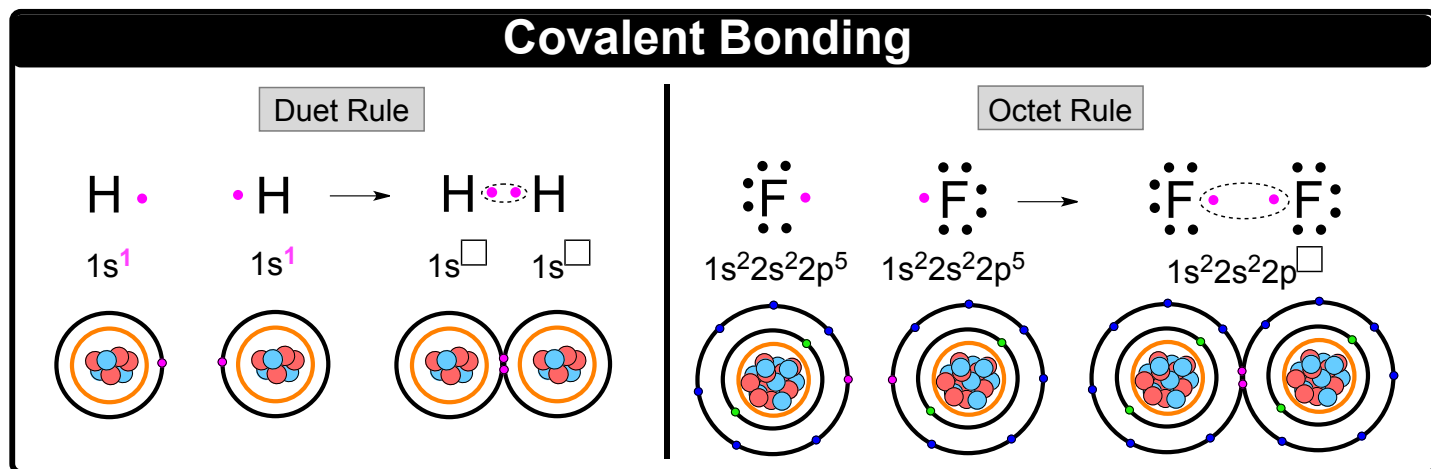


CONCEPT: COVALENT BONDS

Covalent Bonding

- A key feature of *covalent compounds* where molecular bonds involve sharing of valence electrons between _____.
 - Recall, they do this to achieve _____ valence electrons or _____ outer shell like the Noble Gases.
 - Octet Rule:** When an element reacts in order to achieve _____ valence electrons.
 - Duet Rule:** When the element of hydrogen reacts in order to achieve _____ valence electrons.

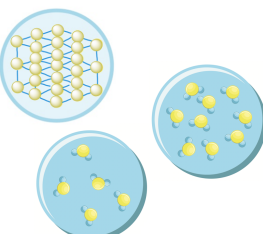
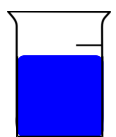



EXAMPLE: Which of these elements is unlikely to form covalent bonds?

- a) S b) H c) K d) Ar e) Si

Covalent Compound Properties

- Covalent compounds tend to have the opposite trend of ionic compounds when it comes to their properties.

Covalent Compound Properties		
Physical State  ____, _____, or _____ at room temperature	Conductivity  _____ electrical conductors (not easily dissolved)	Temperature  _____ Melting Points _____ Boiling Points

EXAMPLE: Which of the following compounds is expected to have the lowest boiling point?

- a) LiBr b) SO₂ c) Na d) ZnCl₂ e) Pb