

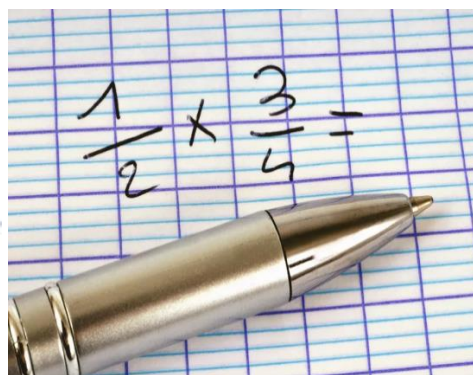


Academic English Course for 6th Graders at CCH Azcapotzalco

Grupo de Trabajo Institucional:
Programa de Fortalecimiento a la calidad del egreso (PROFOCE) 2019.
Inglés Académico



DIDACTIC MATERIAL



Autores e Impartidores:

Mtra. Araceli Padilla Rubio (Coord.) Lic. Jaime Becerra Reyes
Lic. Abigaíl Fernández López Lic. Rocío Estephany Montiel Moreno
Dir. CCH-A: Dr. Javier Consuelo Hernández

Presentación

Bienvenido a este curso de inglés que ha sido preparado especialmente para ti. Los estudios de trayectoria escolar bachillerato-licenciatura de la UNAM demuestran que es muy importante que consolides tus conocimientos disciplinarios y las habilidades básicas generales para mejorar tu aprovechamiento y desempeño en el ciclo superior. Los egresados del CCH cuentan con un perfil que sobresale, entre la población de licenciatura, en aspectos de autonomía y de pensamiento crítico. Sin embargo, se observa que es necesario complementar dicho perfil con un programa conformado con actividades de aprendizaje y cursos que te prepararán para cursar con mayor eficiencia las materias de la carrera de licenciatura que elijas.

En este curso tendrás la oportunidad de incursionar en el estudio de contenidos temáticos introductorios correspondientes a las áreas del conocimiento, las cuales se clasifican las 128 carreras profesionales que imparte la UNAM, en 31 cedes académicas en el país: Ciencias Físico-Matemáticas y de las Ingenierías; Ciencias Biológicas, Químicas y de la Salud; Ciencias Sociales y Humanidades y Artes.

El nivel de dominio requerido para el curso es de A2 del MCER. Es decir, se espera que en este curso pongas en práctica la competencia comunicativa alcanzada en los 4 cursos de inglés curricular previos. El curso tiene una duración de 40 horas y se divide en cuatro unidades, cada una de las cuales integra temas, actividades y ejercicios de cada una de las áreas disciplinarias.

La metodología de enseñanza-aprendizaje coincide con los enfoques disciplinarios y de los programas de la materia de inglés curricular I a IV: Enfoque Comunicativo, Enfoque Accional y Perspectiva Constructivista. Además las formas de trabajo de las actividades secuenciadas guardan congruencia con el Modelo Educativo del CCH y con sus principios pedagógicos: aprender a aprender, aprender a hacer y aprender a ser. De igual manera, y también en concordancia con el Enfoque Disciplinario del Área de Talleres, el proceso de aprendizaje sigue el ciclo de aprendizaje basado en las teorías cognitivas y del procesamiento de la información. Reconocimiento, expresión e interacción.

Las secuencias se estructuran en fases y los ejercicios abordan los contenidos conceptuales: léxico y gramática, contenidos procedimentales: actos de habla y funciones comunicativas, y contenidos actitudinales: componente sociolingüístico: estrategias de comprensión y expresión, habilidades académicas y formación hacia la autonomía.

Entre los temas que abordarás en este material se encuentran:

- **Unidad 1.** Carreras y algunos perfiles profesiográficos, vocabulario y conceptos de la física (átomo), de las matemáticas, la cibernética, etc.
- **Unidad 2.** Carreras y algunos perfiles profesiográficos; vocabulario y conceptos de medicina, biología, química y veterinaria.
- **Unidad 3.** Carreras y algunos perfiles profesiográficos, vocabulario y conceptos de las ciencias sociales: contabilidad, derecho, relaciones internacionales, administración, historia, etc.

- **Unidad 4.** Carreras y algunos perfiles profesiográficos, vocabulario y conceptos de las artes y las humanidades: origen y desarrollo de los conceptos de artes y de humanidades, sus campos de conocimiento, algunos movimientos, exponentes y sus obras artísticas: pictóricas y literarias.

Asiste a tus clases, participa con entusiasmo y los resultados estarán a la vista. Te deseamos disfrutes mucho este curso y concluyas con éxito tu bachillerato.

Let's start!

