

PERIODIC TABLE GAME



Objective:

Students will demonstrate the periodic trends and identify the chemical families of the periodic table by labeling a provided periodic table.

Materials (per team of 4):

- 1 - periodic table game board
- 1 - set of cards with names and arrows

Advance Preparation:

Make periodic table game boards by enlarging the provided image and then glueing it on poster board. The key is already included in the diagram. Laminate the boards for durability. Copy the words and arrows onto card stock and then cut them apart. In order to help with organization, print the card sets on different colors. Each team gets a different color. These sets can be stored in envelopes. Color coding allows for easy separation if the words and arrows get mixed together.

Procedure:

1. Group students into teams.
2. Have the students, working as a team, explore by placing all the cards on the periodic table where they see fit.

3. Once every team has finished, walk the students through the trends and families of the periodic table by going over the correct card placements.
4. **IMPORTANT**: Prior to playing the game for a grade, allow students to practice as a team by following the game rules as many times as they wish.

Game Play!!

1. Cards are turned face down and shuffled by one person in the group.
2. Students are NOT allowed to talk once cards are in play.
3. Cards are dealt one at a time in a circle, face down to all players.
4. Students are allowed to look at their own cards, but they cannot show their cards to anyone else.
5. Students are not to talk or help another student during anytime during official play. Motioning answers with hands or eyes is off limits!
6. **“A card laid, is a card played.”** Once students move to play a card, they must commit to that position.
7. Play progresses clockwise from the dealer.
8. If a card is played incorrectly, a second card can be laid on top of it. The person playing the incorrect card will lose the points.
9. Once all cards are played, all students on the team hold their hands up high and back away from the table.
10. Each incorrect card deducts 5 point for the student. If all students on the team make a 90 or higher (miss no more than 2 cards), everyone on the team gets a **5 point bonus**. This small bonus provides team incentive.
11. After practicing for the big game, get students ready for the final assessment. Keep the room very quiet during this activity. All

student teams can play this game at one time. Once groups are ready, let them mix and deal the cards face down. Once all cards are dealt, begin the game.

12. After all students have backed away from the table, grade the games by checking card placements. Identify incorrect cards to determine final scores.

Assessment:

In this cooperative learning activity, students work as a team to complete the game. However, they are held individually accountable for their cards with names and arrows that communicate their knowledge of structures and the blood flow. Five points are deducted for each card played incorrectly. (Although all cards are played together, students will readily volunteer information on card placement to determine the grades. Students are eager to play the game and are successful because they are prepared.) If each team member makes a 90 or higher, each person on the team gets a 5 point bonus on the final, individual score.

Atomic Radius

Atomic Radius

Atomic Radius

Atomic Radius

Electronegativity

Electronegativity

Ionization Energy

Ionization Energy

Ionization Energy

Ionization Energy

Electronegativity

Electronegativity

Group Number

2

2

Atomic Number

2

2

Atomic Mass

2

2

Element Symbol

2

Element Name

Metals

Transition Metals

Non-Metals

Lanthanide

Metalloids

Actinides

Alkali Metals

Halogens

Alkaline Earth Metals

Noble Gases

Diagram illustrating the periodic table with annotations. A callout box for Carbon (C) shows its atomic number (6), symbol (C), and name (Carbon). Purple arrows point to various elements in the table, and yellow dots are placed at specific locations. A key at the bottom left explains the symbols: a yellow dot for 'Arrow' and a purple line for 'Words'.

1																	18	
1	H																	He
2	Li	Be											B	C	N	O	F	Ne
3	Na	Mg											Al	Si	P	S	Cl	Ar
4	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
5	Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
6	Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn
7	Fr	Ra	Lr	Rf	Db	Sg	Bh	Hs	Mt	Ds	Rg	Uub	Uut	Uuq	Uup	Uub	Uus	Uuo

La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr

KEY
 Arrow ●
 Words —