

## Design your own Periodic Table

### Project Goal

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.

### Project Guidelines

Where to begin:

1. Choose a topic that has characteristics that can be categorized in at least two different ways. Good characteristics to look at may be, but are not limited to: dates, colors, cost, company, size, genre, or any physical or chemical properties that can divide the subject into various groups and periods. Be creative!!
2. Decide upon and research these particular characteristics (if needed). Organized the item vertically and horizontally to show a pattern or relationship. **Your periodic table must contain a minimum of 20 elements, arranged in a minimum of 5 groups and 4 periods (or the reverse).** Not every space within a group or period needs to be filled. **You must have a title for your groups and periods.**
3. Each “element” on your periodic table must include:
  - Element Name
  - Chemical Symbol (1 or 2 letters)
  - Atomic Number – arrange the elements first then number them, **blank spaces must include a number!**
  - 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.
4. **A “Key” is required** for the information given for each “element” on the periodic table by drawing a sample square with sample information, and then **label what characteristic each piece of information represents.**
5. The final copy of your periodic table must be in color and on unlined paper. The size of your periodic table will be 22” x 14” (half sheet of poster board).
6. **Title your periodic table at the top** of your poster. Your names and block can be written on the front or back.

### **Hints for Planning:**

- Remember that a chemical symbol can be 1 or 2 letters, but only the first letter is capitalized.
- Remember that atomic mass can be in decimal or whole number form.
- You cannot use the same characteristic for 2 different pieces of information. For example, 1994 can only be used for atomic mass or atomic number, not both.

### **Suggestions:**

- Sketch out each square and manipulate the pieces to help discover patterns
- Old catalogs and magazines are helpful for getting topic ideas or information and can be cut out to use as a part of the table.
- Some topics ideas include: candy, TV shows, movies, mall stores, music, sports teams, animals, clothes, countries, states, food, etc.

### **Project Rubric**

#### **Basics**

+ \_\_\_\_\_ /10

Poster is:

- Titled (4pts)
- Neat (4pts)
- Colorful (2pts)

#### **Organization**

+ \_\_\_\_\_ /10

- Groups – vertical (4pts organization)  
(1pt title)
- Periods – horizontal (4pts organization)  
(1pt title)

#### **20 Elements**

+ \_\_\_\_\_ /20

- 1pt credit for extra elements (up to 5)

#### **Square Information**

+ \_\_\_\_\_ /20

- Atomic Number (3pts)
- Atomic Symbol (3pts)
- Element name (3pts)
- Atomic Mass (8pts)
- Choice (3pts)

+ \_\_\_\_\_ /15

#### **Key**

- Atomic Number w/explanation (3pts)
- Element/Chemical Symbol w/explanation (3pts)
- Element/Chemical Name w/explanation (3pts)
- Atomic Mass w/explanation (3pts)
- Choice w/explanation (3pts)

**Total + \_\_\_\_\_ /75**