

### Unit 3 - Grammar Review

I. Circle the answers that best describe the required articles. The symbol  $\theta$  indicates that no article is necessary. When the specific article [the] is required, indicate why it is required [the<sup>#1</sup> modifies nouns that are the only ones, the<sup>#2</sup> modifies nouns that are 2<sup>nd</sup> mention, and the<sup>#3</sup> modifies nouns that are explained].

1. The North Pole is \_\_\_\_ most northerly place on the earth.  
a) a      b) an      c)  $\theta$       **d) the<sup>#1</sup>**      e) the<sup>#2</sup>      f) the<sup>#3</sup>
2. Faraday was \_\_\_\_ scientist who studied electricity and magnetism.  
**a) a**      b) an      c)  $\theta$       d) the<sup>#1</sup>      e) the<sup>#2</sup>      f) the<sup>#3</sup>
3. If a magnet is passed through a coiled wire, an electric current will flow through \_\_\_\_ wire.  
a) a      b) an      c)  $\theta$       d) the<sup>#1</sup>      **e) the<sup>#2</sup>**      f) the<sup>#3</sup>
4. Some clouds produce lightning during \_\_\_\_ storms.  
a) a      b) an      **c)  $\theta$**       d) the<sup>#1</sup>      e) the<sup>#2</sup>      f) the<sup>#3</sup>
5. The magnetic north pole is not located at \_\_\_\_ North Pole.  
a) a      b) an      c)  $\theta$       **d) the<sup>#1</sup>**      e) the<sup>#2</sup>      f) the<sup>#3</sup>
6. The North and South Poles are located at \_\_\_\_ ends of the earth's axis.  
a) a      b) an      c)  $\theta$       d) the<sup>#1</sup>      e) the<sup>#2</sup>      **f) the<sup>#3</sup>**
7. A piece of iron can be used to make \_\_\_\_ excellent magnet.  
a) a      **b) an**      c)  $\theta$       d) the<sup>#1</sup>      e) the<sup>#2</sup>      f) the<sup>#3</sup>

J. For each of the following sentences, circle the letter that best describes the type of comma(s) used.

1. At about 5600° C, tungsten begins to boil.  
**a) introductory**      b) compound sentence      c) series      d) reversible adjective
2. Its atomic number is 74, and its atomic weight is 183.84.  
a) introductory      **b) compound sentence**      c) series      d) reversible adjective
3. Before tungsten can be alloyed with other elements, it must be extracted from its ore.  
**a) introductory**      b) compound sentence      c) series      d) reversible adjective
4. Tungsten carbide is an extremely hard, heat resistant substance.  
a) introductory      b) compound sentence      c) series      **d) reversible adjective**
5. Tungsten is a component of tungsten carbide, calcium tungsten phosphor, and tungsten steel.  
a) introductory      b) compound sentence      **c) series**      d) reversible adjective
6. Steel that contains tungsten is extremely hard and heat resistant, so tungsten steel tools are very durable.  
a) introductory      **b) compound sentence**      c) series      d) reversible adjective
7. In addition, tungsten is used to make filaments for electric lights.  
**a) introductory**      b) compound sentence      c) series      d) reversible adjective

توقعاتنا تمثل نبوءات  
مستقبلنا.

K. Circle the finite verbs [active or passive / singular or plural] that correctly complete the following sentences.

1. Tungsten \_\_\_\_\_ to make heating filaments.  
a) uses  
b) use  
**c) is used**  
d) are used
2. Fluorescent lamps \_\_\_\_\_ tungsten.  
a) contains  
**b) contain**  
c) is contained  
d) are contained
3. Tungsten \_\_\_\_\_ by the chemical symbol W.  
a) represents  
b) represent  
**c) is represented**  
d) are represented
4. Sodium hydroxide \_\_\_\_\_ the tungsten in ore.  
**a) dissolves**  
b) dissolve  
c) is dissolved  
d) are dissolved
5. Phosphors \_\_\_\_\_ in fluorescent lamps.  
a) finds  
b) find  
c) is found  
**d) are found**
6. During the extraction process, engineers \_\_\_\_\_ tungstic trioxide with hydrogen.  
a) heats  
**b) heat**  
c) is heated  
d) are heated
7. Tungsten carbide \_\_\_\_\_ of tungsten and carbon.  
a) composes  
b) compose  
**c) is composed**  
d) are composed
8. Tungsten is found in wolframite, and sometimes tungsten \_\_\_\_\_ wolfram.  
a) calls  
b) call  
**c) is called**  
d) are called
9. China \_\_\_\_\_ most of the world's tungsten.  
**a) produces**  
b) produce  
c) is produced  
d) are produced

العجيب أن أجمل ما يحدث لنا  
لا نعثر عليه، بل نتعثر به.



