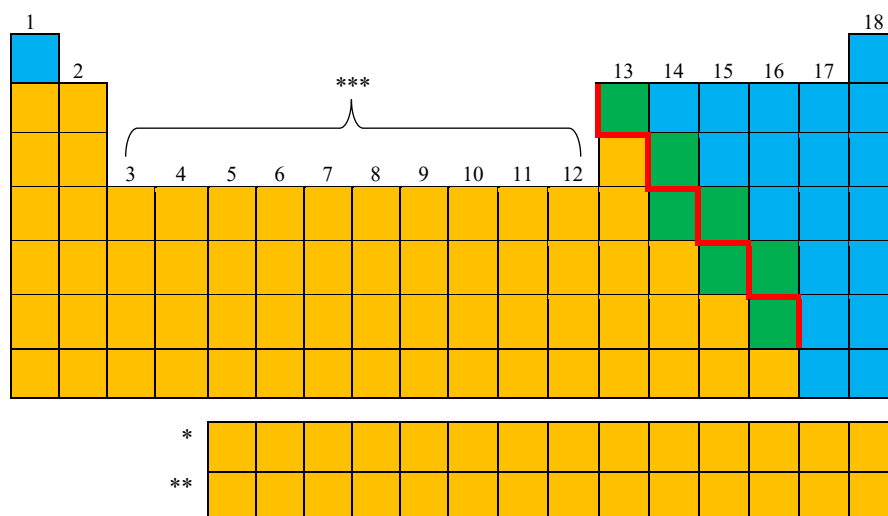


WKS 1-3: Introduction to the Periodic Table (use your textbook and/or the internet to help you)

12. List some **common properties** for the following types of elements:

METALS	NONMETALS	METALLOIDS/SEMIMETALS
<ul style="list-style-type: none"> • Malleable • Ductile • Shiny • Electrically conductive • Conducts heat 	<ul style="list-style-type: none"> • Dull • Brittle • Electrically insulating • Thermally Insulating 	<ul style="list-style-type: none"> • Shiny • Brittle • Slightly conductive

13. Draw in the staircase. Using 3 different colors, lightly shade in the general area where the metals, nonmetals, and metalloids are on the blank PT below. (Hint: be careful with Hydrogen!)



14. Indicate the family or block name for the following elements:

- | | |
|--|--|
| a) Group 1 (except H): Alkali Metals | b) Group 2: Alkaline Earth Metals |
| c) Group 17: Halogens | d) Group 18: Noble Gases |
| e) *: Lanthanoids | f) **: Actinoids |
| g) *** (the whole section): Transition Metals | |

15. Pick any element on the periodic table that intrigues you and want to learn more about.

My Element's Name palladium **Symbol** Pd

a) Research online for 5 min. What are three interesting facts that you learned about?

-Used in catalytic converters

-Does not react with O₂ in the air so does not tarnish (like silver does)

-Can be alloyed with gold to make white gold

b) My element is classified as a (metal, nonmetal, metalloid) (circle one)

c) My element belongs to the transition metal (platinum group) family.

- d) The normal state of matter of my element at room temperature is (solid, liquid, gas).
A periodic table that has colored symbols distinguishes between the states of matter, typically, black, red, and blue. What state of matter does each color represent at room temp?

Red gas Black solid Blue liquid

Bonus: What does an outlined elemental symbol mean? An artificial element

- e) Melting point of my element 1554.9 °C 1827.9 K

- f) Boiling point of my element 2963 °C 5365.4 °F
(Hint: to change the temp from °C to Kelvin add 273. To convert to °F multiply by 9/5 and add 32.)

Show your calculation below.

$$1554.9 \text{ }^{\circ}\text{C} + 273 = 1827.9 \text{ K}$$

$$2963 \text{ }^{\circ}\text{C} \times \frac{9}{5} + 32 = 5365.4 \text{ }^{\circ}\text{F}$$