

## POLAR BEARS AND PENGUINS QUESTIONS

NAME \_\_\_\_\_

### Purpose

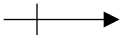
To understand polarity and bonding between atoms.

### Instructions

Read the comic strip "The Bare Essentials of Polarity," and use it to answer these questions.

1. How does the comic strip define a polar molecule?
2. Define electronegativity as you understand it, after reading the first two pages of the comic strip.
3. What is the artist trying to represent by two polar bears arm wrestling or two penguins arm wrestling?
4. What three types of bonds are represented on the third page of the comic strip? What happens to the bonding electrons in each type of bond?
5. Explain why there are four scoops of ice cream in the illustration of  $O_2$  on the third page.
6. What do the six scoops of ice cream represent in the illustration of  $N_2$  on the fourth page?
7. Describe what you think is happening to the penguin in the  $CO_2$  molecule in the picture on the fourth page.
8. Name three things that the picture of  $CO_2$  on the fourth page illustrates about the molecule.

9. Describe what you think is happening to the penguins in the illustration of H<sub>2</sub>O on the fourth page.

10. What does the crossed arrow represent in the comic strip? 

11. What are two of the definitions of dipole given in the comic strip?

12. **Making Sense** What does electronegativity have to do with polarity?