

**Main Ideas, Key Points,
Questions:**

After watching the video segment, write down key points, main ideas and big questions.

Objective(s):

- *To use simulations to investigate all types of intramolecular bonds, including double and triple covalent bonds.*

Notes:

During the video segment, use words, phrases or drawings to take notes.

Summary:

After watching the video segment, write at least three sentences explaining what you learned. You can ask yourself: "If I was going to explain this to someone else, what would I say?"

After watching the video and performing any associated labs and/or experiments, you should be able to answer the following:

You should have used this website as a simulation of intramolecular bond formation:

<https://phet.colorado.edu/en/simulation/legacy/molecule-polarity>

Use your experience using this simulation to answer the following questions:

- 1. If two atoms form a mostly ionic bond, what is the range of differences between their electronegativities?**
- 2. If two atoms form a polar covalent bond, what is the range of differences between their electronegativities?**
- 3. If two atoms form a mostly covalent bond, what is the range of differences between their electronegativities?**
- 4. If two atoms form a nonpolar covalent bond, what is the range of differences between their electronegativities?**
- 5. Why are some elements such as hydrogen, often found as diatomic molecules?**
- 6. How do double and triple covalent bonds form?**