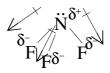
1.

a) ionic

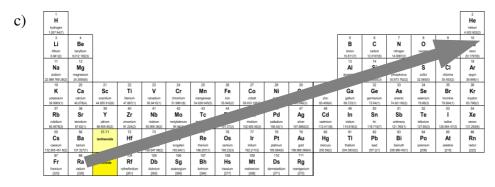
b) metallic

c) covalent

2.



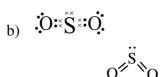
- a) non-bonding
- b) they repel the bonding electrons



- d) the electronegativity difference means the electrons will be unequally shared
- e) polar
- f) (see above)
- g) (see above)
- h) The bond dipoles share a common direction.
- The partial positives and negatives attract.
- j) Dipole-dipole

3.





H\*Č\*H



4. Strongest: Metallic Weakest: Dispersion

- 5. Iron oxide
- 6. Malleable / ductile / lustrous / high melting point / conducts heat /electricity

7.

- a) Flowing charges
- b) (show electron taken from metal to nonmetal, leading to positive and negative ions)
- c) Ions are charges
- d) O
- e) The electronegativity difference between K and O is enough that the electrons will be transferred. Both potassium and calcium have low electronegativities so they will just share their valence electrons.
- f) Positive and negative attract