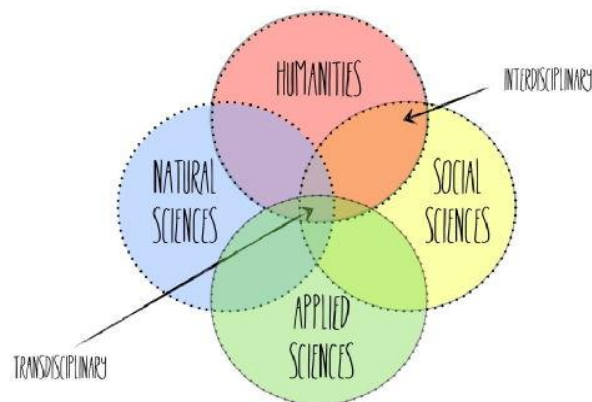
Areas of knowledge at CCH

- ❖ Mathematics
- ❖ Experimental Sciences
- ❖ Historical-social
- ❖ Language Workshops
- ❖ Language and Communication



Areas of Knowledge at UNAM-Majors

- I. Physical-Mathematical Sciences and Engineering
- II. Biological, Chemical and Health Sciences
- III. Social Sciences
- IV. Humanities and Arts



**Curso de Inglés académico para alumnos de 6º semestre del CCH-A.
Grupo de Trabajo Institucional del
“Programa de Fortalecimiento a la calidad del egreso (PROFOCE) 2019”**

Unidad I. Físico-matemático. (A. Padilla)

Propósito:

Al finalizar la unidad el alumno será capaz de interactuar en forma oral y escrita para comunicarse y realizar actividades académicas del área físico-matemático.

- **Aprendizaje 1.**

El alumno identifica y utiliza vocabulario y expresiones básicas para obtener información general y específica de textos orales y escritos del área de las ciencias físico-matemático.

- **Aprendizaje 2.**

El alumno aplicará estrategias de lectura/escucha global y selectiva para obtener información general y específica de textos orales y escritos del área de las ciencias físico-matemático.

- **Aprendizaje 3.**

El alumno utilizará vocabulario y expresiones para realizar operaciones básicas de materias del área físico-matemático.

- **Aprendizaje 4.**

El alumno será capaz de intercambiar opiniones sobre procesos de decisiones documentadas personales y profesionales.

1. Physics, Mathematics and Engineering.

Higher studies in electronic engineering, computing and physics-mathematics.

a) Types of Scientists

Scientists study the world around us using the scientific method. They perform experiments to find out how nature works. While we often talk about a person being a "scientist", there are actually many different types of scientists. This is because most scientists study and become experts in a specific field of science. There are literally hundreds of scientific fields of study. We will just list a few of the types of scientists here.

b) Answer in pairs. What do the following scientists study?

- Astronomer
- Botanist
- Chemist
- Cytologist
- Ecologist
- Entomologist
- Geneticist
- Geologist
- Marine biologist.....
- Microbiologist.....
- Meteorologist.....
- Nuclear physicist.....
- Ornithologist.....
- Paleontologist.....
- Pathologist.....
- Seismologist.....
- Zoologist.....

2. The near future.

a) Answer the questions and provide them to the class.

What will you do in the future? What career are you going to study?

What major are you going to study? What B.A./B.SC. are you interested in?

b) Have you heard about a specific job, but you are not sure what a person does in that position? Explore below to find information on the various careers listed.

Engineering Careers:



Aerospace Engineer

Agricultural Engineer

Automotive Engineer

Biomedical Engineer

Chemical Engineer

Civil Engineers

Computer Hardware Engineer

Electrical Engineer

Electronics Engineer

Energy Engineer

Engineers

Environmental Engineer

Industrial Engineer

Materials Engineer

Mechanical Engineer

Nano Engineer

Nautical Engineer

Nuclear Engineer

Physicist

Physicists study properties of matter and energy. They research the structure of matter and laws of nature and use that knowledge to create new materials and products. Do the names Einstein or Hawking ring a bell? Physicists use principles of math, physics, and chemistry in their research.

Employers of physicists include scientific firms, federal and state government agencies, and universities. Most positions require a doctorate in physics, but a master's degree will qualify you for jobs in manufacturing and teaching.



Technology-Related Careers:

Computer Animator

Computer Hardware Engineer

Computer Programmer

Computer Scientist

Cyber Security Worker

Network Administrator

Video Game Designer

Website Design

Earth Science-Related Careers:

Conservation Scientist

Environmental Scientist

Forester

Geologist

Geoscientist

Hydrologist

Computer Hardware Engineer

Computer hardware engineers research, design, develop, test, and oversee the installation of computer hardware like computer chips, circuit boards, systems, modems, keyboards, and printers. Their work has resulted in the rapid advances in computers and the technology that's available to everyday people. Most computer hardware engineers work in the computer and electronic product manufacturing industry, while others work in the computer systems design industry. A college degree in engineering is needed for almost all engineering jobs. Thanks to computer hardware engineers, you are browsing this totally cool website!



