

## **Trend in physical properties**

**NAME:** \_\_\_\_\_

Based on the observation of the straw histograms you and your classmates prepared, state/describe and, where required, give a short explanation for the general trend across and down the periodic table in the following physical properties.

### **1. Ionization energy**

Across: \_\_\_\_\_

Explanation: \_\_\_\_\_

Down: \_\_\_\_\_

Explanation: \_\_\_\_\_

[HL only] State and explain the anomalous ionization energies across a period. State what they indicate about stabilities of subshells and electronic configurations of those elements.

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### **2. Electron affinity**

Across: \_\_\_\_\_

Explanation: \_\_\_\_\_

Down: \_\_\_\_\_

Explanation: \_\_\_\_\_

### **3. Atomic radius**

Across: \_\_\_\_\_

Explanation: \_\_\_\_\_

Down: \_\_\_\_\_

Explanation: \_\_\_\_\_

#### 4. Ionic radius

Across: \_\_\_\_\_

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Explanation: \_\_\_\_\_

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Down: \_\_\_\_\_

Explanation: \_\_\_\_\_

#### 5. Melting point

Across: \_\_\_\_\_

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Down: \_\_\_\_\_

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#### 6. Electronegativity

Across: \_\_\_\_\_

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Explanation: \_\_\_\_\_

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Down: \_\_\_\_\_

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Explanation: \_\_\_\_\_

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Why are no electronegativity values for noble gases listed?