

**Assignment #8**

**name:**

**JET STREAMS**

Go to <http://formontana.net> and then click on picture #23. Look at the image and read the explanation below the image.

1. How many balloons did the Japanese launch during WWII? How many landed in Montana?
2. What weather phenomenon did the Japanese know about that Americans were unaware of?
3. Why do forecasters like to know the location and speed of the jet stream?
4. Why were the B-29 pilots (WWII) the first Americans to experience the jet stream?
5. How do meteorologists keep track of where the jet stream is everyday?
6. What event compelled the Japanese to get revenge against America?
7. What did they hope would happen as a result of the bombs?
8. According to the map which bomb location is closest to where you live?

Go to <http://formontana.net> and then click on picture # 88.

9. This map shows the amount of radioactive fallout received by each county as a result of nuclear testing in Nevada during the 1950s. The bright orange areas received the most. Use your Montana Highway Map to figure out the names of three Montana counties that are bright orange.

10. What caused so much of the radioactive iodine (fallout) to end up in Montana?
  
11. Eventually our government decided to test nuclear bombs below the ground to avoid putting so much radioactive dust into the air. During which years was the testing done above ground?
  
12. Why was the fallout only dangerous for a couple months?
  
13. How did the radioactive iodine usually get from the grass into the bodies of people?
  
14. What part of the human body would have absorbed most of the radioactive iodine (contained in the fallout or dust)?
  
15. What can the iodine cause to happen, often decades later?
  
16. Why did kids tend to ingest more of the radioactive material than adults?
  
17. There once was a family that lived in Blaine County (north-central Montana) in the 1950s. Rather than buying their milk at a store, this family kept a milk cow in the barn. Why was this type of milk more dangerous than milk purchased in a store? NOTE: Pasteurization and processing of the milk does not remove radioactivity.
  
18. What is taking place in the photo shown on the web page and how could this cause someone who grew up in northern Blaine County in the 1950's to get thyroid cancer as a middle-aged person?

## **WEATHER BALLOONS**

Go to <http://formontana.net> and then click on picture # 41.

19. Which two national Weather Service Centers in Montana do not release weather balloons?
  
20. How many sites throughout the world release weather balloons twice daily?
  
21. What are five types of information (data) does the radiosonde (box of sensors attached to weather balloon) provide for meteorologists?
  
  
  
  
  
  
  
  
  
  
22. How does the data get back to the National Weather Service Center (where the balloon was released from)?
  
  
  
  
  
  
  
  
  
  
23. Why is it so important to know where the jet stream is?
  
  
  
  
  
  
  
  
  
  
24. What eventually happens to the balloons as they rise through the atmosphere?
  
  
  
  
  
  
  
  
  
  
25. What does the National Weather Service hope people will do with radiosondes if they find them?