

Unit 2 Writing - Extended Definitions and Exemplifying

V. Study the following **extended definitions** and answer the questions provided. Notice that there may be **more than one correct extended definition for each term**. Examples may be included in **formal definitions** and formal classification definitions, but they must be **in addition to defining characteristics**; they cannot take the place of defining characteristics (see question 6.1).

(1)

1Petroleum is chiefly a mixture of many different hydrocarbons. 2It is obtained from underground deposits that were formed millions of years ago from the remains of living organisms. 3Petroleum is used to produce combustible fuels, petrochemicals, and lubricants.

1.1 In the extended definition of the term **petroleum** given above, the defining characteristic(s) in the first sentence is/are related to a.

- a) **composition** (*What does petroleum consist of?*)
- b) origin; source (*Where does petroleum come from?*)
- c) uses; functions (*What is petroleum used for?*)
- d) examples (*of petroleum or of its features*)
- e) classification (*Can petroleum be divided into groups?*)
- f) another/other name(s) for the term
- g) properties; characteristics; principles (*scientific information about petroleum*)

1.2 In the extended definition of **petroleum** given above, the information in the second sentence is related to b.

- a) composition (*What does petroleum consist of?*)
- b) **origin; source** (*Where does petroleum come from?*)
- c) uses; functions (*What is petroleum used for?*)
- d) examples (*of petroleum or of its features*)
- e) classification (*Can petroleum be divided into groups?*)
- f) another/other name(s) for the term
- g) properties; characteristics; principles (*scientific information about petroleum*)

1.3 In the extended definition of **petroleum** given above, the information in the third sentence is related to c.

- a) composition (*What does petroleum consist of?*)
- b) origin; source (*Where does petroleum come from?*)
- c) **uses; functions** (*What is petroleum used for?*)
- d) examples (*of petroleum or of its features*)
- e) classification (*Can petroleum be divided into groups?*)
- f) another/other name(s) for the term
- g) properties; characteristics; principles

إذا لم تضع أنت خطة لحياتك،
فستصبح جزءاً من خطط غيرك.

(2)

1Petroleum is a nonrenewable resource used to produce combustible fuels, petrochemicals, and lubricants. 2Gasoline, plastic, synthetic fabrics, detergents, and engine grease are all examples of petroleum products.* 3Petroleum may be classified as light grade, medium grade, or heavy grade.

* examples of uses

2.1 In the extended definition of the term **petroleum** given above, the defining characteristic(s) in the first sentence is/are related to c.

- a) composition
- b) origin; source
- c) uses; functions**
- d) examples
- e) classification
- f) another/other name(s) for the term
- g) properties; characteristics; principles

2.2 In the extended definition of **petroleum** given above, the information in the second sentence is related to d.

- a) composition
- b) origin; source
- c) uses; functions
- d) examples**
- e) classification
- f) another/other name(s) for the term
- g) properties; characteristics; principles

2.3 In the extended definition of **petroleum** given above, the information in the third sentence is related to e.

- a) composition
- b) origin; source
- c) uses; functions
- d) examples
- e) classification**
- f) another/other name(s) for the term
- g) properties; characteristics; principles

*Note: When examples are given, they may be examples of uses, examples of properties, examples of classification groups, etc. [*Iron is a metal widely used in engineering. For example, iron is used to construct buildings, pipes, and heavy machinery. These are examples of the engineering uses of iron. Vehicles may be classified as land, sea, or air transportation devices. Airplanes and helicopters are examples of air transport vehicles. These are classification examples.*]

أفضل إنجاز هو أن تكون الشخص الذي تريده
في عالم يحاول جعلك الشخص الذي لا تريده.



(3)

1Petroleum is a substance that is sometimes known as crude oil, black gold, or the lifeblood of the industrialized world. 2It may exist as a solid at room temperature. 3Examples of the solid forms of petroleum include tar and bitumen.*

* examples of properties or characteristics (solid form)

3.1 In the extended definition of the term **petroleum** given above, the defining characteristic(s) in the first sentence is/are related to f.

