

## Student Comprehension Worksheet

**Directions:** After reading the online *Science News* article "[Beets bleed red but a chemistry tweak can create a blue hue](#)," answer the following questions.

1. What literary device is used to hook the reader? Paraphrase the information given.
2. Why can't chemists get natural blue colorings from certain blue animals for use in cosmetics and other products?
3. Why are natural blue pigments from foods, like blueberries, hard to bottle and use in cosmetics and other products?
4. What is one technique that chemists use to adjust the colors of pigment molecules? Explain why the technique changes the color of the pigment molecule.
5. How did chemists use this technique to create a blue dye from beets? Make sure to mention what molecules were used.
6. What did chemists do to test the dye's durability? What were the results of those tests?
7. Is the blue dye toxic? Is it safe for people to consume? Explain.