Computer Programmer

Computer Programmers boss computers around...well, sort of. They give computers instructions by writing code that tells the computer what tasks to perform. Clients work with programmers to develop a design idea or function for a computer program. It's the programmer's job to take that idea and make it functional. Sometimes they fix problems with old code so that computer programs work like new again. Programmers can work as independent consultants or as an employee of an organization. Most programmers have a bachelor's degree in computer science, and about 20% have a master's degree or doctorate.



Website Developer

Hello World! A popular line of code for newbies. From building websites from scratch, customizing CMS or making your media delivered to you in the fastest, coolest or most interesting way – this career is ever changing. Attention to detail as well as ability for the big picture and project planning are essential. As fast as technologies and formats advance – web developers have to be on it. <3



Math-Related

Careers:

Accountant

Actuary

Auditor

Data Scientist

Economist

Mathematician

Operation Research
Analyst

Quantitative Analyst

Statistician

Computer Animator

Computer animators blend art and science to create graphics and animation using hand drawings and computer software. They create the awesome animated effects you see in films, TV shows, video games, websites, and commercials. Major employers include movie and TV production companies, ad agencies, and software companies. Animators often have a bachelor's degree in art, design, or animation. To get a job in this field, you have to develop a portfolio which is a collection of your best work. It demonstrates your skills to clients or employers. A portfolio may include hand drawings, computer images, photos, and short animated clips.



Mathematician

Mathematicians are number crunchers. Basically, they research and study numbers. Mathematicians can be divided into two groups: theoretical mathematicians and applied mathematicians. Theoretical mathematicians study and prove new mathematical theories. Applied mathematicians use math theories to solve problems in many different fields including business, government, engineering, and the sciences. A doctorate in mathematics is required for most positions in this field.



Actuary

Actuaries ask "What are the odds?" They use math and statistics to calculate the odds of how likely something is to happen. For example, auto insurance companies use actuaries to calculate how likely it is that you might get into a fender bender while driving. Actuaries may also work in insurance, finance, marketing, manufacturing, and product development. To work in this field, your college major should be in mathematics, statistics, or economics. Next time you think that an act is random, an actuary may tell you different!



3. Scientists vs inventors.

a) What is the difference between a scientist and an inventor?

In general terms a scientist is a person who studies nature and makes theories and discoveries as to how nature works using the scientific method. An inventor takes the laws and theories of science and puts them to practical use by humans. Many people are both scientists and inventors.

b) In groups, discuss to answer the following questions:

Was Isaac Newton a scientist an inventor or both?

https://www.ducksters.com/biography/albert_einstein.php

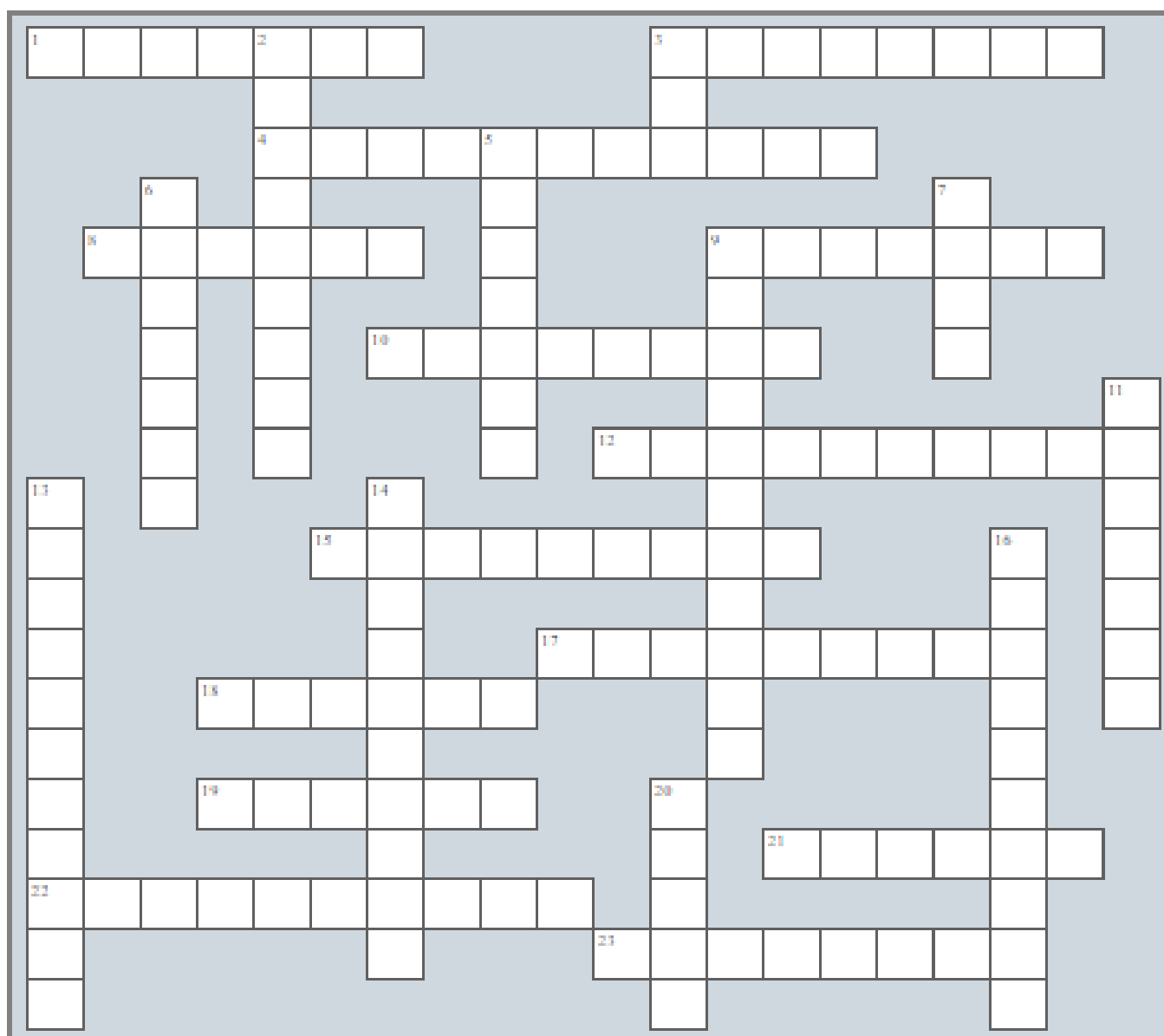
c) Read the clues to find the words in the puzzle

