

Name: _____

Period: _____

OROGRAPHIC LIFTING

DIRECTIONS: Use the information provided in the Keynote Presentation to complete the following questions.

1. What motion of the air causes low pressure (and "lousy" weather)? _____
2. What is orographic lifting? _____
3. What is the side of a mountain that faces a prevailing wind called? _____
4. What is the side that faces away from the prevailing wind called? _____
5. Explore through the slides to see what happens to the air as it passes up and over the mountain. Record the data in the table below.

| SIDE | ALTITUDE | TEMPERATURE | DEWPOINT | RELATIVE HUMIDITY |
|-----------------|-----------------|--------------------|-----------------|--------------------------|
| WINDWARD | 1,000 ft. | | | |
| | 2,000 ft. | | | |
| | 3,000 ft. | | | |
| | 4,000 ft. | | | |
| | 5,000 ft. | | | |
| | 6,000 ft. | | | |
| LEEWARD | 5,000 ft. | | | |
| | 4,000 ft. | | | |
| | 3,000 ft. | | | |
| | 2,000 ft. | | | |
| | 1,000 ft. | | | |

6. On which side of the mountain and at what altitude did clouds form? Explain why.

7. Describe the climate experienced on the windward side of a mountain.

8. Describe the climate experienced on the leeward side of a mountain.

9. Record your answers to the Regents questions here: #1: __, #2: __, #3: __, #4: __, #5: __