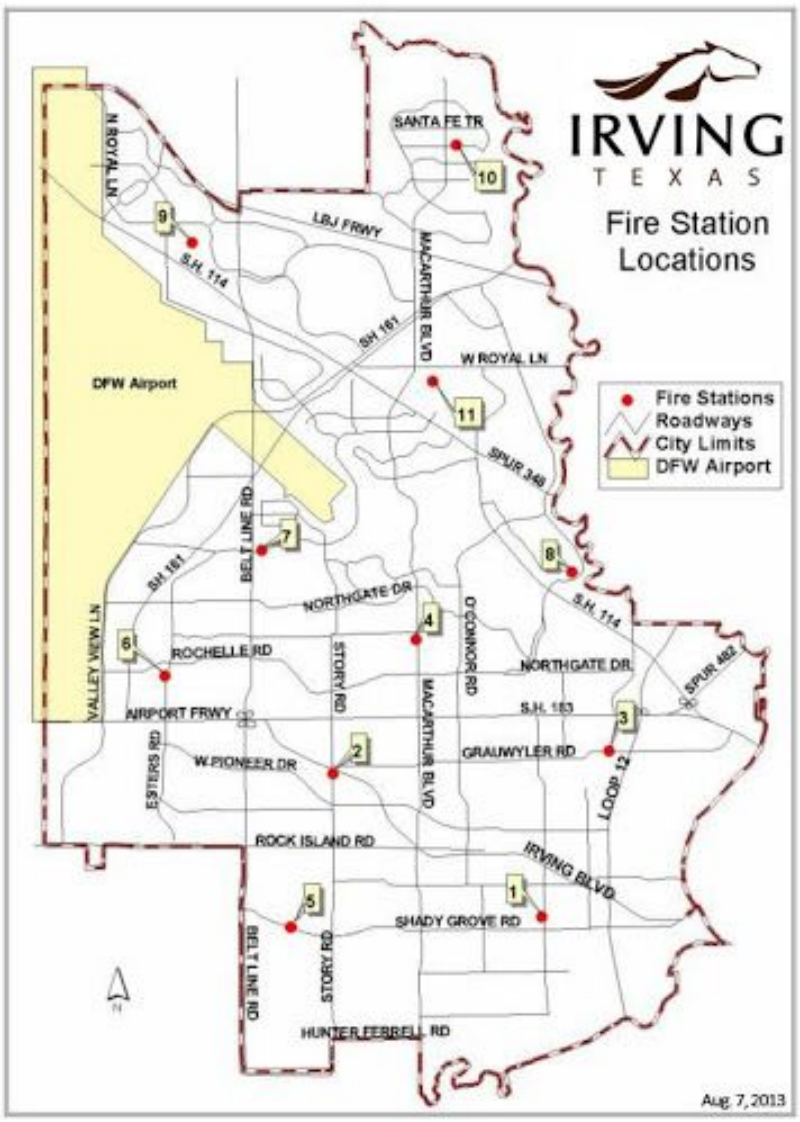
Orientation refers to the presence of a compass rose or simply an arrow indicating directions on the map. If only an arrow is used, the arrow usually points north.

A map’s index helps viewers find a specific spot on the map using the grid. A map’s legend explains what the symbols on a map mean.

Source: National Geographic

Reading Maps Exercise

Instructions: Use the map below to answer the following questions in complete sentences.



1. Which of the five types of maps discussed does this map most closely resemble?
2. What is the primary purpose of this map?
3. What symbols are used in this map?
4. In this map, which direction is North (up down left or right)?
5. What major feature(s) are present on this map? Which ones are missing?

Making a Map

Procedure:

1. Choose a room in your house or a location outside to make a map of.
2. On a clean sheet of paper (printer paper, graph paper, or notebook paper), begin by putting your name and the date in the upper left hand corner. Put a title for the map in the center of the top of the page based on what you chose to map. Then, begin the map by drawing the border of the room or location you are mapping.
3. Draw lines to separate your map into a grid and label the columns with numbers and the rows with letters.
4. Take note of the major features and objects in the room and draw them on your map using different symbols for different kinds of objects and features.
5. Make a legend, identifying the symbols with the type of object or feature that it represents.
6. On the back of the paper, label what important objects or features are in which square on the grid.
7. Optional: use a tape measure, ruler, or eyeball estimate to make a scale for your map. Measure the length of one of the borders of the room, and then measure how long it is on your map. Divide the second measurement by the first one to get your scale. For instance, if one edge of the room is 15 feet, and it is 5 inches long on your map, then your scale is 1 inch = 3 feet (5in/15feet = 1in/3ft).

