

Many people think of chemists as being white-coated scientists, mixing strange liquids in laboratory, but the truth is, we are all chemists.

Lavoisier Antoine (1743-1794) known as the father of the Modern chemistry, quoted " I have tried, to arrive at the truth, by linking up facts". In fact He Concluded that " life is a chemical process ".

Why is chemistry important ? Because ,everything you do is chemistry! Even your body is made of chemicals. Chemical reactions occur when you breathe, eat ,or just sit reading. That means chemistry ,is the study of everything. Like every science it aims to understand the universe ,and create logically constant laws.

Chemistry is defined as the physical science concerned with the substance (Study of matter), its properties how ,and why substances combine ,or separate to form other substance(s). principally the changes that they undergo, and the natural laws that describe them spanning the range from qualitative in focus to qualitative (ie: synthesis, and application).

Branches of Chemistry : there are five main branches.

-1/ Organic chemistry : The study of the Carbon and its compounds, containing (C-H) bond.

-2/ Inorganic chemistry (Mineral) : The study of compounds which contain metals.

-3/ Physical chemistry : The branche that applies physics in the study of chemistry ,involving the application of thermodynamics ,and quantum mechanics to chemistry.

-4/ Analytical chemistry : The study of the composition ,and properties of matter ,also the development of tools used to measure them

-5/ Biochemistry : The study of the chemical processes that occur inside the living organisms.

QUESTIONING : -a/ how did scientists define chemistry ?

-b/ What is the aim of chemistry ?

-c/ Who is Lavoisier , and what did he conclude?

Acronyms: PVC= PolyVinyl Chloride (Vinyl is a strong plastic that is used to make wall, floor, cover.....)

- MDF= Middle Density Fiberboard.

TERMINOLOGY : -Mixing: خلط/مزج -Strange: غريب -Linking: ربط - Chemicals: مواد كيميائية -Breath: تنفس - occur : يحدث
- Undergo : يمر ب/يخضع - Spanning: يمتد كالجسر

- Qualitative : نوعي - Quantitative : كمي - Synthesis: تركيب - White-coated : يرتدي المنزر الأبيض

1- Organic chemistry : لKيمياء العضوية -Analytic: المعدنية -Inorganic : التحليلية - Biochemistry : الكيمياء الحيوية

TRANSLATION : - "I have tried to arrive at the truth by linking up facts". - "life is a chemical process"

"إن الحياة عبارة عن عملية كيميائية" "لقد حاولت الوصول إلى الحقيقة عن طريق ربط الوقائع"

GRAMMAR: Final "ed" /id/ Coated , quoted /d/ concerned , defined

Silent letters definition : Silent letters are letters that are not pronounced in words, even though they exist in the spelling. Auxiliary and dummy are the two major groups of silent letters. ... Silent letters include b, c, e, h, k, n, p, s, u, and w, while silent letter combinations include 'gh'.

Introduction to industry

BELKHEIR SMAIL / 1st Year ST (Course three)

Somebody asks about, or seeks to define industry! The answer is; based on what was said openly by the specialists .An industry is a group of manufacturers, or businesses that produce a particular kind of goods ,or services. And is an organized economic activity concened with manufactor ,extraction and processing of raw materials, or construction,also the output of a specified product , or service.

- The perseverance and determination to perform a task, or the organized action of making goods ,and services for sale

-The people,or the companies engaged in particular kind of commercial enterprise ;each industry has its own trade publication.

The industry is essentially classified as following:

-1 Primary industry : Production of goods with the help of nature requiring a little effort for instance agriculture, farming,fishing ,and so on.

- 2 Genetic industry : Reproduction ,or multiplication of certain spices of plants and animals with the objective of sale, for instance :plant nursery ,cattle rearing ,poultry ,etc.

- 3 Extractive industry : Drawing out goods from the soil ,air ,and water in crude form to generate other products for example : mines ,forests etc.

