Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hour: \_\_\_\_\_\_\_

**What Causes Wind?**

**STARTER**

1. Read the section called “Pressure and Air Motion” on page 45 in your textbook.
2. **How do differences in air pressure affect the movement of air?**

**DEMONSTRATION**

1. What teacher during the demonstration
2. **How did the balloons move?**
3. **Why did the air make them move this way?**

**READING**

1. Read page 47.
2. **What is the relationship between air pressure and wind?**

**VIDEO SEGMENT**

1. Warm, rising air creates \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pressure.
2. Cold, dense air creates \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pressure.

**READING**

1. Read the top half of page 48. Use the text to understand the illustration called “How Wind Forms.”
2. **What type of pressure is created by warm, rising air?**
3. **What type of pressure is created by cool, sinking air?**
4. **What role does the Sun play in the formation of wind?**
5. **What factor determines the strength of wind?**

**NOTES:** Your teacher will explain the next step.

**READING**

1. Read the bottom half of page 48 and all of page 49.
2. **What causes global winds?**
3. **In which direction do winds curve in the Northern Hemisphere?**

**DEMONSTRATION**

1. Watch your teacher during the demonstration.
2. **How did the rotation affect the lines that were drawn?**
3. **How does this activity demonstrate the Coriolis Effect?**
4. **How might changing the speed at which the balloon is rotated affect the results?**

**READING**

1. Read the section on page 52 called “Jet Streams flow near the top of the Troposphere.”
2. **How does the Jet Stream affect the weather?**
3. **How does the Jet Stream affect air travel?**

**The Atmosphere Has Wind Patterns**

**SUN**

**GROUND**

**Ground**

Wind is the movement of air from areas of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pressure to areas of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pressure.

**Review Questions**

1. How does the uneven heating of Earth’s surface cause winds to flow? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. If Earth did not rotate, global winds would flow directly from the poles to the equator. How does Earth’s rotation affect the movement of winds on earth? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. Give an example that explains how a jet stream influences our weather. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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