Reading a Topographic Map

As we learned earlier, topographic maps contain a number of lines called contour lines which convey information about the elevation of the terrain being mapped. Contour lines show where on the map the elevation is the same; everything that lies on a single contour line is at the same elevation. There are several important principles to keep in mind when reading a topographic map:

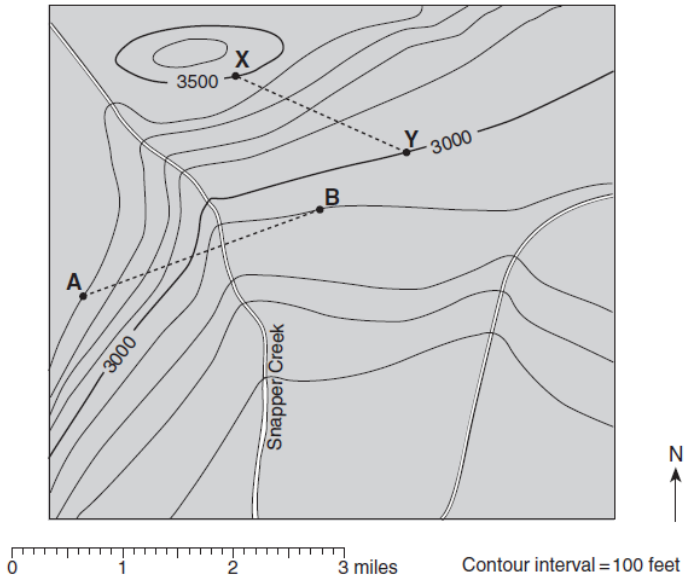
1. The change in elevation between contour lines is equal. Going from one contour line to another adjacent contour line represents the same amount of elevation change no matter where you are looking on the map. This is important for being able to map the steepness of changes in elevation (see #3).
2. Contour lines never cross. Remember that everything along a contour line has the same elevation; if two lines crossed, then a single place would be said to have two different elevations, which cannot be true.
3. The closer together contour lines are, the steeper the slope. Going from one contour line to the other means that your elevation is changing, and it's always changing the same amount from one contour line to the next. If the vertical distance you are going is the same, but the horizontal difference is changing, then the steepness is changing. You can think of the difference between a staircase and a ramp; they both go the same distance up, but the horizontal distance it takes to get there is different. The stairs are steeper because they cover the same vertical distance in less horizontal distance.
4. A contour line which forms a U or V shape is either a ridge or a valley. If it is a ridge, then the contour lines on either side should be going down in elevation; if it is a valley, they should be going up. The V always points uphill for a valley and downhill for a ridge. This should help identify which direction water is flowing, as water always flows downhill.
5. Contour lines close; that is, they often take irregular paths but the end will meet up at the beginning so that they form a loop.
6. The elevation between contour lines is never more than the elevation of the higher contour line.
7. The smallest loops represent either peaks or valleys. If the tick marks on the contour line go out from the loop, then the small loop is a peak; if they point inwards, then it is a valley.


Gentle Slope
Steep Slope
Valley
Hill
Ridge
Corroboree Flat
342
226
Creek
Linkenbeg
254
Linkenbeg
200
Eureka
Creek
Captain
Spur
276
Creek
377
358
300
Clarke Saddle
Reynolds Saddle
300
PARK
405
423
Hamilton

Name _____ Period _____ Date _____

Topographic Map Reading Worksheet

Use the following topographic map to answer questions 1-8.



1. What is the elevation at point A? _____

2. What is the elevation at point B? _____

3. What is the elevation at the point on line A-B where it crosses Snapper Creek?

   _____

4. If you walked from point A to point B along line A-B, would you be walking downhill or uphill, or both? In what direction would you be walking? Explain your answer, stating the elevations at point A, Snapper Creek and point B.

