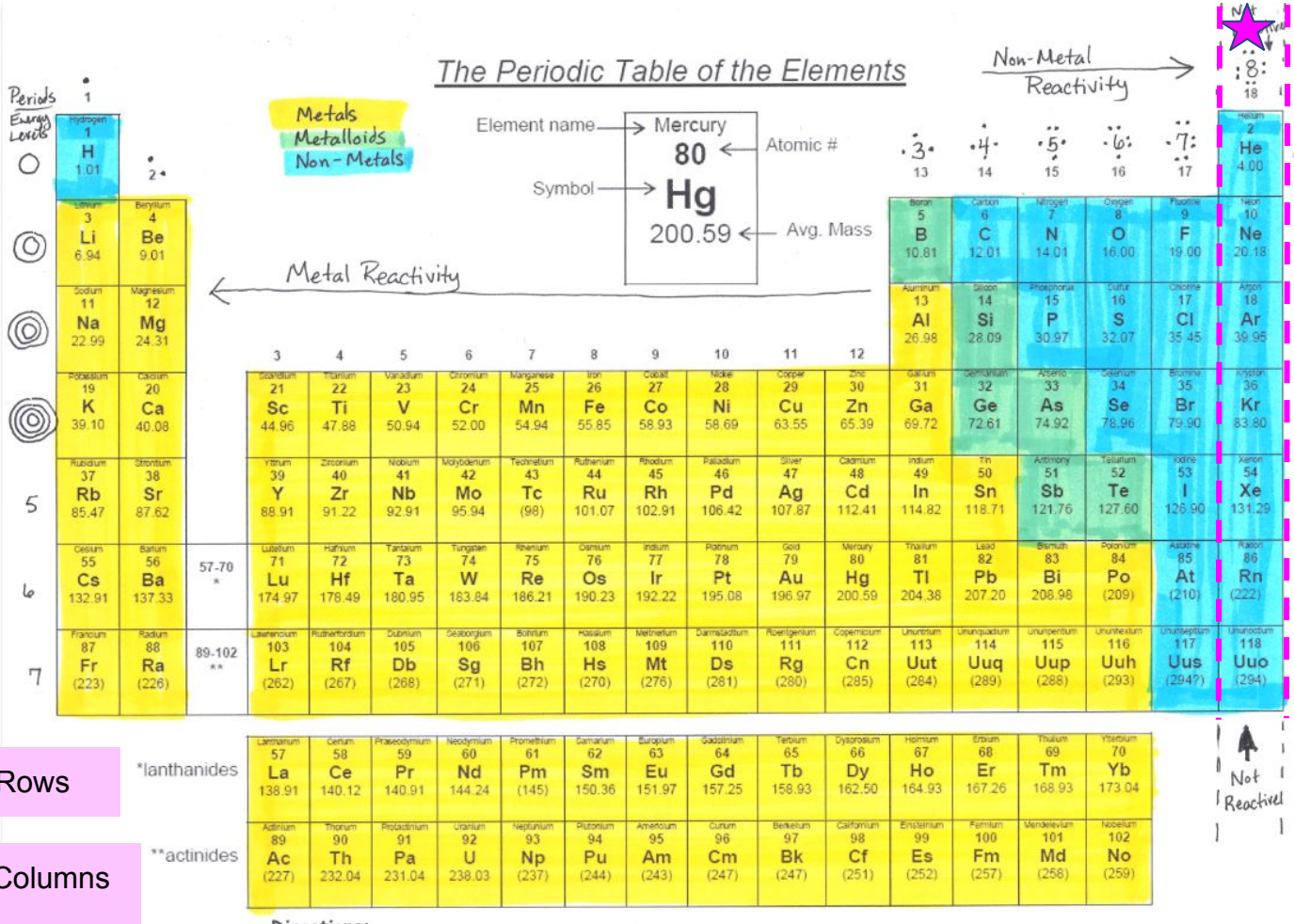


Group is **Not** Reactive - Noble Gases
(outer energy shell complete with valence electrons)

Periods = Rows

Groups = Columns
(also called Families)

Directions:

1. Color the metals yellow.
2. Color the metalloids green.
4. Number the periods and circle each number with the correct amount of energy shells.
5. Label each group with the number of valence electrons using a dot around each number.