L. Circle the **finite verbs** or **verbals** that correctly complete the following sentences.

1. Tungsten \_\_\_\_\_ many uses.  
a) **has**  
b) have  
c) having  
d) to have
2. Tungsten \_\_\_\_\_ by two Spanish chemists in 1783.  
a) discovered  
b) is discovered  
c) are discovered  
d) **was discovered**
3. If \_\_\_\_\_ to 3400° C, tungsten will melt.  
a) **heated**  
b) heating  
c) to heat  
d) is heated
4. Fausto de Elhuyar was a chemist who \_\_\_\_\_ in Spain in the eighteenth century.  
a) to live  
b) living  
c) **lived**  
d) lives
5. Tungsten \_\_\_\_\_ with carbon to form tungsten carbide.  
a) **combines**  
b) combined  
c) combining  
d) to combine
6. \_\_\_\_\_ acid to a solution of sodium tungstate will cause tungstic trioxide to form.  
a) Adds  
b) Added  
c) **Adding**  
d) Is added
7. \_\_\_\_\_ tools must be made of hard, heat resistant substances.  
a) Cuts  
b) Is cut  
c) Are cut  
d) **Cutting**
8. Many uses for tungsten \_\_\_\_\_ in the electronics industry.  
a) found  
b) finding  
c) can find  
d) **can be found**
9. Tungsten is used \_\_\_\_\_ extremely hard, heat resistant steel.  
a) makes  
b) making  
c) **to make**  
d) can make

الغضب هو ذلك السم الذي يتلعه المرء آملاً أن يموت غيره.

M. For each of the following sentences, circle the **subject** (s) [not including any modifiers] and underline the **main verb** (s). Remember that the subjects and main verbs of sentences are found only in independent clauses.

1. (Magnetism) named for the ancient Greek town of Magnesia, is a force of nature that manifests itself differently in different materials.
2. The (comb) attracts the paper because opposite charges attract.
3. As electrons are rubbed off, a (cloud) may become positively charged or negatively charged.
4. The opposite (charges) attract each other, and an enormous (spark) of electricity jumps from one cloud to another or from a cloud to the ground.
5. Although every substance is magnetic to some degree, magnetic (effects) are much more powerful with iron and steel than with materials such as wood, rubber, copper, and glass.
6. If you have ever played with two magnets, (you) know the powerful force with which certain ends are drawn toward each other and other ends push away from each other across space.
7. The (ability) of magnetic iron ores, or lodestones, to attract iron and other substances was known to the ancient Greeks.
8. Although the earth has an iron core, that (core) cannot be a magnet because at great heats (over 1000° C at the center of the earth) iron loses its magnetism.
9. From time to time, the earth's magnetic (field) actually reverses itself as the magnetic South Pole becomes the magnetic North Pole and vice versa.
10. The north (pole) of the paperclip is then attracted to the south pole of the magnet, and the south (pole) of the paperclip is attracted to the north pole of the magnet.
11. When viewed under an electron microscope, a (piece) of iron can be seen to be made up of many tiny magnetic areas called domains.
12. A magnetic (field) moving near the wire pulls these free electrons along the wire, creating an electric current.

الهم أحد أنواع التعذيب الذاتي للنفس،  
بعض الناس يتقنون هذا الفن!

N. Underline the dependent clauses in the following sentences. For each clause, circle the clause word, and then indicate whether the clause is a relative [adjective] clause or an adverb clause.

- Tungsten begins to melt when it reaches a temperature of 3400° C, and it boils at about 5600° C.  
a) relative [adjective] clause      **b) adverb clause**
- Fausto de Elhuyar was one of the chemists who discovered tungsten.  
**a) relative [adjective] clause**      b) adverb clause
- Scheelite and wolframite are minerals from which tungsten is extracted.  
**a) relative [adjective] clause**      b) adverb clause
- Because tungsten has the highest melting point of all metals, it is used to increase heat tolerance in alloys.  
a) relative [adjective] clause      **b) adverb clause**
- Phosphors are compounds that give off light.  
**a) relative [adjective] clause**      b) adverb clause
- A good conductor is used so that the electric current flows readily.  
a) relative [adjective] clause      **b) adverb clause**