Across

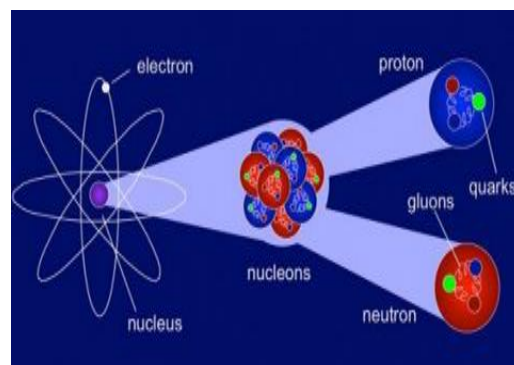
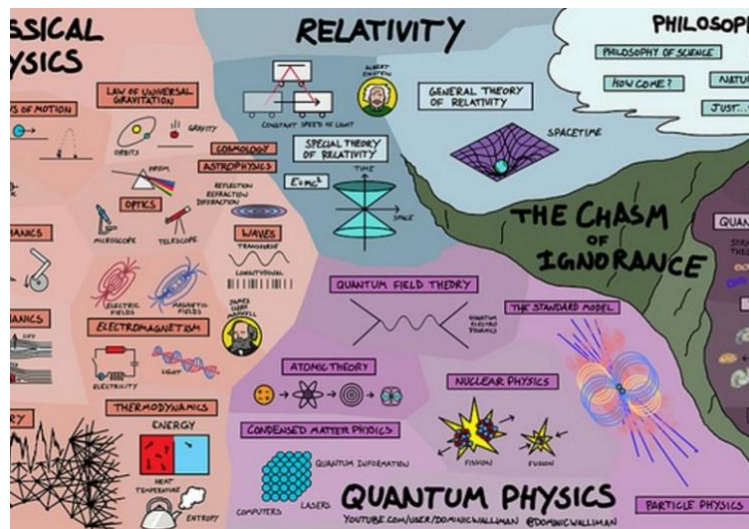
1. An entomologist studies these
3. A paleontologist may study the fossils of this ancient creature
4. Shaky events studied by seismologists
8. These types of biologists have an interest in ocean life
9. Branch of science that studies life and living organisms
10. Johannes Gutenberg brought the ____ press to Europe
12. She was radioactive
15. Alexander Graham Bell invented this
17. A scientist who studies animals
18. Isaac who discovered gravity
19. This George Washington was a farmer's best friend
21. He set up an invention lab at Menlo Park
22. He invented the cotton gin
23. The Wright Brothers invented the first one of these