- 4 Manufacturing : Transforming raw materials; into finished products with the help of machines, and manpower, eg: textiles, chemicals, paper, and sugar.....

- 5 Construction industry : Comprises construction of buildings ,bridges, roads, dams, and canals.

- 6 Service industry : Services sector plays an important role in the development of the nations ,as hotels ,tourism ,entertainment ,and handicraft.

GRAMMAR : Tenses : the tense is a form of verb to the time of an action

Simple present :used to express an action in present time, habitual, usual actoins ,or daily event or univesral fact, and when relating a reality .

- a/ Structure: Subject + Main verb (1st form of verb) + Object.

- b/ Rules "s" , "es": If the subject is person (he, she, it) singular number add (s) or (es) with verb.

Example: Service sector plays an important role. (refers to a reality)

Final "ed" : /d/ engaged /t/ finished

QUESTIONNING : How can tourism play a role in the development of nations ?

TRANSLATION: - Openly : بصراحة / - Manufacturers : أصحاب المصانع / - Goods : السلع / - Plant nursery : مشتل / - Cattle rearing : تربية المواشي / - poultry : الدواجن / - Multiplication : الإستنساخ / - Spices : التوابل أو البهارات / - engaged : ملتزم / - Handicraft : الصناعة التقليدية / - Textile : النسيج / - Dams : السدود / - Canals : القنوات / - Entertainment : الترفيه ,التسلية / - Perseverance : المثابرة / - Determination : العزيمة ,التصميم / - Farming : الزراعة / - Fishing : الصيد البحري

What is a research methodology?

BELKHEIR Smail 1st Year (Course four)

Research methodology is the specific procedures or techniques used to identify, select, process, and analyze information about a topic. In a research paper, the methodology section allows the reader to critically evaluate a study's overall validity and reliability.

More precisely, research methods help us get a solution to a problem. ... The study of research methods gives training to apply them to a problem. The study of research methodology provides us the necessary training in choosing methods, materials, scientific tools and training in techniques relevant for the problem chosen.

DEFINITION OF RESEARCH

. Research is a careful and detailed study into a specific problem, subject, concern, or issue using the scientific method. ... This is best accomplished by turning the issue into a question, with the intent of the research to answer the question. Also is creative, and systematic work undertaken to increase the stock of knowledge (through discovering new information, and new understanding).

PURPOSES OF RESEARCH

Research is basically done for two purposes: to understand the world around us or why things or process work the way they do and to understand the applications of these processes. In other words, either pure research is carried out or applied research is carried out.

DEFINITION OF METHOD

A method is a particular procedure for accomplishing, or approaching something especially a systematic, and/or established one, and is the quality of being well organized in thought, or action.

STEPS OF METHODOLOGY AND RESEARCH METHODS

Step 1: Explain your methodological approach. Begin by introducing your overall approach to the research..

Step 2: Describe your methods of data collection.

Step 3: Describe your methods of analysis.

Step 4: Evaluate and justify your methodological choices.

CHARACTERISTICS OF RESEARCH

Research is a process of collecting, analyzing and interpreting information to answer questions. But to qualify as research, the process must have certain characteristics: it must, as far as possible, be systematic, controlled, rigorous, valid and verifiable, empirical and critical.

-Modal verbs : "Must", used to do (certainty/requirement).

-PHONETICS: pronunciation of (Final /ed/)

-/d/ __ used / organized / detailed / controlled - /t/ __ established /

-Silent letters rule : First, inert letters may be pronounced when the base word changes to a longer word. For example, in the word 'sign', the 'g' is not pronounced, but in the word 'signature', the 'g' makes a sound. If the letters in words do not change to make a sound, then they are known as empty letters.

Translation : Critically = بصورة حاسمة - Overall = كلي / بشكل عام - Approach = مفاتحة - Training = تدريب - Concern = إهتمام
- Creative = إبداعي / خلاق - Undertaken = المنجز / المبدول - Validity = القناعة / القبول

-Reliability = الثقة - Choices = إختيارات - Accomplishing = إنجاز - Rigorous = بالغ الدقة - Valid = سليم

What is corona (COVID-19) ?