- a) composition
- b) origin; source
- c) uses; functions .
- d) examples
- e) classification
- f) another/other name(s) for the term**
- g) properties; characteristics; principles

3.2 In the extended definition of **petroleum** given above, the information in the second sentence is related to g.

- a) composition
- b) origin; source
- c) uses; functions
- d) examples
- e) classification
- f) another/other name(s) for the term
- g) properties; characteristics; principles**

3.3 In the extended definition of **petroleum** given above, the information in the third sentence is related to d.

- a) composition
- b) origin; source
- c) uses; functions
- d) examples**
- e) classification
- f) another/other name(s) for the term
- g) properties; characteristics; principles

أنت غير مطالب لتكون أفضل من أي شخص آخر، أنت مطالب بأن تكون أفضل شيء يمكنك أن تكونه.

(4)

1 Gold is the chemical element whose symbol is Au. 2It has an atomic number of 79 and an atomic weight of 196.967. 3Gold is deep yellow, dense, soft, and extremely ductile and malleable.

4.1 In the extended definition of the term **gold** given above, the defining characteristic(s) in the first sentence is/are related to f.

- a) composition
- b) origin; source
- c) uses; functions
- d) examples
- e) classification
- f) another/other name(s) for the term**
- g) properties; characteristics; principles

4.2 In the extended definition of **gold** given above, the information in the second sentence is related to g.

- a) composition
- b) origin; source
- c) uses; functions
- d) examples
- e) classification
- f) another/other name(s) for the term
- g) properties; characteristics; principles**

4.3 In the extended definition of **gold** given above, the information in the third sentence is related to g.

- a) composition
- b) origin; source
- c) uses; functions
- d) examples
- e) classification
- f) another/other name(s) for the term
- g) properties; characteristics; principles**

حان الوقت لكي نعيش
الحياة التي تخيلناها.



(5)

1 Gold is the metal traditionally used as money, commonly in the form of gold coins or bars.* 2 For example, gold bars are accepted by all countries as payment for debts.** 3 In nature, gold is found deposited near the surface of the earth or deep underground.

* examples of uses in the definition sentence (**after** the defining characteristics)

** one example of how gold is used as money

5.1 In the extended definition of the term **gold** given above, the defining characteristic(s) in the first sentence is/are related to c.

- a) composition
- b) origin; source
- c) uses; functions**
- d) examples
- e) classification
- f) another/other name(s) for the term
- g) properties; characteristics; principles

5.2 In the extended definition of **gold** given above, the information in the second sentence is related to d.

- a) composition
- b) origin; source
- c) uses; functions
- d) examples**
- e) classification
- f) another/other name(s) for the term
- g) properties; characteristics; principles

5.3 In the extended definition of **gold** given above, the information in the third sentence is related to b.

- a) composition
- b) origin; source**
- c) uses; functions
- d) examples
- e) classification
- f) another/other name(s) for the term
- g) properties; characteristics; principles

ربما لم يعلق الآخرون آمالاً عريضة علي،
ولكن ما زلت أعلق آمالاً عريضة علي نفسي.

(6)

1Compounds are substances that contain more than one type of atom, such as water (H₂O) and sodium chloride (NaCl).* 2Some compounds contain carbon and are called organic compounds, and others do not contain carbon and are known as inorganic compounds. 3Water and sodium chloride are examples of inorganic compounds because they do not contain carbon.**

* examples of the term in the definition sentence (**after** the defining characteristics)

** examples of inorganic compounds (classification examples)

6.1 In the extended definition of the term **compounds** given above, the defining characteristic(s) in the first sentence is/are related to a.

- a) **composition**
- b) origin; source
- c) uses; functions
- d) examples
- e) classification
- f) another/other name(s) for the term
- g) properties; characteristics; principles

6.2 In the extended definition of **compounds** given above, the information in the second sentence is related to e.

- a) composition
- b) origin; source
- c) uses; functions
- d) examples
- e) **classification**
- f) another/other name(s) for the term
- g) properties; characteristics; principles

6.3 In the extended definition of **compounds** given above, the information in the third sentence is related to d.

- a) composition
- b) origin; source
- c) uses; functions
- d) **examples**
- e) classification
- f) another/other name(s) for the term
- g) properties; characteristics; principles

قدراتنا مثل دراجة تتمتع بعشر سرعات،
لكن أغلبنا يركن إلى السرعة الأقل.



