Student Sheet   Name_____

Title: Weather Watchers

Introduction: Weather is often a topic of conversation. We want to know what to wear, where we can go and what we can do when we get there. Imagine taking a ski trip in summer or a trip to the amusement park in winter. Many scientists are studying the long-term weather patterns that we call climate. In this activity, you will monitor the short-term changes that we call weather. You will compare different weather factors such as temperature and humidity and see if you can discover how they are related.

Materials:

Procedures:
1. Listen carefully as your teacher describes how each weather instrument will be used and what it measures. Fill in the "materials" as you go. You may be chosen to collect this data.
2. Write down the data collected by your class each day of this activity. Make a forecast for the next day.
3. Graph the data and look for patterns and relationships.
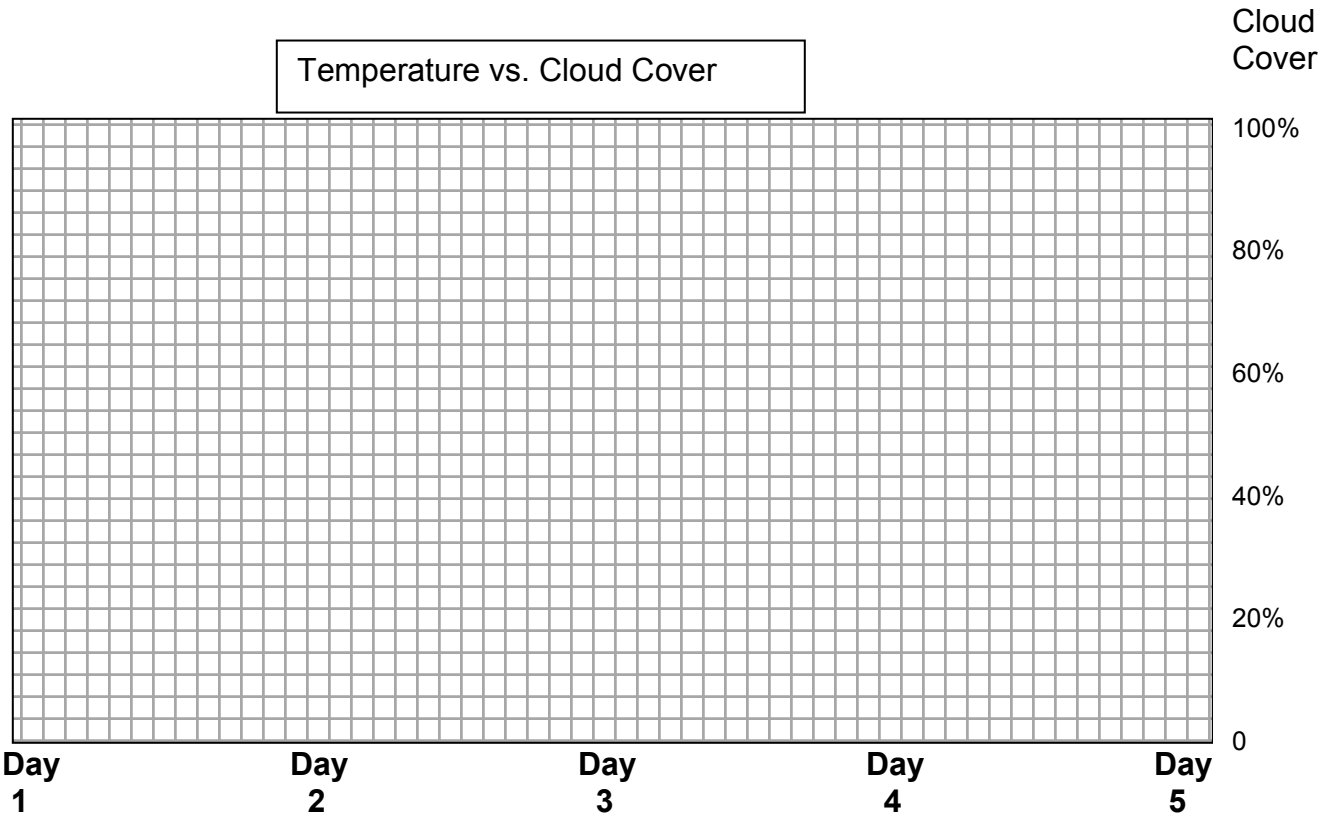4. Answer the analysis questions using the graphs you create.