Periodic Table Handout

- You need to get some colors (either thin marker or colored pencil)
- You will need the following colors: Pink, Blue, Yellow, Purple

GROUPS VS. PERIODS **Definitions:** Groups (families/columns) Periods (rows) **Arranged according to:** Groups: Periods **Visual:**	**REACTIVE ELEMENT** **Definition:** **Example:** **Visual:**	**NON-REACTIVE ELEMENT** **Definition:** **Example:** **Visual:**
METAL (COLOR) **Definition:** **Example:** **Visual:**	**NONMETAL (COLOR)** **Definition:** **Example:** **Visual:**	**METALLOID (COLOR)** **Definition:** **Example:** **Visual:**

GROUPS VS. PERIODS	REACTIVE ELEMENT	NON-REACTIVE ELEMENT
Definitions: Groups (families/columns) Periods (rows) Arranged according to: Groups Periods Visual:	Definition: Example: Visual:	Definition: Example: Visual:
METAL (COLOR)	NONMETAL (COLOR)	METALLOID (COLOR)
Definition: Example: Visual:	Definition: Example: Visual:	Definition: Example: Visual:

GROUPS VS. PERIODS

Definitions:

Groups (18 families/columns)

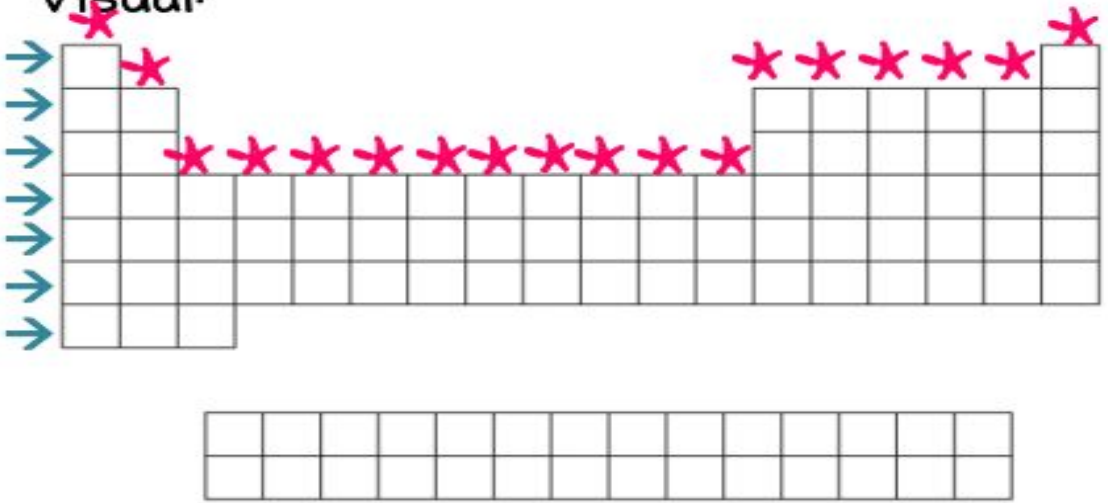
Periods (7 rows)

Arranged according to:

Groups: Elements with similar properties

Periods Increasing atomic number

Visual:



GROUPS VS. PERIODS	REACTIVE ELEMENT	NON-REACTIVE ELEMENT
Definitions: Groups (families/columns) Periods (rows) Arranged according to: Groups: Periods Visual:	Definition: Example: Visual:	Definition: Example: Visual:
METAL (COLOR)	**NONMETAL (COLOR)**	**METALLOID (COLOR)**
Definition: Example: Visual:	Definition: Example: Visual:	Definition: Example: Visual:

REACTIVE ELEMENT

Definition:

Element that easily, or readily responds (joining, repelling, forming a new substance) to other elements.

Example:

K and Na are stored separately because they're highly reactive, especially with O_2. Also, Na + Cl react to form NaCl.

Visual:

2NaCl

GROUPS VS. PERIODS	REACTIVE ELEMENT	NON-REACTIVE ELEMENT
Definitions: Groups (families/columns) Periods (rows) Arranged according to: Groups: Periods Visual:	Definition: Example: Visual:	Definition: Example: Visual:
METAL (COLOR)	**NONMETAL (COLOR)**	**METALLOID (COLOR)**
Definition: Example: Visual:	Definition: Example: Visual:	Definition: Example: Visual:

NON-REACTIVE ELEMENT

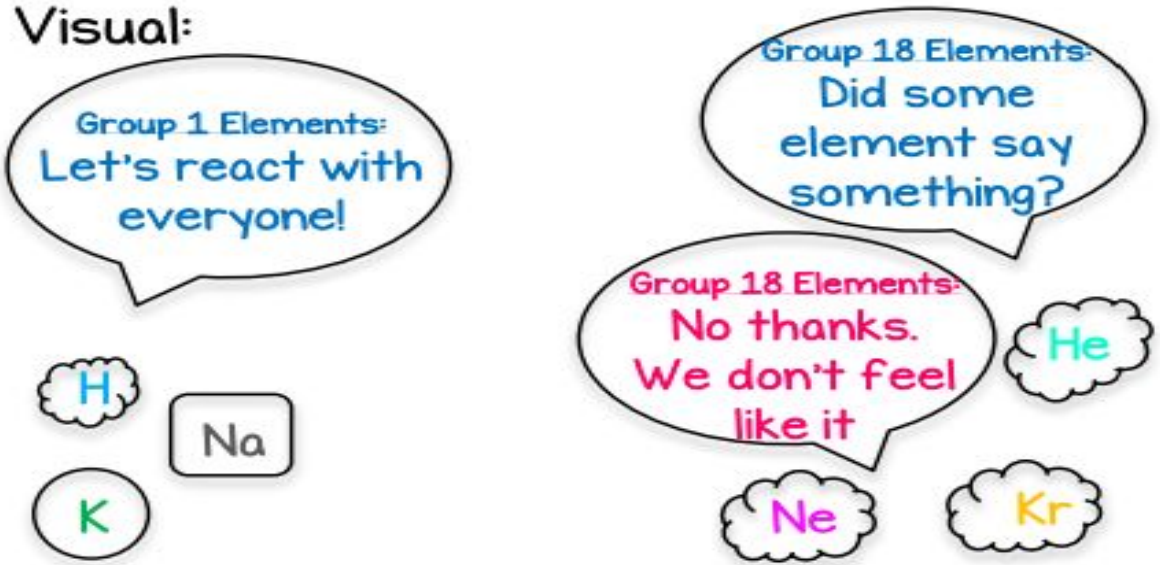
Definition:

Element that does not respond noticeably to the presence of other elements.

Example:

Elements in Group 18 (Noble Gas Family)

Visual:



GROUPS VS. PERIODS	REACTIVE ELEMENT	NON-REACTIVE ELEMENT
Definitions: Groups (families/columns) Periods (rows) Arranged according to: Groups: Periods Visual:	Definition: Example: Visual:	Definition: Example: Visual:
METAL (COLOR) Definition: Example: Visual:	**NONMETAL (COLOR)** Definition: Example: Visual:	**METALLOID (COLOR)** Definition: Example: Visual:

METAL (COLOR blue)

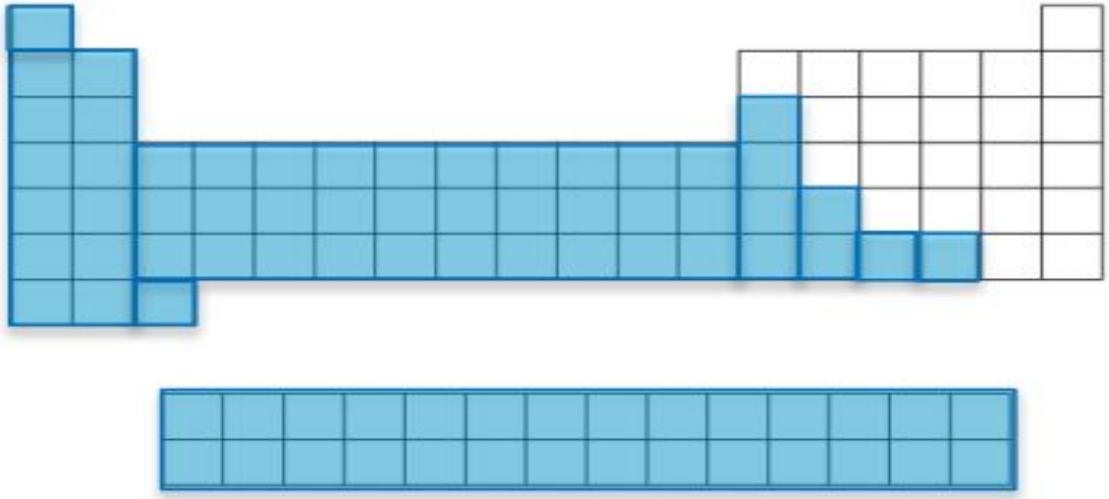
Definition:

Elements that easily conduct heat and electricity. The majority of the periodic table is made of metals. Mostly found in a solid phase.