(7)

1An element is a substance that contains just one type of atom. 2Elements are not compounds, but they combine in many different ways to form compounds.* 3Hydrogen and oxygen are the elements that combine to form the compound water.**

* **Negatives** may be used in extended definitions, but not in the first sentences (**not in formal definition sentences**).

** examples of the term (hydrogen and oxygen) and a property (combine to form ...)

7.1 In the extended definition of the term **element** given above, the defining characteristic(s) in the first sentence is/are related to a.

- a) **composition**
- b) origin; source
- c) uses; functions
- d) examples
- e) classification
- f) another/other name(s) for the term
- g) properties; characteristics; principles

7.2 In the extended definition of **element** given above, the information in the second sentence is related to g.

- a) composition
- b) origin; source
- c) uses; functions
- d) examples
- e) classification
- f) another/other name(s) for the term
- g) **properties; characteristics; principles**

7.3 In the extended definition of **element** given above, the information in the third sentence is related to d.

- a) composition
- b) origin; source
- c) uses; functions
- d) **examples**
- e) classification
- f) another/other name(s) for the term
- g) properties; characteristics; principles

قسم أي مهمة صعبة إلى مهام أصغر
أسهل فإن الجبال تتكون من الحصى.



W. Read each **incomplete** extended definition carefully and choose **the answer that best completes it** by selecting from the four options given. Look for key words that will help you to identify the subject of each paragraph before answering. Circle your choices and then write your answers on the blanks provided.

Note: In the example below (1) the key words are underlined.

- (1) Fuels are materials that provide useful energy. Fuels may be classified as natural fuels or as synthetic fuels. .
- Coal is an example of a natural fuel.**
 - Chemical fuels sometimes need special oxidizers in order to burn.
 - Nuclear fuels do not burn.
 - none of the above
- (2) Fuels are materials that provide useful energy. Most fuels release energy by burning with oxygen in the air, but some fuels need special oxidizers in order to burn. .
- Biomass can be used to produce synthetic fuel.
 - Fossil fuels account for about 90 percent of the energy people use today.
 - Nuclear fuels release energy through fission or fusion, not by burning.**
 - none of the above
- (3) Synthetic fuels are artificially produced fuels. Some synthetic fuels need special oxidizers in order to burn.
- Fossil fuels account for about 90 percent of the energy people use today.
 - Synthetic fuels can be made from fossil fuels, certain types of rock and sand, biomass, and chemicals.**
 - Nuclear fuels release energy through fission or fusion.
 - none of the above
- (4) Biomass is replaceable organic matter that can be used to produce fuel. The fuels produced from biomass are called synthetic fuels.
- Coal and petroleum are examples of fossil fuels.
 - Wood and garbage are examples of biomass.**
 - Nuclear fuels release energy through fission or fusion.
 - none of the above
- (5) Fossil fuels are fuels that were formed millions of years ago from the remains of plants and animals. Coal, petroleum, and natural gas are examples of fossil fuels. .
- Biomass can be used to produce synthetic fuel.
 - Fossil fuels account for about 90 percent of the energy people use today.**
 - Nuclear fuels do not burn.
 - none of the above
- (6) Energy is the ability to do work. Energy can be transferred from one form to another (for example, from potential to kinetic), but it cannot be created or destroyed.
- There is no gain or loss of matter in a chemical change.
 - Fission is the opposite of fusion.
 - The two main forms of energy are kinetic energy and potential energy.**
 - none of the above

لا يعدم الفاشل اختلاق ألف
عذر ليبرر بها فشله.

(7) ¹Kinetic energy is the energy of motion. ²There are many types of kinetic energy. ³_____.

- a) **Mechanical energy is an example of kinetic energy.**
- b) Chemical energy is an example of potential energy.
- c) There are many types of potential energy.
- d) none of the above

8) ¹_____ ²There are many types of potential energy. ³Water in a dam is an example of potential energy.

- a) Kinetic energy is the energy of motion.
- b) Thermal energy is the kinetic energy of molecules.
- c) An apple hanging on a tree is an example of potential energy.
- d) **none of the above**

Writing Extended Definitions

X. Use information from Reading 3 (The Effects of Temperature - page 56) and Reading 4 (How Heat Is Transferred - page 58) to complete the following extended definitions.

