



## Real-Time Air Pressure Data

A. Scientist: \_\_\_\_\_

Date: \_\_\_\_\_

Time: \_\_\_\_\_ (include AM or PM)

### B. INQUIRY QUESTION

Does elevation affect air pressure?



### C. TESTABLE QUESTION

Is the air pressure near sea level greater than the air pressure at higher elevations?

### D. PREDICTION

I predict that...

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### E. MATERIALS

- Computer with Internet access
- Pencil

### F. PROCEDURE

1. Go to <http://www.sccoos.org/outreach/dana/mets>
2. Scroll down the page and look below the map at the “Now Showing” section. Click on the arrow next to the channel to view the menu of options. Select “Atmospheric Pressure” from the menu.
3. Once all of the data has loaded, choose a station and click on the circle to select it.
4. Record the following information for the station in the data table:
  - Station Location
  - Date – The date is listed as year, month, day (for example, 2006-10-26 is October 26, 2006)
  - Time (local time) – The time is listed in military time. See the table on the next page to help you convert it to standard time.
  - Elevation (meters)
  - Air Pressure (millibars)
5. Choose nine other stations and complete the data table.

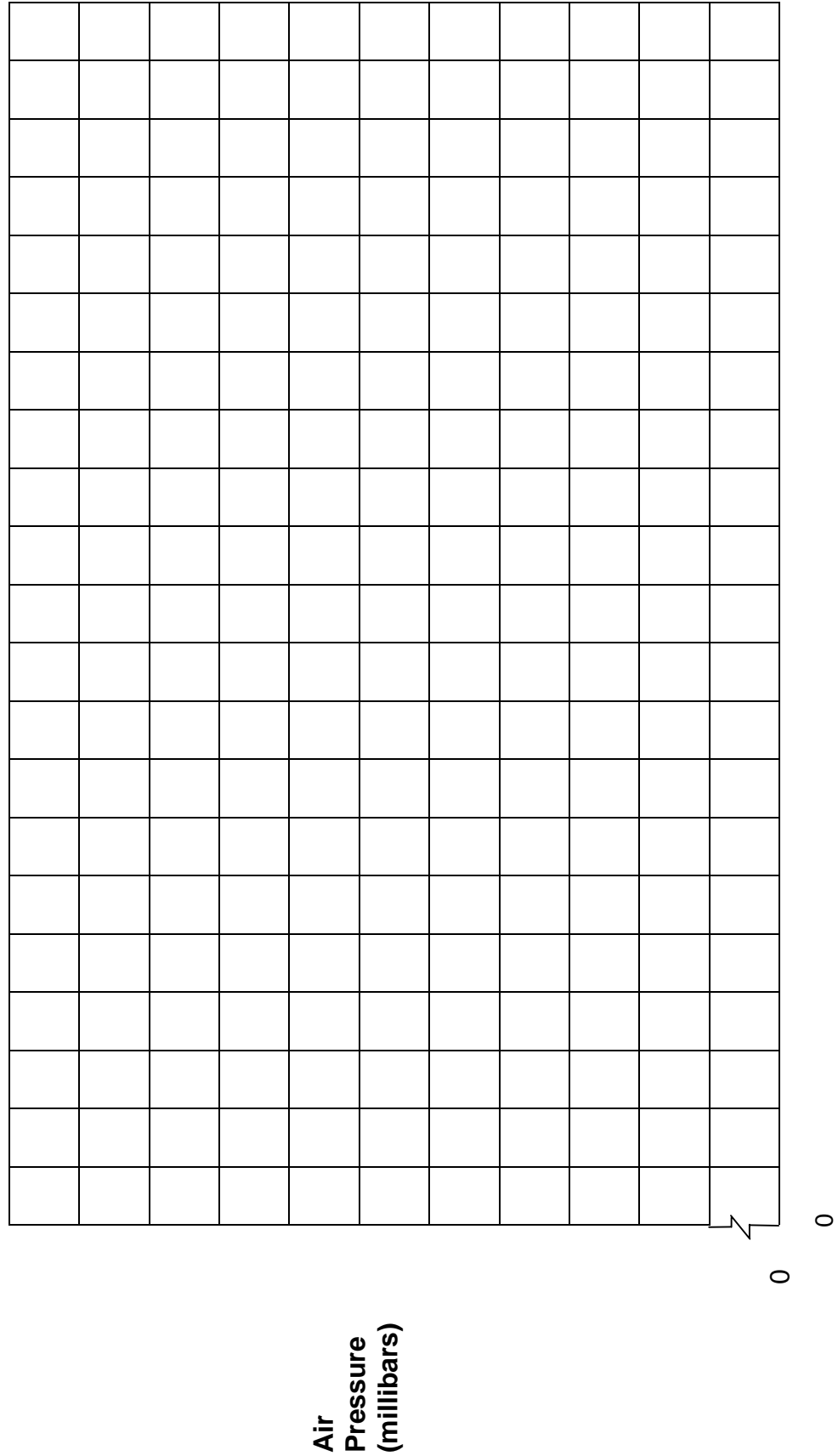
6. After you have completed the data table, create a line graph that compares elevation with air pressure.

Military Time Converted to Standard Time			
Military Time	Standard Time	Military Time	Standard Time
01:00	1 AM	13:00	1 PM
02:00	2 AM	14:00	2 PM
03:00	3 AM	15:00	3 PM
04:00	4 AM	16:00	4 PM
05:00	5 AM	17:00	5 PM
06:00	6 AM	18:00	6 PM
07:00	7 AM	19:00	7 PM
08:00	8 AM	20:00	8 PM
09:00	9 AM	21:00	9 PM
10:00	10 AM	22:00	10 PM
11:00	11 AM	23:00	11 PM
12:00	12 PM (Noon)	00:00	12 AM (Midnight)

**G. DATA AND OBSERVATIONS**

<b>Station Location</b>	<b>Date</b>	<b>Time</b>	<b>Elevation (meters)</b>	<b>Station Pressure (millibars)</b>

**Graph: Elevation vs. Air Pressure**



**H. CONCLUSION**

Today I learned that...

Be sure to include the answers to the following questions.

1. Which station had the greatest air pressure? What is the elevation there?

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2. Which station had the least air pressure? What is the elevation there?

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3. After reviewing the data, what is the relationship between air pressure and elevation? Why do you think that is?

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**I. LINE OF LEARNING**

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**J. NEW VOCABULARY**

List any new vocabulary words you learned from doing this investigation. Use the glossary to write the definitions of each word.