Down

2. Antoine Lavoisier is often called the father of this branch of science
3. Watson and Crick discovered the structure of this molecule
5. A modern-day scientist who wrote A Brief History of Time, first name Stephen
6. He first used the telescope to study the planets and stars
7. The Model T from this man's company was the first mass produced car
9. He helped to found the United States in between inventions
11. A meteorologist may give us a forecast for this
13. Jane Goodall worked with these animals in the wild
14. Einstein came up with the Theory of ____
16. This type of scientist studies the stars and planets
20. ____ Pasteur founded the science of germ theory



https://www.ducksters.com/games/crossword_puzzle/scientists_inventors_print.php



4. Albert Einstein.

Read the biography and do the activities.

a) Put the subtitles in the appropriate place:

Bose-Einstein Condensate -

$E=mc^2$ and Einstein's Theory of Relativity

Fun Facts about Albert Einstein

Interesting facts about Albert Einstein

Photons

The Atomic Bomb

Was Albert Einstein a US citizen?

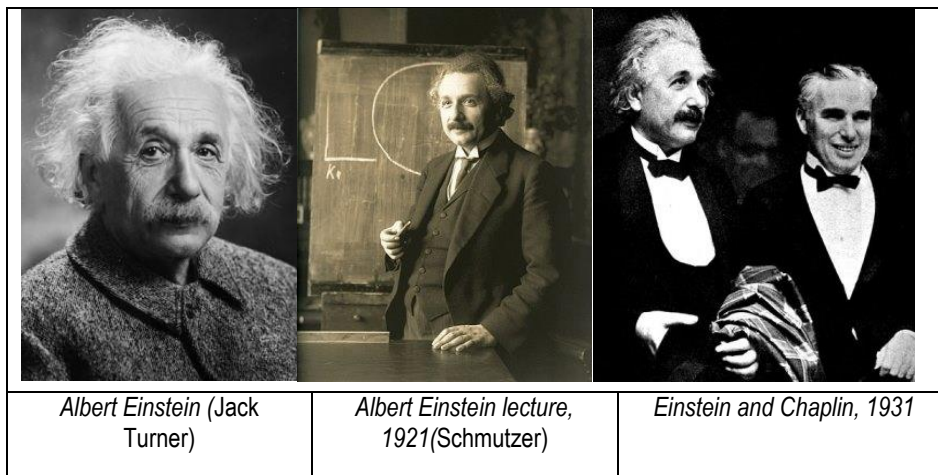
What other discoveries is Albert Einstein noted for?

Where did Einstein grow up?

Albert Einstein

Occupation: Physicist **Born:** March 14, 1879 in Ulm, Germany **Died:** April 18, 1955 in Princeton, New Jersey
Best known for: Founder of modern physics and the formula $E=MC^2$

Albert Einstein was a scientist in the early 1900s. He came up with some of the most important discoveries and theories in all of science. Some people consider him to be one of the smartest people of the 20th century. His face and name are often used as the picture or description of the consummate scientist. Read here to learn more about Albert Einstein; what he was like and what discoveries and inventions he made. Albert Einstein is considered one of the most important scientists in world history. His discoveries changed the course of modern physics establishing the field of relativity and also contributing in the area of quantum mechanics. He is most famous for his *Theory of General Relativity* and the equation " $E=mc^2$."



Einstein was born in Germany in 1879 where he grew up and attended grade school. He later moved to Switzerland where he attended university. After gaining fame for his "Miracle Year" papers, he eventually returned to Germany as a professor until Hitler gained power in 1933. As a Jew, Einstein could no longer safely live in Germany so he moved to the United States where he remained until his death in 1955.

Having lived through two world wars, Einstein was a pacifist who cared deeply about preventing war in the future. Although his discoveries led to the creation of the nuclear bomb, Einstein fought to have nuclear weapons eliminated. Einstein was also passionate about civil rights, individualism, and the protection of freedom throughout the world.

-
- His birthday, March 14, is known as "Pi" day because 3/14 makes up the first three digits of the number pi (3.14).
 - When a young Einstein was introduced to his new baby sister, he thought that she was a toy his parents had bought for him. After looking her over for a few minutes he responded "where are the wheels?"
 - Einstein's parents initially wanted to name him "Abraham" but, they eventually thought the name sounded "too Jewish" and opted for another "A" name, "Albert."
 - While working at the patent office, Einstein found he could get his daily job done in just a few hours. He spent the rest of the day working on his own scientific theories.
 - He and two of his best friends formed a discussion group, the Olympia Academy, they debated physics theories and philosophy.
 - When his son Hans Albert announced that he wanted to be an engineer Einstein replied "I think it's a disgusting idea."
 - In 1921, the United States Senate debated the *Theory of Relativity* while Einstein was visiting the United States.
 - Einstein chose to exchange letters with Sigmund Freud, a pacifist, in 1932 to discuss politics and war. Einstein suggested in his letters that the only way to end war was to have an international organization with more power than the current League of Nations.
 - When Einstein discovered that the Germans had put a \$5,000 bounty on his head he replied "I didn't know it was worth that much!"
 - He once had a pet parrot named Bibo.
 - The FBI gathered 1,427 pages of information while investigating Einstein to determine if he was a communist. Einstein wasn't a communist and no incriminating evidence was found. Oddly enough, Einstein did unknowingly have an affair with a Soviet spy. Fortunately for him, the FBI didn't discover the affair despite their ongoing investigation.
 - When asked if he believed in immortality Einstein responded "No. And one life is enough for me."
 - Einstein was once playing violin in a quartet that included a famous violin virtuoso. Einstein's timing got off and the virtuoso stopped playing and said "What's the matter professor, can't you count?"
 - He nicknamed his violin Lina.

