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Lewis Dot Structures Activity 3

Guidelines for Drawing Lewis Dot Structures for Molecules:

1. The octet rule¹ says that atoms "try" to have 8 valence electrons by sharing or transferring electrons to form compounds. Hydrogen only has 2 electrons in its "octet".
2. Put the atom which can share the most electrons in the middle.
3. Some atoms can share two or three pairs of electrons (usually it is either C, N, or O)
4. put the hydrogen atoms on last
5. hydrogen NEVER shares two pairs of electrons.
6. fluorine NEVER shares two pairs of electrons.
7. fluorine ALWAYS obeys the octet rule.
8. Any structure which obeys the octet rule (and makes chemical sense) is more 'correct' than any structure that violates the octet rule.

i. HF	j. H ₂ O
k. CH ₄	l. PH ₃
m. BeF ₂	n. N ₂

¹ There are a couple exceptions to the octet rule: Atoms from groups 1, 2, and 3 usually can not form enough bonds to have an octet. Atoms from groups 15, 16, and 17 can have more than an octet when attached to a large number of atoms.

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Lewis Dot Structures Activity 4

o. OH^{1-}	p. H_3O^{1+}
q. C_2H_6	r. NH_4^{1+}
s. C_2F_2	t. NH_3
u. NO_3^{1-}	v. O_2