1) Use an example from Paragraph 3 in Reading 3 (p. 56) to complete the following extended definition.

¹Temperature is a measure of the kinetic energy of matter. ²Temperature affects the size of an object.
³For example, a glass may break when boiling water is poured into it because part of the glass heats up and expands more rapidly than the rest.

2) Use an example from Paragraph 5 in Reading 3 (p. 56) to complete the following extended definition.

¹Temperature is a measure of the kinetic energy of matter. ²Temperature affects the ability of metal to resist electricity.
³For example, heated wires cause excess electrical movements, which can damage machines.

3) Use information from Paragraph 2 in Reading 3 (p. 56) to complete the following extended definition.

¹Temperature is a measure of the kinetic energy of matter.
²Temperature alters the color of matter.
³For example, iron is a metal that changes color when it is heated.

أريد أن أكون كل ما يمكنني أن أكونه.

- 4) Use an example from Paragraph 3 in Reading 4 (p. 58) to complete the following extended definition.

1 Good conductors are materials that allow heat to transfer readily from one molecule to another.
2 Energy is conducted when fast-moving molecules cause slow-moving molecules to move faster.
3 **For example metals are good conductors.**

- 5) Use information from Paragraph 3 in Reading 4 (p. 58) to write a formal definition sentence for **insulators** in order to complete the following extended definition.

1 **Insulators are substances whose molecules make very little contact with which to pass on the heat energy.**
2 Wool, fiberglass, asbestos, and down that trap little pockets of air and are examples of good insulators.
3 A vacuum is an example of an ideal insulator because it has no molecules to transfer heat.

- 6) Use information from Paragraph 5 in Reading 4 (p. 58) to write a formal definition sentence for **radiation** in order to complete the following extended definition.

1 **Radiation is one method of heat transfer.**
2 Radiated heat can pass through a vacuum.
3 For example, radiated heat from the sun passes through the vacuum between the sun and the earth.

- 7) Use information from Paragraph 4 of Reading 4 (p. 58) to write an extended definition for **convection**. You must write **three sentences** and your first sentence must be a **formal definition sentence**.

Your first sentence should be indented about 3 cm from the left margin. Do **not** begin the second and third sentences on a **new line**, but instead continue writing directly after the previous sentence in correct **paragraph format**.

Convection is one method of heat transfer. It is the upward flow of masses of liquid or gas molecules as they are heated from below. The hot air rising above a radiator is an example of convection.

لنكن أنت أهم بند في
قائمة اهتماماتك.

Extended Definitions - Guided Writing Practice

Y. Use the information in the paragraphs given below to write **extended definitions** as instructed. Be sure to use correct paragraph format.

(1) All chemical substances are either elements or **compounds**. An element is a substance that contains only one kind of atom. A compound is a substance that contains more than one kind of atom. Every compound has a definite composition that can be described by a chemical formula. For example, water is a compound that contains two kinds of atoms, hydrogen and oxygen. Other familiar compounds include salt and sugar. These compounds and many others occur in nature, but some compounds are artificially created.

(1) Write an extended definition for **compounds** (plural). Your **first** sentence must be a **formal definition sentence**. Use **(an) example(s)** to write your **second** sentence. Use information related to **composition** for your **third** sentence.

Compounds are substances that contain more than one kind of atom. For example, water is a compound that contains two kinds of atoms, hydrogen and oxygen. Every compound has a definite composition that can be described by a chemical formula.

(2) Chemists prepare compounds in several ways. Some compounds are formed by combining elements. The properties of a compound differ from those of the elements from which it was made. For example, the elements sodium and chlorine combine to form the compound **sodium chloride**, or table salt. Sodium is a soft metal that reacts violently with water and other substances. Chlorine is a yellowish gas that is poisonous. In contrast, sodium chloride is a hard, unreactive, white, crystalline solid.

(2) Write an extended definition for **sodium chloride**. Your **first** sentence must be a **formal definition sentence** using information related to **composition** for the **defining characteristics**. Use information related to **another name(s)** to write your **second** sentence. Use information related to **properties** to write your **third** sentence.