- Einstein loved to walk, but didn't drive. His wife Elsa once said "The professor does not drive. It's too complicated for him."
https://www.ducksters.com/biography/scientists/albert_einstein/

Albert Einstein was born in Ulm, Germany on March 14, 1879. He spent most of his childhood in Munich, Germany. His father had an electronics company and Albert learned a lot about science and electronics from his dad. He really liked math and wanted to pursue math and science in school. He didn't finish school in Germany, but ended up his schooling in Switzerland. Einstein would later move back to Bern, Germany and work in the patent office.

Albert immigrated to the United States in 1933. He was fleeing from the Nazis in Germany who didn't like Jewish people. If he had stayed in Germany he would not have been able to hold a teaching position at the University as a Jewish person. At one point the Nazis had a bounty on his head. In 1940 Einstein became a US citizen.

Albert Einstein had many discoveries as a scientist, but is most known for his Theory of Relativity. This theory changed much in the way scientists look at the world and set the foundation for many modern inventions, including the nuclear bomb and nuclear energy. One equation from the theory is $E=mc^2$. In this formula, "c" is the speed of light and is a constant. It is assumed to be the fastest speed possible in the universe. This formula explains how energy E is related to mass (m). The Theory of Relativity explained a lot of how time and distance may change due to the "relative" or different speed of the object and the observer.

Albert Einstein laid much of the foundation for modern physics. Some other of his discoveries include:

In 1905 Einstein came up with the concept that light is made up of particles called photons. Most scientists of his day didn't agree, but later experiments showed this to be the case. This became an important discovery for many branches of science and he was awarded the Nobel Prize for Physics in 1921.

Together with another scientist, Satyendra Bose, Einstein discovered another state of matter. Sort of like liquid or gas or solid states. Today this discovery is used in cool stuff like lasers and superconductors.

Einstein wrote many papers which included theories and models that would help define and move forward our understanding of the world and particularly quantum physics. Some of his work included subjects from a model for a wormhole to the Einstein refrigerator.

Albert Einstein did not work directly on inventing the Atomic bomb, but his name is closely associated with the bomb. This is because his scientific work and discoveries were key in the bomb's development, specifically his work on energy and mass and his famous equation: $E=mc^2$.

-
- Albert experienced speech problems as a child. His parents were worried that he wasn't very smart!
 - He failed his first try on his entrance exam for college (this gives us all hope!).

- He was offered the presidency of Israel.
- He auctioned off a hand written version of his Theory of Relativity in 1940 for 6 million dollars in order to help with the war effort.
- Albert had a sister named Maja.

5. Listen to the biography of Graham Bell and write relevant information.

https://www.ducksters.com/biography/albert_einstein.php

Occupation:

Born:

Died:

Best known for:

a) Draw a time line with important facts along his life.

b) Answer the questions:

What were funny facts about him?

What were interesting facts about him?

What discoveries is Graham Bell famous for?

Where did Graham Bell grow up?

6. Physics

a) Before reading.

Do you remember What Physics study?

Write five words you can think of that is related to Physics:

A HISTORY OF THE ATOM: THEORIES AND MODELS

How have our ideas about atoms changed over the years? This graphic looks at atomic models and how they developed.