   _____

   _____

5. What is the elevation of the highest point shown on the map? _____

6. What is the elevation at point X? _____

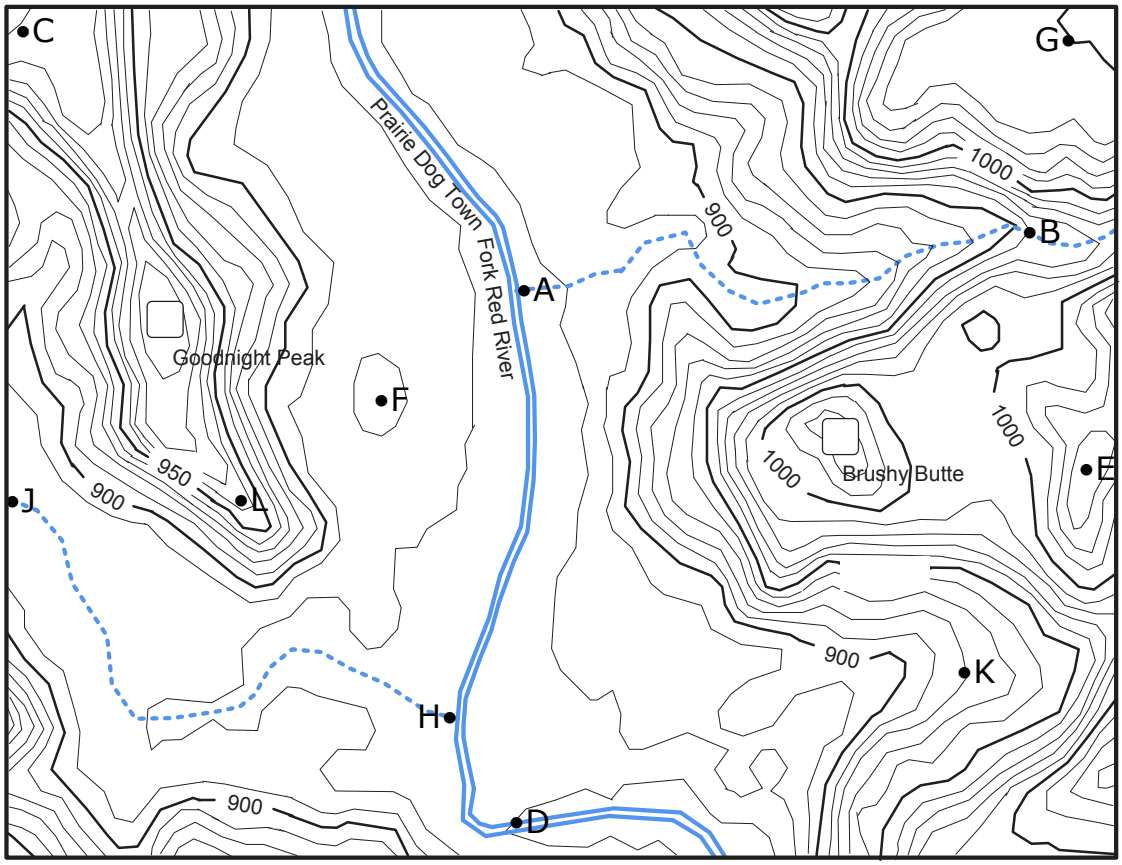
7. What is the elevation at point Y? _____

8. If you walked from point X to point Y along line X-Y, would you be walking downhill or uphill, or both? In what direction would you be walking? Explain your answer, stating the elevations at point X and point Y. _____

   _____

   _____

Use the following topographic map from Palo Duro Canyon State Park in west Texas to answer questions 9 - 33.



Contour Interval = 10 meters

1.0 km

9. What is the elevation of Goodnight Peak? _____

10. What is the elevation of Brushy Butte? _____

11. What is the elevation of point A? _____

12. What is the elevation of point B? _____

13. If you walked along the creek from point A to point B, what would be the total change in elevation? _____ In what direction would you be walking? _____

14. What is the elevation of point C? _____

15. What is the elevation of point D? _____

16. What is the elevation of point E? _____

17. What is the elevation of point F? _____

18. What is the elevation of point G? _____

19. What is the elevation of point H? _____

20. What is the elevation of point J? _____

21. If you walked along the creek from point H to point J, what would be the total change in elevation? _____ In what direction would you be walking? _____

22. What is the lowest labeled point on the map? _____

23. What is the highest labeled point on the map? _____

24. In what direction is the river at the center of the map flowing? _____

25. Put a small star on the map where the slope is the steepest.

26. Put a small triangle on the map where the slope is the flattest.

27. Is point K in a valley or a ridge? _____

28. Is point L in a valley or a ridge? _____

29. What is the distance from point A to point F, to the nearest tenth of a kilometer? _____

30. What is the distance from point H to point D, to the nearest tenth of a kilometer? _____

31. What is the distance from point B to point E, to the nearest tenth of a kilometer? _____

32. What is the distance from Goodnight Peak to point L, to the nearest tenth of a kilometer? _____

33. If you could travel in time and visit the park shown on the map 100,000 years in the future, what changes do you think will have taken place to the elevations of Goodnight Peak and Brushy Butte? Explain your answer. _____

_____

_____

_____