

One of the most important classification systems in science is the Periodic Table of Elements.

**Project Goal**

 For this project, you will create a “Periodic Table” which demonstrates how objects we use every day, topics we discuss, foods we eat, and more, contain characteristics which allow us to group them using different patterns. Upon completion of your “Periodic Table” you will analyze trends in your system and compare your system of organization to the Periodic Table of Elements.

**Time Allotment:**

Since this can be a difficult undertaking, you will be given 2 weeks to complete this project **at home**.

**Criteria:**

 **Your table should**:

\*be constructed on poster/display board *(or you can create a computer based/interactive periodic table)*

 \* have a title “Periodic Table of \_\_\_\_\_\_\_\_\_\_\_\_\_\_”

 \* have name and class period on the back

\*consist of 20 “elements”

\*have 5 groups or families (columns)

\*have 4 periods (rows)

\*have a title for each family and period

\*have a logical arrangement within groups & periods

\*have a key showing the arrangement

\*be neatly put together and be creative

\*be free of spelling or grammatical errors

\*have project questions answered in complete sentences on separate sheet

 **Each “element” on your periodic table must include:**

 \* Element Name

 \*Chemical Symbol (1 or 2 letters)

 \*Atomic Number – arrange elements first then number in order \*Atomic Mass – some numeric characteristic of the element that **must increase as you go down and across the table (size, style, cost, etc.)**

 \*Your choice – picture, state of matter, price, etc.

**Periodic Table Project Questions**

The following are questions that must be answered. The answers must be typed and you should attach one copy to the back of your periodic table.

1. Describe the basis of your arrangement. (What unique characteristic(s) allows your objects to be arranged in their particular manner?)

2. What are the important features of your table?

3. How is your arrangement of objects similar to the Periodic Table of Elements? Explain. For example, you **could** discuss:

a. Do you have names for the rows or columns?

b. Are your objects arranged by mass/shape/color?

c. Do the objects in your rows or columns have special or similar properties?

4. Mendeleev created a periodic table of elements and predicted characteristics of missing elements. Make a prediction about an object on your table that has not yet been discovered (the object will follow the last known one on your table). You should provide an actual example of the object and you should provide detailed reasoning for why this particular object will fit onto your periodic table according to your arrangement.

**Project Rubric**

**Basics, Poster is…** + \_\_\_\_\_\_ /10

 Titled (4 pts)

 Neat (3 pts)

 Colorful (2 pts)

 Correct Size (1 pt)

**Organization** + \_\_\_\_\_\_ /10

 Groups - vertical (4 pts organization) (1 pt title)

 Periods - horizontal (4 pts organization)(1 pt title)

**20 Elements** + \_\_\_\_\_\_ /20

 all 20 elements are present

**Square Information** + \_\_\_\_\_\_ /20

 Element Name (3 pts)

* Element Symbol (3 pts)

 Atomic Number (2 pts)

 Atomic Mass (8 pts)

 Choice (4 pts)

**Key is Present with** + \_\_\_\_\_\_ /15

 Atomic Number w/explanation (3pts)

 Atomic Mass w/explanation (3 pts)

 Choice w/explanation (3 pts)

**Questions Answered** +\_\_\_\_\_\_\_/25

 Questions 1-3 answered completely (15 points, 5 points per question)

 Questions 4 answered completely (5 points)

* Answers are typed and one copy is attached to back of poster
*

  **Total +\_\_\_\_\_\_ / 100**