

Types of Electron Pairs:

Diatomic Elements

Lone Pairs (a.k.a. unshared pairs):

There are 7 elements that are always found as two atoms bonded together.

Bonding Pairs (a.k.a shared pairs):

Lewis Structures show the _____ and _____ in a molecule.

Steps for Drawing Lewis Structures

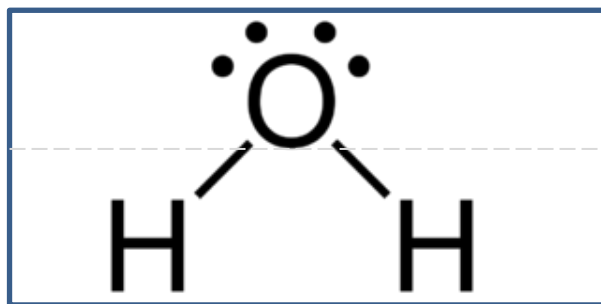
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Paste Types of Covalent Bonds
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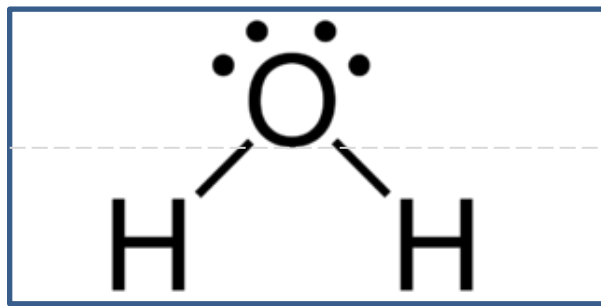
Periodic Table of the Elements

1	2																	18	19
H	He																	Ne	Ar
3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
Li	Be	B	C	N	O	F	Ne	Na	Mg	Al	Si	P	S	Cl	Ar	K	Ca		
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38		
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr		
39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56		
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe		
57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74		
Cs	Ba	La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf		
75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92		
Rn	Fr	Ra	Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr		



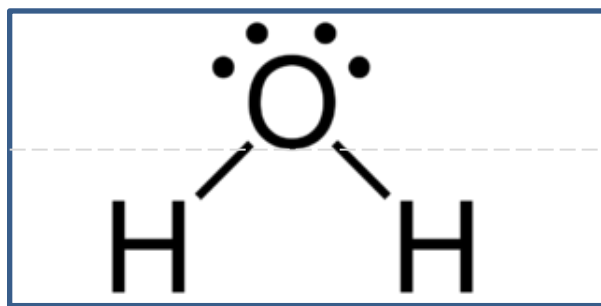
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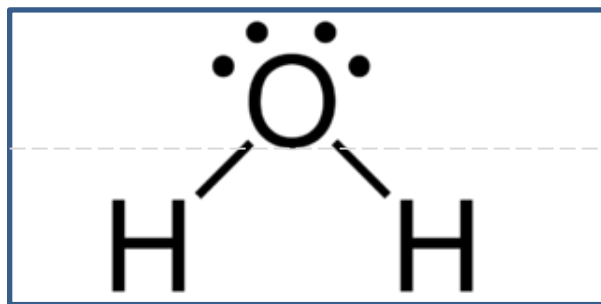
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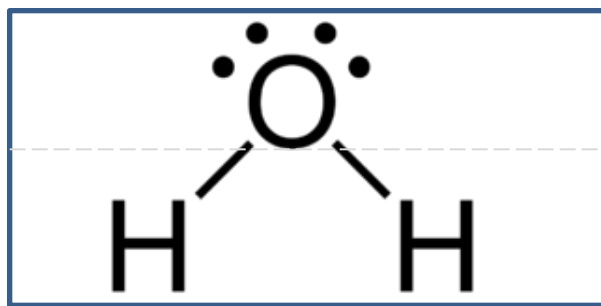
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Types of Covalent Bonds

2 atoms share _____ electrons

- _____ than single and double bonds

- _____ than single and double bonds

Example: ethyne (C_2H_2)

Triple Bonds

2 atoms share _____ electrons

- _____ bond

- _____ bond

Example: ethane (C_2H_6)

Single Bonds

2 atoms share _____ electrons

- _____ than single bonds

- _____ than single bonds

Example: ethene (C_2H_4)

Double Bonds

Types of Covalent Bonds

2 atoms share _____ electrons

- _____ than single and double bonds

- _____ than single and double bonds

Example: ethyne (C_2H_2)

Triple Bonds

2 atoms share _____ electrons

- _____ bond

- _____ bond

Example: ethane (C_2H_6)

Single Bonds

2 atoms share _____ electrons

- _____ than single bonds

- _____ than single bonds

Example: ethene (C_2H_4)

Double Bonds