BELKHEIR Smail 1st Year (Course one)

The word "CORONA" derived from ancient Greek korone it means:(garland, or wreath) plaited flowers, or leaves worn on the body, draped as decoration, or mark of honour.

- **CAUSES** : Coronavirus disease 2019 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The disease was first identified in December 2019 in Wuhan, the capital of China's Hubei province, and has since spread globally, resulting in the ongoing 2019–20 coronavirus pandemic .Common symptoms include fever, cough, and shortness of breath. Other symptoms may include muscle pain, sputum production, diarrhea, sore throat, loss of smell, and abdominal pain While the majority of cases result in mild symptoms, some progress to viral pneumonia and multi-organ failure. As of 2 April 2020, more than 981,000 cases of COVID-19 have been reported in more than two hundred countries and territories, resulting in approximately 50,200 deaths. More than 204,000 people have recovered.

- **TRANSMISSION** : The virus is spread mainly through close contact and via respiratory droplets produced when people cough or sneeze. Respiratory droplets may be produced during breathing but the virus is not generally airborne. People may also contract COVID-19 by touching a contaminated surface and then their face. It is most contagious when people are symptomatic, although spread may be possible before symptoms appear. The virus can survive on surfaces up to 72 hours. Time from exposure to onset of symptoms is generally between two and fourteen days, with an average of five days. The standard method of diagnosis is by reverse transcription polymerase chain reaction (rRT-PCR) from a nasopharyngeal swab. The infection can also be diagnosed from a combination of symptoms, risk factors and a chest (CT) scan showing features of pneumonia.

PREVENTION : Recommended measures to prevent infection include frequent hand washing, social distancing (maintaining physical distance from others, especially from those with symptoms), covering coughs and sneezes with a tissue or inner elbow, and keeping unwashed hands away from the face. The use of masks is recommended for those who suspect they have the virus and their caregivers. Recommendations for mask use by the general public vary, with some authorities recommending against their use, some recommending their use, and others requiring their use. Currently, there is no vaccine or specific antiviral treatment for COVID-19. Management involves treatment of symptoms, supportive care, isolation, and experimental measures.

The World Health Organization (WHO) declared the 2019–20 coronavirus outbreak a Public Health Emergency of International Concern (PHEIC) on 30 January 2020, and a pandemic on 11 March 2020. Local transmission of the disease has been recorded in many countries across all six continents.

Grammar : final "ed" -/t/ - recorded / - reported / - recommended

-**Modal auxiliaries** : "can" / "may" used to show a possibility.

TERMINOLOGY: -decoration : تزيين /-honour : شرف /-disease : وباء /-symptoms : أعراض /-fever : حمى /-infection : عدوى

-cough : سعال /-chest : صدر /-sneeze : عطس /-airborne : محمول في الهواء /-diagnosis : تشخيص /-risk : مخاطرة

-diarrhea : الإسهال /-transmission : الانتشار /-prevention : الوقاية , المنع /-pneumonia : التهاب الرئة /-outbreak : تفشى

-shortness of breath : ضيق في التنفس /-muscle pain : ألم عضلي /-sore throat : الحلق /-pandemic : وبائي /-ألم في الحنجرة , الحلق

"there is no vaccine or specific antiviral treatment for COVID-19: لا يوجد لقاح أو علاج مضاد لجرثومة كورونا"

Acronyms : "CT" scan __ Computed Tomography التصوير المقطعي بالحاسوب

IDIOMS - Definition : An idiom is an expression that takes on a figurative meaning when certain words are combined, which is different from the literal definition of the individual words. For example, let's say I said: 'Don't worry, driving out to your house is a piece of cake.' We would understand that the expression 'piece of cake' means that it's easy.