Example:

Ni (nickel), Ti (titanium), Cu (copper), etc.

Visual:



GROUPS VS. PERIODS	REACTIVE ELEMENT	NON-REACTIVE ELEMENT
Definitions: Groups (families/columns) Periods (rows) Arranged according to: Groups Periods Visual:	Definition: Example: Visual:	Definition: Example: Visual:
METAL (COLOR) Definition: Example: Visual:	**NONMETAL (COLOR)** Definition: Example: Visual:	**METALLOID (COLOR)** Definition: Example: Visual:

NONMETAL (COLOR yellow)

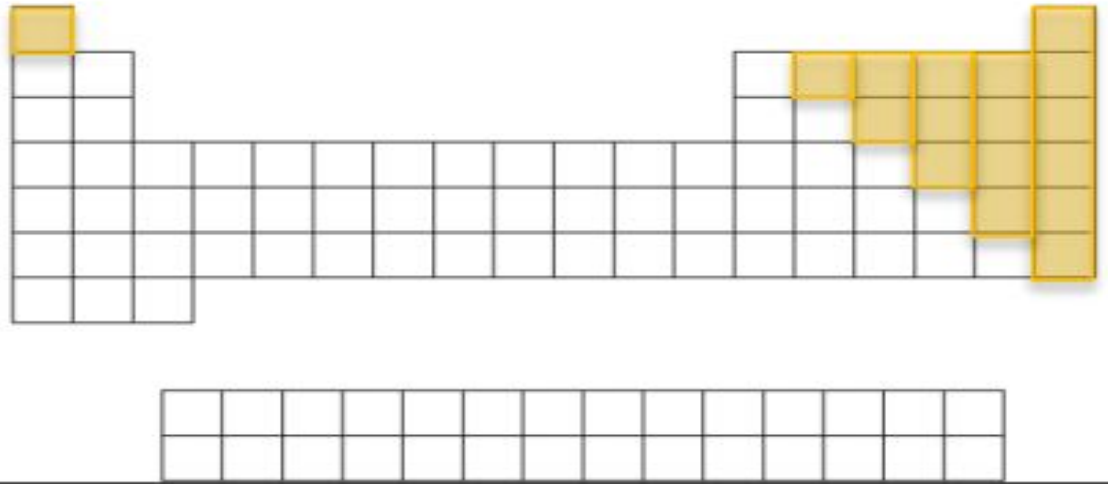
Definition:

Elements that lack metallic properties and are poor conductors of heat and electricity. Mostly on the right side of the PTE and found in a gas phase.

Example:

F (fluorine), O (oxygen), Cl (chlorine), etc.

Visual:



GROUPS VS. PERIODS	REACTIVE ELEMENT	NON-REACTIVE ELEMENT
Definitions: Groups (families/columns) Periods (rows) Arranged according to: Groups: Periods Visual:	Definition: Example: Visual:	Definition: Example: Visual:
METAL (COLOR) Definition: Example: Visual:	**NONMETAL (COLOR)** Definition: Example: Visual:	**METALLOID (COLOR)** Definition: Example: Visual:

METALLOID (COLOR purple)

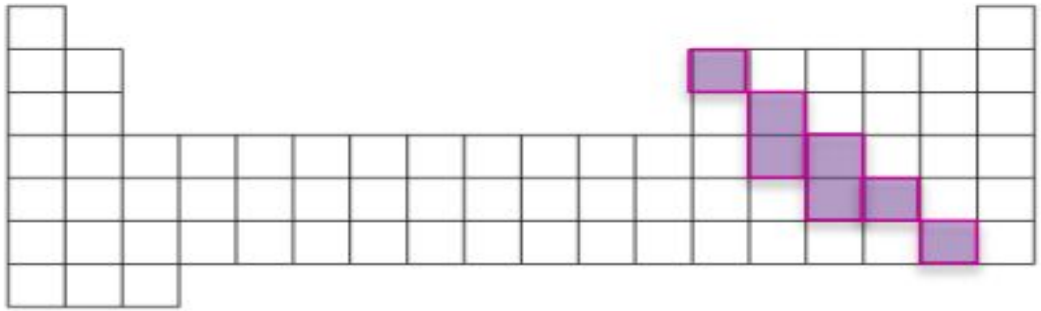
Definition:

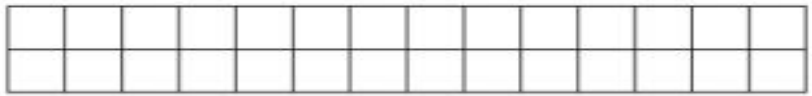
Elements look like metals but that lack true metallic properties and are poor conductors of heat and electricity. Found in the "stairs/steps" on the PTE.