O. Circle the answer that best describes each of the following group of words.

- Like charges repel each other, unlike charges attract each other.  
a) simple   b) compound   c) complex   d) compound-complex   e) fragment   f) run-on   **g) comma splice**
- While like charges repel each other, unlike charges attract each other.  
a) simple   b) compound   **c) complex**   d) compound-complex   e) fragment   f) run-on   g) comma splice
- Amber is the substance that the Greeks called *electron*, and it gains electrons when it is rubbed with wool.  
a) simple   b) compound   c) complex   **d) compound-complex**   e) fragment   f) run-on   g) comma splice
- In the experiment with the plastic comb, some of the electrons from the wool cloth.  
a) simple   b) compound   c) complex   d) compound-complex   **e) fragment**   f) run-on   g) comma splice
- In the experiment with the plastic comb, some electrons are rubbed off.  
**a) simple**   b) compound   c) complex   d) compound-complex   e) fragment   f) run-on   g) comma splice
- Some clouds lose electrons, and others gain electrons.  
a) simple   **b) compound**   c) complex   d) compound-complex   e) fragment   f) run-on   g) comma splice
- Magnetic poles never exist alone a north pole cannot be isolated from its south pole.  
a) simple   b) compound   c) complex   d) compound-complex   e) fragment   **f) run-on**   g) comma splice
- Negatively charged amber can pick up dust, small pieces of leaves, or other lightweight matter.  
**a) simple**   b) compound   c) complex   d) compound-complex   e) fragment   f) run-on   g) comma splice
- Matter becomes negatively charged when it gains electrons.  
a) simple   b) compound   **c) complex**   d) compound-complex   e) fragment   f) run-on   g) comma splice
- North poles attract south poles, south poles attract north poles.  
a) simple   b) compound   c) complex   d) compound-complex   e) fragment   f) run-on   **g) comma splice**

P. This exercise tests understanding of punctuation, sentences, fragments, run-ons, and comma splices.  
**Circle** the letters that correspond to the correctly punctuated sentences.

1. Which of the following group of words is a correctly punctuated sentence?
  - a) Temperature affects the size of an object heat causes most objects to expand.
  - b) Temperature affects the size of an object, heat causes most objects to expand.
  - c) Temperature affects the size of an object, and heat causes most objects to expand.**
  - d) none of the above
2. Which of the following group of words is a correctly punctuated sentence?
  - a) Bacteria cannot stand extremes of temperature, heat is used to kill them.
  - b) Because bacteria cannot stand extremes of temperature, heat is used to kill them.**
  - c) Because bacteria cannot stand extremes of temperature heat is used to kill them.
  - d) none of the above
3. Which of the following group of words is a correctly punctuated sentence?
  - a) Energy cannot be created or destroyed.
  - b) Energy cannot be created and cannot be destroyed.
  - c) Energy cannot be created, and it cannot be destroyed.
  - d) all of the above**
4. Which of the following group of words is a correctly punctuated sentence?
  - a) Chemical energy is potential energy it is stored in gasoline, food, and oil.
  - b) Chemical energy is potential energy, it is stored in gasoline, food, and oil.
  - c) Chemical energy is potential energy that is stored in gasoline, food, and oil.**
  - d) all of the above
5. Which of the following group of words is a correctly punctuated sentence?
  - a) Mechanical energy is energy related to the movement of objects.**
  - b) Mechanical energy is energy, it related to the movement of objects.
  - c) Mechanical energy is energy that related to the movement of objects.
  - d) none of the above
6. Which of the following group of words is a correctly punctuated sentence?
  - a) When a substance heated the molecules faster.
  - b) When a substance is heated the molecules faster.
  - c) When a substance is heated, the molecules move faster.**
  - d) none of the above
7. Which of the following group of words is a correctly punctuated sentence?
  - a) The chain reaction occurs very rapidly and releases a huge amount of energy.**
  - b) The chain reaction occurs very rapidly, releases a huge amount of energy.
  - c) The chain reaction occurs very rapidly, it releases a huge amount of energy.
  - d) all of the above
8. Which of the following group of words is a correctly punctuated sentence?
  - a) Mechanical energy is a form of kinetic energy chemical energy is a form of potential energy.
  - b) Mechanical energy is a form of kinetic energy, chemical energy is a form of potential energy.
  - c) Mechanical energy is a form of kinetic energy, and chemical energy is a form of potential energy.**
  - d) none of the above
9. Which of the following group of words is a correctly punctuated sentence?
  - a) A uranium atom gives up neutrons, it splits apart.
  - b) A uranium atom gives up neutrons when it splits apart.**
  - c) A uranium atom gives up neutrons, when splits apart.
  - d) all of the above

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