

Are the Periodic Table Trends Observable?

Name: _____

Pre-Activity

1. Define the following terms, and list the properties associated with high metallic and non-metallic character:

Term	Definition	Associated Properties
Trend		
Metallic Character		
Non-Metallic Character		

Activity

2a. Using the physical element set, identify an element with high metallic character, and high non-metallic character. Justify your response referring to the properties of the elements.

	Element	Justification
Metal		
Non-Metal		

3. Using the physical element set describe the metallic and non-metallic character trends in:

The following periods:

Period	Elements	Description of Trends
2	B, C, N	
3	Al, Si, S	
4	Ti, V, Mn, Fe, Co, Ni, Cu, Zn, Ga, Se	

The following Groups:

Group	Elements	Description of Trends
13	B, Al, Ga, In	

Post-Activity

Accuracy: The extent to which an experimental result obtained from an investigation agrees with the accepted, or 'true', value of the particular quantity being measured.

1a. Do you think the trends observed are an accurate measure of metallic and non-metallic character? Why/why not?

1b. Describe a more accurate way to measure metallic character or non-metallic character.

4. In Year 7 & 8 you learnt about metals, non-metal and metalloids (properties of metals and non-metals). Using your understanding of metal and non-metal character trends, explain the shapes of the metal, metalloid and non-metal sections.

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