Crash Course IMF Video

https://www.youtube.com/watch?v=BqQJPCdmlp8
Special Examples of IMFs
**Important Example of H-Bonding**

**DNA**  
Alpha helix shape-
Nucleic acids “bond” A to T and C to G

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Generic DNA picture

H bonds
Please highlight the Hydrogen Bonds on your little Glue-In paper

A·T base pair

G·C base pair
Proteins – chain of amino acids
Secondary structures: beta sheets and alpha helix

Heme

Hemoglobin protein
Bulk Solids
Interactions in solids

COMBINATION OF:
intramolecular AND intermolecular forces in a “large” or “bulk” scale

3 TYPES
Metallic (weakest)
Ionic Lattice (middle)
Network covalent (strongest)

Bulk solids have very high melting/boiling points because there are SO MANY inter and intra molecular forces holding the atoms close together
**METALLIC**
Metal ions stack in an ordered fashion held together by the “sea of electrons” and the positive metal ions

*Example: Fe*

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**IONIC LATTICE**
ions stack in an ordered fashion to form crystals

*Example: NaCl*
NETWORK COVALENT (Diamond/Graphite = C, SiO$_2$) covalently bonded atoms in a continuous network

Example: Carbon

DIAMONDS

GRAPHITE
Overall Ranking

- Nonpolar Covalent (LDF)
- Polar Covalent (DP-DP)
- Polar Covalent (H-Bond)
- Metallic Bond
- Ionic Bond
- Network Covalent

Weakest
Least
IMFs

Strongest
Most
IMFs
HOW DO GECKOS DEFY GRAVITY?

Geckos

https://www.youtube.com/watch?v=YeSuQm7KfaE
**p. 150 – Reading**

- It is a class copy – please don’t write on the paper directly
- Divide your paper in half so you have a top half for notes and the bottom half for the next part.
- Take notes on p. 150
- Talk about what you are reading in your groups. This will make the next part easier!

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Pick three examples from your reading.

Write a small paragraph about each one. FULL SENTENCES! It should be several sentences each.

Must fill half the page!

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