MAP ACTIVITY: USA Drainage Basins name ____

1. Draw a line around the Mississippi and its tributaries, including all the land that drains into them. Your line should not cross any rivers. Label this area the "Mississippi Basin", and then use a colored pencil to shade it in.

Estimate the percentage of land in the lower 48 states that sends its runoff into the Mississippi River: ______%. The Mississippi carries this water to the ______of_____.

3. Locate the Colorado River and its tributaries. (NOTE: There are two Colorado Rivers. Use the one that starts in Colorado.) Draw a line around its drainage basin, use a different color to shade it in, and then label it the "Colorado River Basin".

4. Repeat step 3 for the Columbia, the Rio Grande, and the St. Lawrence Rivers. Use a different color for each basin and label them. The St. Lawrence basin includes the Great Lakes.

5. Draw a dark line from Canada to Mexico to show the location of the Continental Divide.

6. Mark the approximate location of Butte and Helena on your map, using a **star** for Helena and an **X** for Butte. **NOTE: Butte is west of the divide.**

7. *Explain what a "divide" is. (text page 121 may be helpful) Use sentences for those with asterisks.

8. In which ocean might motor oil that runs off the streets of Butte end up in?

If snow on the mountains between Helena and Great Falls melts and runs off, Where will it end up? (Which part of the ocean?)

9. In which state are the "headwaters" of the Mississippi located?

In which state are the headwaters of the Missouri River located?

In which state is the "mouth" of the Mississippi located?

10. Parts of three drainage basins (on your map) can be found in Colorado. List these three.

11. What is the source of water in the St. Lawrence River? _______

12. Near which large city is the "confluence" of the Missouri and Mississippi Rivers located?

13. Where is the confluence of the Missouri and Yellowstone Rivers located?

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14. Is Helena considered to be part of the "Upper" (higher elevation), or part of the "Lower Missouri Basin?"

15. ON YOUR MAP there are some rivers that do not drain to the ocean. In what two states are these rivers located?

16. Look at figure 5.2 on page 119. In which three ways does water return to the ocean?

- 17. What is the word that means . . .
 - a. Movement of water through soil and rock beneath the ground:

b. Evaporation of water through the leaves of plants:

- 18. Look at figure 5.4.
 - a. *Explain what the Yellowstone River Drainage Basin is.

b. Toward what direction does the water in the Yellowstone River flow?

- c. The Yellowstone is a tributary of the <u>River</u>
- d. Which two larger basins is the Yellowstone Basin part of?
- 19. Look at figure 5.5 and think about the Missouri River. Which zone best represents the Missouri River as it flows through our area?
- 20. Look at table 5.1 on p. 124. The discharge of the Amazon River is 7,500,000 cfs (cubic feet per second).
 - a. *Explain what this means without using any form of the word *discharge*.
 - b. How many times greater is this than the discharge of the Mississippi River? (You'll need a calculator.)
- 21.*Read page 126. Explain the difference between suspended load and bed load. Which one can be seen in figure 5.11?
- 22.*Figure 5.18 is titled "Stream erodes its floodplain". Explain what has happened (over a long period of time) in this series of diagrams without using the word *floodplain*.

- 23.*Look at all the images and read the captions in figure 5.12. Why is the erosion of the valley most intense on the outside of the river bends?
- 24.*Examine figure 5.13. Explain how an oxbow lake forms. (2 major steps)

- 25. *Read "Valley Deepening" and "Valley Widening" and then compare figures 5.17 and 5.18 C. Explain why one river "down-cutting", whereas the other is "eroding its floodplain" without using the words *gradient* or *base level*?
- 26. *What is the point of the 4 small diagrams in figure 5.20?
- 27.*Carefully examine figure 5.21 and read the caption. What do the numbers indicate?
- 28.*Look at figure 5.22. What is a floodplain? (your own words)

29.*Read **Students sometimes ask** on page 138. What is meant by the phrase "100-year flood"?

30. Do question #2 on page 153. Put your answers in the spaces below.

River #1

| River #2 | River #3 | |
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River #4