## PART A: PERIODIC TABLE REVIEW GROUP ACTIVITY

Diagram Letter	Α	В	С	D	Ε	F	G	Н	I	J	К
Atomic # for each paper diagram											
Element Symbol for each paper diagram (write in <u>later</u> )											

Atomic # for each whiteboard diagram				
Symbol for each whiteboard diagram (write in <u>later</u> )				

→ TO BEGIN, USING THE 11 PAPER "DOT DIAGRAMS" in each envelope, do the following:

[IMPORTANT: Please do NOT write on the diagrams themselves!]

**1.** Fill in the **ATOMIC NUMBER** of each element in the table above under the diagram's letter

- 2. What ASSUMPTION did you have to make to do #1?\_\_\_\_\_
- 3. Now place the atom diagrams on the square layout to represent the proper arrangement of elements (in ROWS AND COLUMNS) for the first 3 rows of the Periodic Table.

NOTE: YOU WILL HAVE 7 EMPTY BOXES WITHOUT AN ELEMENT!

- 4. **Raise your hand** to get your final arrangement checked by a member of the TEACHING TEAM.
- 5. What is **similar** in all diagrams in the **same ROW**?

What is **similar** in all diagrams in the same COLUMN?

→ These similarities are the KEY to describing the basis for the structure of the Periodic Table!

6. On your whiteboards, make dot diagrams of the 7 elements that belong in the empty boxes, by using this principle of the basis for the structure of the Periodic Table.

➔ As you draw them <u>ARRANGE THEM in their proper ROW & COLUMN PLACES</u>

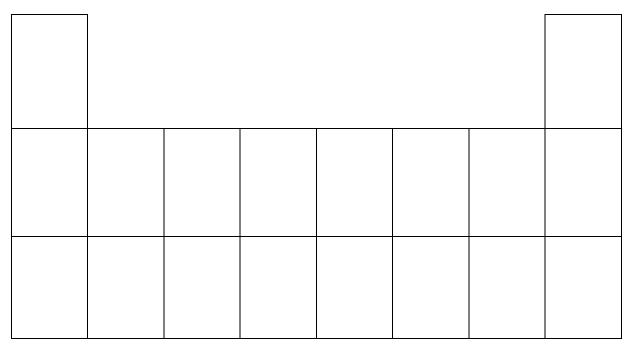
7. A copy of the COMPLETE Periodic Table will be given to your table. Use it to fill in the ELEMENT SYMBOLS (e.g., H for Hydrogen) in the table at the top of this page for each paper diagram element and each element drawn on your whiteboard.

NOW, ERASE THE WHITEBOARD – WE'LL CONTINUE WITH PART B IN A MOMENT .....

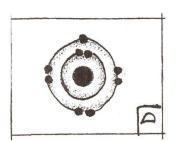
## PART B: MAKING MOLECULES

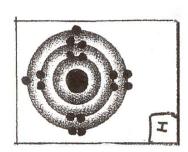
## 1) Based on PART A, fill in the element name, symbols, and atomic #s

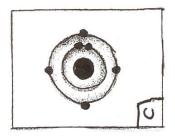
for the first 3 rows in their proper arrangement of the periodic table:

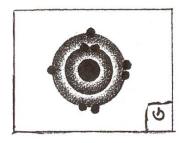


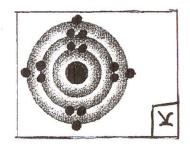
- 2) Then on your WHITEBOARDS, combine these elements into as many different molecules that you can think of which are important to processes in nature that relate to the topic of GLOBAL CLIMATE CHANGE. (The substances might be in a gas, liquid, or solid form of matter.) (e.g.,  $O + O = O_2$ )
- 3) **Select a speaker** to share the molecules your group came up with and how they might be related to processes in nature that relate to Global Climate Change.
- **BONUS Q:** Using only 3 or 4 molecules, (like those in #2 above), write out a simple CHEMICAL REACTION equation that takes place in nature and is related to the topic of Global Climate Change:

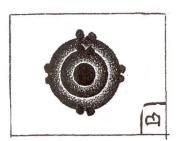


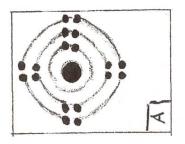


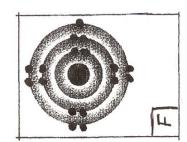




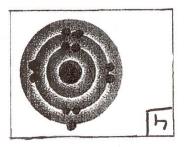


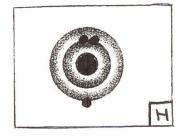






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of the f		

Place the dot diagrams in their correct locations on this outline