Sodium chloride is a compound that contains sodium and chlorine. Sodium chloride is also known as table salt. Sodium chloride is a hard, unreactive, white, crystalline solid.

لك شيء في هذا العالم، فهيا
لتحصل عليه.

(3) The atoms in one element are different from those in any other element. Atoms combine in many ways to form millions of compounds. In some cases, atoms of the same elements combine in different proportions to produce a large number of compounds. For example, atoms of carbon and hydrogen can combine to form methane, which is the main component in natural gas. These same elements also form propane, which is used as a fuel for such devices as torches and camping stoves. These and thousands of other compounds that contain only carbon and hydrogen are known as **hydrocarbons**.

(3) Write an extended definition for **hydrocarbon** (singular). Your **first** sentence must be a **formal definition sentence**. Use (an) **example(s)** to write your **second** and **third** sentences.

A hydrocarbon is a compound that contains only carbon and hydrogen. For example, atoms of carbon and hydrogen can combine to form methane. Propane is another example of hydrocarbons.

(4) **Compounds** are substances that contain more than one kind of atom. Compounds can be divided into two groups. Organic compounds contain carbon atoms. Proteins, fats, carbohydrates, nucleic acids, and many other compounds found in living things are organic compounds. All other compounds are called inorganic compounds.

(4) Write an extended definition for **compound** (singular). Your **first** sentence must be a **formal definition sentence**. Use information related to **classification** to write your **second** sentence and include the names of the classes. Use (an) **example(s)** from one of the classes to write your **third** sentence.

A compound is a substance that contains more than one kind of atom. Compounds are divided into two groups, organic compounds and inorganic compounds. For example, proteins and fat are organic compounds.

(5) Many combinations that contain atoms from more than one element are **mixtures**, not compounds. A compound always has the same composition by weight. On the other hand, the composition of a mixture is not fixed and varies from sample to sample. For example, chocolate chip ice cream is a mixture. Its composition varies, and some samples contain more chocolate chip pieces than others.

(5) Write an extended definition for **mixture** (singular). Your **first** sentence must be a **formal definition sentence**. Use information related to **composition** to write your **second** sentence. Use (an) **example(s)** to write your **third** sentence.

A mixture is a combination that contains atoms from more than one element. The composition of a mixture is not fixed and varies from sample to sample. Chocolate chip ice cream is an example of mixtures.

هناك دائماً أماكن شاغرة على القمة.

Extended Definitions - Error Correction

Z 1. First, read each extended definition provided below and **underline the sentence that has (an) error(s)**. Then **circle** the answer that best **corrects the error(s)**.

1. Petroleum are natural resource that are composed chiefly of hydrocarbons. It is obtained from underground deposits. Petroleum is used to produce combustible fuels, petrochemicals, and lubricants.
a) Petroleum is a natural resource that is composed chiefly of hydrocarbons.
b) It obtained from underground deposits.
c) Petroleum are used to produce combustible fuels, petrochemicals, and lubricants.
d) none of the above

2. Gold is the chemical element that chemical symbol is Au. It is deep yellow and extremely ductile. Gold is used to make jewelry.
a) Gold is the chemical element whose chemical symbol is Au.
b) It be deep yellow and extremely ductile.
c) Jewelry is another example of its uses.
d) none of the above

3. Gold is the metallic element with the symbol Au. It has an atomic weight of 79. Gold is common used as money.
a) Gold is metallic element with the symbol Au.
b) It has atomic weight of 79.
c) Gold is commonly used as money.
d) none of the above

4. Petroleum is chiefly a mixture of many different hydrocarbons. Combustible fuels, petrochemicals, and lubricants make from petroleum. Gasoline and detergents are examples of petroleum products.
a) Petroleum are chiefly a mixture of many different hydrocarbons.
b) Combustible fuels, petrochemicals, and lubricants are made from petroleum.
c) Gasoline and detergents are an example of petroleum products.
d) none of the above

5. Gold is the element that has an atomic number of 79. Gold is deep yellow and extremely ductile. We use gold to make jewelry.
a) Gold is the element that have an atomic number of 79.
b) Gold deep yellow and extremely ductile.
c) Gold is used to make jewelry.
d) none of the above

يسهل علينا إدراك الفرص
عندما تفلت من بين أيدينا.

