

Student Comprehension Worksheet

Directions: Read the online *Science News* article "[This weird chemical bond acts like a mash-up of hydrogen and covalent bonds](#)," which explores a new type of chemical bond. A version of the story, "Chemical bond acts like a mash-up," can be found in the January 30, 2021 issue of *Science News*.

- 1. Define hydrogen bonds and covalent bonds based on the information provided in the *Science News* article. Of the two types of bonds, which is not considered a "true chemical bond?"**
- 2. What is the new type of bond that scientists discovered? What makes it special?**
- 3. Where was the new bond found? Name and describe the molecule that contains the new bond.**
- 4. According to the rules of chemistry, how should the molecule have been bound together? How was the molecule actually bound together?**
- 5. What did computer simulations reveal about the new bond's behavior?**
- 6. What does chemist Bogdan Dereka say about the discovery?**
- 7. Why is understanding strong hydrogen bonds important?**
- 8. What are the big-picture implications of the discovery?**