SOLID SPHERE MODEL	PLUM PUDDING MODEL	NUCLEAR MODEL	PLANETARY MODEL	QUANTUM MODEL
JOHN DALTON	J.J. THOMSON	ERNEST RUTHERFORD	NIELS BOHR	ERWIN SCHRÖDINGER
 1803	 1904	 1911	 1913	 1926
Dalton drew upon the Ancient Greek idea of atoms (the word 'atom' comes from the Greek 'atomos' meaning indivisible). His theory stated that atoms are indivisible, those of a given element are identical, and compounds are combinations of different types of atoms.	Thomson discovered electrons (which he called 'corpuscles') in atoms in 1897, for which he won a Nobel Prize. He subsequently produced the 'plum pudding' model of the atom. It shows the atom as composed of electrons scattered throughout a spherical cloud of positive charge.	Rutherford fired positively charged alpha particles at a thin sheet of gold foil. Most passed through with little deflection, but some deflected at large angles. This was only possible if the atom was mostly empty space, with the positive charge concentrated in the centre: the nucleus.	Bohr modified Rutherford's model of the atom by stating that electrons moved around the nucleus in orbits of fixed sizes and energies. Electron energy in this model was quantised; electrons could not occupy values of energy between the fixed energy levels.	Schrödinger stated that electrons do not move in set paths around the nucleus, but in waves. It is impossible to know the exact location of the electrons; instead, we have 'clouds of probability' called orbitals, in which we are more likely to find an electron.
RECOGNISED ATOMS OF A PARTICULAR ELEMENT DIFFER FROM OTHER ELEMENTS	RECOGNISED ELECTRONS AS COMPONENTS OF ATOMS	REALISED POSITIVE CHARGE WAS LOCALISED IN THE NUCLEUS OF AN ATOM	PROPOSED STABLE ELECTRON ORBITS; EXPLAINED THE EMISSION SPECTRA OF SOME ELEMENTS	SHOWS ELECTRONS DON'T MOVE AROUND THE NUCLEUS IN ORBITS, BUT IN CLOUDS WHERE THEIR POSITION IS UNCERTAIN
ATOMS AREN'T INDIVISIBLE - THEY'RE COMPOSED FROM SUBATOMIC PARTICLES	NO NUCLEUS; DIDN'T EXPLAIN LATER EXPERIMENTAL OBSERVATIONS	DID NOT EXPLAIN WHY ELECTRONS REMAIN IN ORBIT AROUND THE NUCLEUS	MOVING ELECTRONS SHOULD EMIT ENERGY AND COLLAPSE INTO THE NUCLEUS; MODEL DID NOT WORK WELL FOR HEAVIER ATOMS	STILL WIDELY ACCEPTED AS THE MOST ACCURATE MODEL OF THE ATOM

© COMPOUND INTEREST 2016 - WWW.COMPOUNDCHEM.COM | Twitter: @compoundchem | Facebook: www.facebook.com/compoundchem
This graphic is shared under a Creative Commons Attribution-NonCommercial-NoDerivatives licence.

b) Read the following questions and in teams of four try to answer them orally.

What is physics?

Why is physics important?

What is physics?

What are important discoveries in Physics?

c) Listen and read the text. Fill in the blanks.

What is physics?

Physics is a branch of science that studies matter and its motion as well as how it interacts with energy and forces. Physics is a huge subject. There are many branches of physics including electricity, astronomy, motion, waves, sound, and light. Physics studies the smallest elementary particles and atoms as well as the largest stars and the universe.

Scientists who are experts in physics are called physicists. Physicists use the scientific method to test hypotheses and develop scientific laws. Some of the most famous scientists in history are considered physicists such as Isaac Newton and Albert Einstein.

Why is physics important?

Physics explains how the world around us works. Many of our modern technologies are based off of scientific discoveries made in the science of physics. Engineers use physics to help design airplanes, cars, buildings, and electronics such as computers and cell phones.

Important Discoveries in Physics

- Nicholas Copernicus - discovered that the Earth rotates around the Sun.
- Galileo - demonstrated that heavy objects do not fall faster than lighter ones in his famous Leaning Tower of Pisa experiment.
- Isaac Newton - published the three laws of motion and explained how gravity works.
- John Dalton - described the atom and the atomic theory of matter.
- Albert Einstein - published the theory of relativity.
- Max Planck - described quantum theory.

d) Write the subjects in Spanish. Next find which subjects are taught at CCH.

Motion

Scalars and Vectors
Vector Math
Mass and Weight
Force
Speed and Velocity
Acceleration
Gravity
Friction
Laws of Motion
Simple Machines
Electricity
Conductors and Insulators
Electric Current and Circuits
Ohm's Law
Digital Electronics
Electronic Communications
Uses of Electricity
Electricity in Nature
Static Electricity
Magnetism
Electric Motors

Work and Energy

Energy
Kinetic Energy
Potential Energy
Work
Power
Momentum and Collisions
Pressure
Heat
Temperature
Astronomy
Solar System
Black Holes
Galaxies
Stars

Waves and Sound

Waves, Properties and behavior
Basics of Sound
Pitch and Acoustics
The Sound Wave
The Ear and Hearing

Light and Optics

Light Spectrum
Light as a Wave
Photons
Electromagnetic Waves
Telescopes
Lenses

Nuclear Physics and Relativity

Atom
Elements
Periodic Table
Radioactivity
Theory of Relativity
Relativity - Light and Time
Elementary Particles - Quarks
Nuclear Energy and Fission