6. Aluminum is a metal that does not occur in nature in the metallic state. It is an example of a light metal. Aluminum is a commercially important metal.
- Aluminum is a metal that occurs in nature only in compounds.**
 - It is example of a light metal.
 - Aluminum is a commercially important.
 - none of the above
7. An element is a substance such as oxygen or hydrogen. Elements can combine to form compounds such as water. Elements may be classified as metals or as nonmetals.
- An element is a substance that contains just one type of atom, such as oxygen or hydrogen.**
 - An element combining to form compounds such as water.
 - An element be classified as metals or as nonmetals.
 - none of the above
8. Compounds are substances containing more than one type of atom. Sodium chloride is an example of a compound. Sodium chloride is also calls table salt.
- Compounds are substances that containing more than one type of atom.
 - Sodium chloride is an example of compound.
 - Sodium chloride is also called table salt.**
 - none of the above
9. Gold is deep yellow, soft and extremely ductile. It has an atomic weight of 196.967. Its chemical symbol is Au.
- Gold is a deep yellow, soft, and extremely ductile metal.**
 - It have an atomic weight of 196.967.
 - Its chemical symbol are Au.
 - none of the above
10. Petroleum is a substance that is sometimes known as crude oil. You can use petroleum to make a variety of products. Most combustible fuels are petroleum products.
- Petroleum is a substance is sometimes known as crude oil.
 - You can use petroleum makes a variety of products.
 - Most combustible fuels is petroleum products.
 - none of the above**
11. Gold is the metal traditionally used as money. For example, gold bars can be used to pay debts. In contrast, gold coins are another example of gold used as money.
- Gold is the metal that traditionally used as money.
 - For example, gold bars can be used pay debts.
 - Gold coins are another example of gold used as money.**
 - none of the above

لا أحد يخطط للفشل، يأتي
الفشل عندما لا نخطط.

Extended Definitions - Guided Writing Practice

In nature, most metals occur combined with other materials in rocks known as ores. The process of separating metals from the ores that contain them is called extraction. About 6,000 years ago, people first discovered that large quantities of metals can be extracted from ores using fire. This method of extraction is known as smelting. Other methods of extraction include leaching and amalgamation.

Z 2. Use information from the above paragraph to write an extended definition for **ore** (singular*). Your **first** sentence must be a formal definition sentence using information related to **composition** for the defining characteristics. For your **second** sentence, use information related to the **use of ores**. Use **(an) example(s)**** to write your **third** sentence. *Be sure to use correct paragraph format to write your answer.*

An ore is a rock that has a combination of metals and other materials. Large quantities of metals can be extracted from ores using fire. Leaching and amalgamation are methods of extraction.

*The **formal definition sentence** must be **singular**. Sentences 2 and 3 may be **singular or plural**.
 Examples may be **examples of the term, or **examples of uses**, or **examples of origin**, or **examples of composition**, etc.

الكثير ممن فشلوا لم يدركوا مدى قربهم من النجاح عندما استسلموا.

Extended Definitions - Guided Writing Practice

Resistance thermometers are electrical thermometers. They are made of copper, nickel, or platinum. A change in temperature makes the electrical resistance of these metals to vary. The variation is measured and indicated on a temperature scale. Platinum resistance thermometers are the most accurate thermometers. They are used to check the accuracy of all the other types of thermometers.

Z3. Use information from the above paragraph to write an extended definition for **resistance thermometer** (singular*). Your **first** sentence must be a **classification definition sentence**. For your **second** sentence, use information related to the **use** of resistance thermometers. Use **(an) example(s)** to write your **third** sentence. *Be sure to use correct paragraph format to write your answer.*

A resistance thermometer is an electrical thermometer that is made of copper, nickel or platinum. It is used to measure temperature changes and indicate them on a scale. A platinum resistance thermometer is an example of resistance thermometers.

* The **classification definition sentence** must be **singular**. Sentences **2** and **3** may be **singular** or **plural**.

النجاح ملك لمن يدفع الثمن.