Data:

Weather Factor	Day 1	Day 2	Day 3	Day 4	Day 5
Air Pressure					
Temperature (degrees C)					
Wind Speed (mph)					
Relative Humidity %					
Cloud Cover (% sky covered)					
Forecast					

Graphs

Air pressure vs. Temperature

Day 1   Day 2   Day 3   Day 4   Day 5
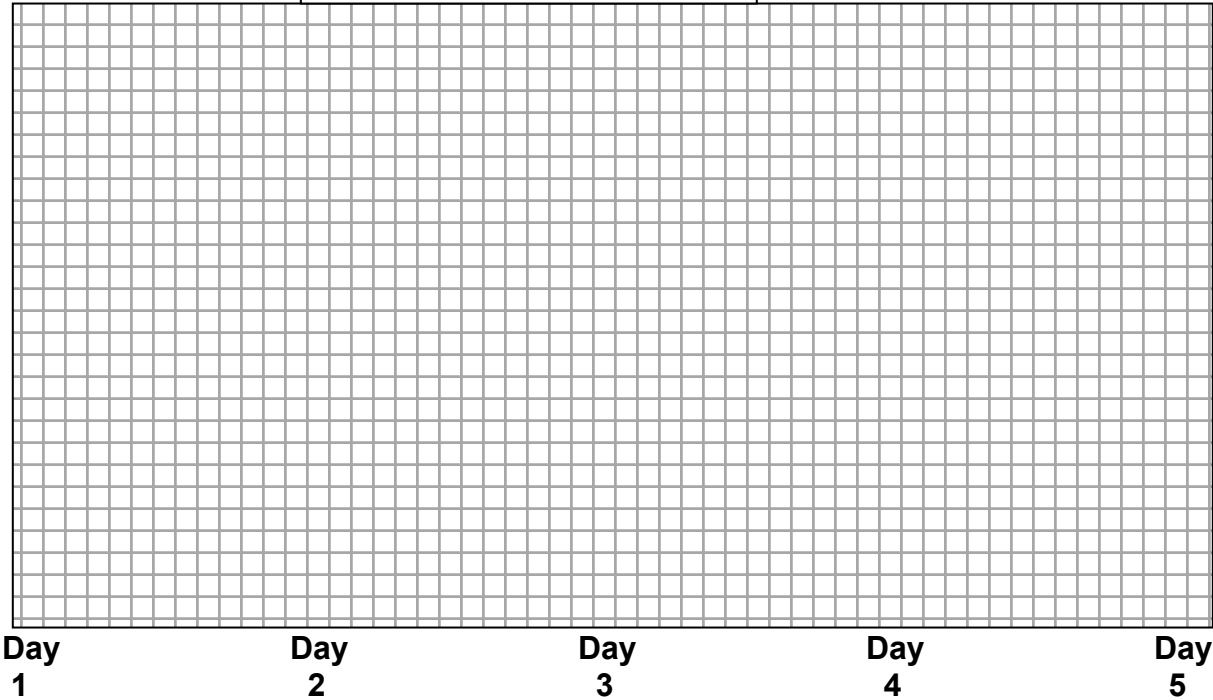
Cloud Cover

Temperature vs. Cloud Cover

100%

80%

60%

40%

20%

0

Day 1   Day 2   Day 3   Day 4   Day 5

Air pressure vs. cloud cover

Cloud Cover

100%

80%

60%

40%

20%

0%

Day 1 **Day 2** **Day 3** **Day 4** **Day 5**

Temperature vs. Relative Humidity

Relative Humidity

100%

80%

60%

40%

20%

0%

Day 1 **Day 2** **Day 3** **Day 4** **Day 5**

Analysis:

1. How are air pressure and temperature related? (use your graph)

2. Why might they have this relationship?

3. How are temperature and cloud cover related?

4. Why might this be so?

5. How are air pressure and cloud cover related?

6. Why might this be so?

7. How are temperature and relative humidity related?

8. Why might this be so?

9. What day had the largest change in weather factors?

10. What happened that day?

11. If air pressure were rising, what would you expect temperature and cloud cover to do?

12. If air pressure were falling, what would you expect temperature and cloud cover to do?

13. Which weather factor seems to give the best prediction of what weather will be coming?

Conclusion: