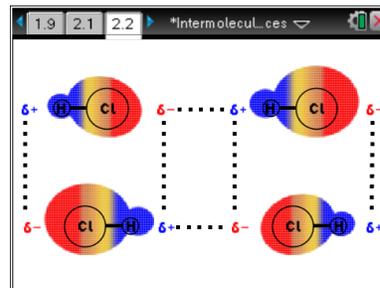


Move to pages 2.1 and 2.2.

3. Read and follow the instructions on page 2.1 and observe the simulation on page 2.2.

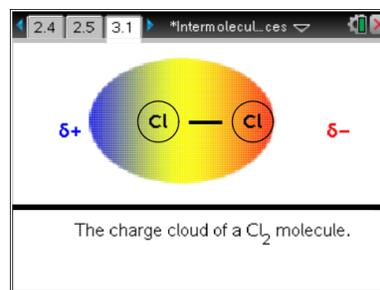


Move to pages 2.3–2.5. Answer the following questions here or in the .tns file.

- Q6. The attractive forces are between the ____ end of a HCl molecule and the ____ end of another HCl molecule.
- | | |
|-----------------------|-----------------------|
| A. positive, positive | C. negative, negative |
| B. positive, negative | D. hydrogen, hydrogen |
- Q7. The lines of force between HCl molecules ____ as the charge cloud changes.
- | | |
|--------------------|-----------|
| A. remain constant | C. change |
|--------------------|-----------|
- Q8. The intermolecular forces between HCl molecules are ____.
- | | |
|---|-------------------------|
| A. induced dipole-induced dipole (London dispersion) forces | C. dipole-dipole forces |
| B. dipole-induced dipole forces | D. ionic bonds |

Move to page 3.1.

4. Observe the simulation on page 3.1.



Move to pages 3.2 and 3.3. Answer the following questions here or in the .tns file.

- Q9. The positive charge for Cl₂ ____.
- | | |
|---|---|
| A. remains on the left end of the molecule | C. oscillates regularly between the right and left ends |
| B. remains on the right end of the molecule | D. moves randomly between the right and left ends |
- Q10. Cl₂ _____. (More than one response may be correct.)
- | | |
|----------------------------|----------------------------------|
| A. is a non-polar molecule | C. has a permanent dipole moment |
| B. is a polar molecule | D. has a temporary dipole moment |