Example:

As (arsenic), B (boron), Si (silicon) etc.

Visual:





GROUPS VS. PERIODS

Definitions:

Groups (18 families/columns)

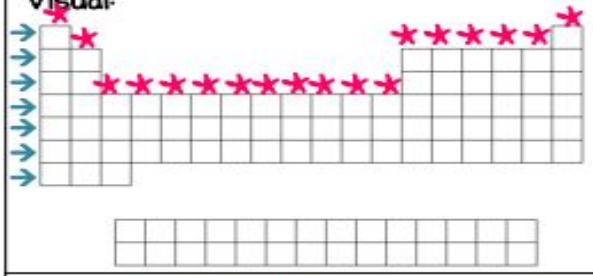
Periods (7 rows)

Arranged according to:

Groups: Elements with similar properties

Periods Increasing atomic number

Visual:



REACTIVE ELEMENT

Definition:

Element that easily, or readily responds (joining, repelling, forming a new substance) to other elements.

Example:

K and Na are stored separately because they're highly reactive, especially with O_2 Also, Na + Cl react to form NaCl

Visual:

$2NaCl$

NON-REACTIVE ELEMENT

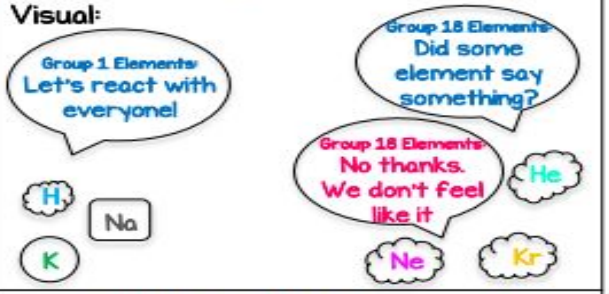
Definition:

Element that does not respond noticeably to the presence of other elements.

Example:

Elements in Group 18 (Noble Gas Family)

Visual:



METAL (COLOR blue)

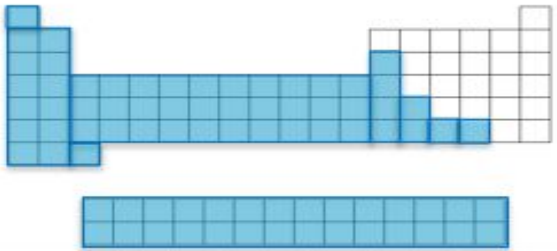
Definition:

Elements that easily conduct heat and electricity. The majority of the periodic table is made of metals. Mostly found in a solid phase.

Example:

Ni (nickel), Ti (titanium), Cu (copper), etc.

Visual:



NONMETAL (COLOR yellow)

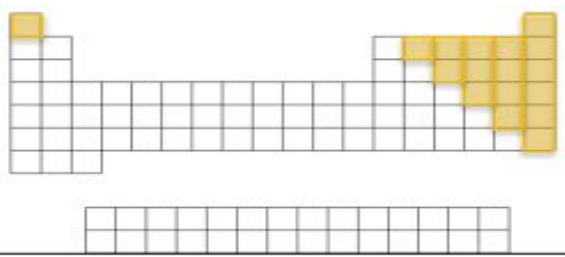
Definition:

Elements that lack metallic properties and are poor conductors of heat and electricity. Mostly on the right side of the PTE and found in a gas phase.

Example:

F (fluorine), O (oxygen), Cl (chlorine), etc.

Visual:



METALLOID (COLOR purple)

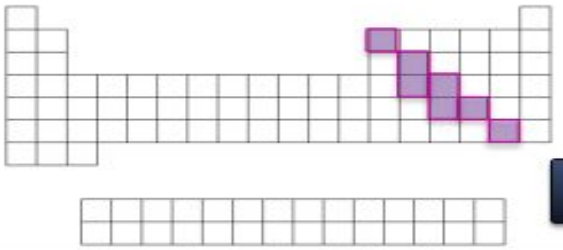
Definition:

Elements look like metals but that lack true metallic properties and are poor conductors of heat and electricity. Found in the "stairs/steps" on the PTE.

Example:

As (arsenic), B (boron), Si (silicon) etc.

Visual:



How is the Periodic Table of Elements Organized?