Glossary of Electricity Terms

PERIODIC TABLE OF ELEMENTS																	
1 H Hydrogen																	2 He Helium
3 Li Lithium	4 Be Beryllium											5 B Boron	6 C Carbon	7 N Nitrogen	8 O Oxygen	9 F Fluorine	10 Ne Neon
11 Na Sodium	12 Mg Magnesium											13 Al Aluminum	14 Si Silicon	15 P Phosphorus	16 S Sulfur	17 Cl Chlorine	18 Ar Argon
19 K Potassium	20 Ca Calcium	21 Sc Scandium	22 Ti Titanium	23 V Vanadium	24 Cr Chromium	25 Mn Manganese	26 Fe Iron	27 Co Cobalt	28 Ni Nickel	29 Cu Copper	30 Zn Zinc	31 Ga Gallium	32 Ge Germanium	33 As Arsenic	34 Se Selenium	35 Br Bromine	36 Kr Krypton
37 Rb Rubidium	38 Sr Strontium	39 Y Yttrium	40 Zr Zirconium	41 Nb Niobium	42 Mo Molybdenum	43 Tc Technetium	44 Ru Ruthenium	45 Rh Rhodium	46 Pd Palladium	47 Ag Silver	48 Cd Cadmium	49 In Indium	50 Sn Tin	51 Sb Antimony	52 Te Tellurium	53 I Iodine	54 Xe Xenon
55 Cs Cesium	56 Ba Barium	57 La Lanthanum	58 Ce Cerium	59 Pr Praseodymium	60 Nd Neodymium	61 Pm Promethium	62 Sm Samarium	63 Eu Europium	64 Gd Gadolinium	65 Tb Terbium	66 Dy Dysprosium	67 Ho Holmium	68 Er Erbium	69 Tm Thulium	70 Yb Ytterbium	71 Lu Lutetium	72 Hf Hafnium
73 Ta Tantalum	74 W Tungsten	75 Re Rhenium	76 Os Osmium	77 Ir Iridium	78 Pt Platinum	79 Au Gold	80 Hg Mercury	81 Tl Thallium	82 Pb Lead	83 Bi Bismuth	84 Po Polonium	85 At Astatine	86 Rn Radon	87 Fr Francium	88 Ra Radium	89 Ac Actinium	90 Th Thorium
91 Pa Protactinium	92 U Uranium	93 Np Neptunium	94 Pu Plutonium	95 Am Americium	96 Cm Curium	97 Bk Berkelium	98 Cf Californium	99 Es Einsteinium	100 Fm Fermium	101 Md Mendelevium	102 No Nobelium	103 Lr Lawrencium	104 Rg Roentgenium	105 Nh Nihonium	106 Fl Flerovium	107 Mc Moscovium	108 Lv Livermorium
109 Ts Tennessine	110 Og Oganesson	111 Nh Nihonium	112 Fl Flerovium	113 Mc Moscovium	114 Lv Livermorium	115 Ts Tennessine	116 Og Oganesson	117 Nh Nihonium	118 Fl Flerovium	119 Mc Moscovium	120 Lv Livermorium	121 Ts Tennessine	122 Og Oganesson	123 Nh Nihonium	124 Fl Flerovium	125 Mc Moscovium	126 Lv Livermorium

7.The Atom

- Do you know what the word “Atom” means?
- Go to: <https://www.youtube.com/watch?v=LhveTGbIGHY> , watch the video and then draw an atom and name its parts.

c) Listen to the vocabulary and practice.

8. Math's. Math operations. Listen and practice.

Example: $5^2 + (3 \cdot 1) / 2 \cdot 4 \times 1$

Step 1: Parenthesis
 $5^2 + (3 \cdot 1) / 2 \cdot 4 \times 1$
 $5^2 + 2 / 2 \cdot 4 \times 1$

Step 2: Exponents
 $25 + 2 / 2 \cdot 4 \times 1$

Step 3: Multiply and Divide*
 *Perform the operation that appears first
 $25 + 1 \cdot 4 \times 1$
 $25 + 1 \cdot 4$

Step 4: Add and Subtract*
 *Perform the operation that appears first
 $26 \cdot 4$
 22

Solution: 22

Math Symbols

$+$ plus/positive	$-$ minus/negative	$\times \cdot$ times/multiply	$\div /$ divide
$=$ equality	\neq inequality	\approx approximately equal	\pm plus or minus
$<$ is less than	\leq is less than or equal to	$>$ is greater than	\geq is greater than or equal to
∞ infinity	$!$ factorial	\emptyset empty set	$\%$ percent
π pi	\therefore therefore	\because because	\sum sum of
\int Integral	$ x $ absolute value of x	\sim is similar to	\parallel is parallel to
$\sqrt{\quad}$ square root	α alpha	β beta	\equiv is congruent to

a) Read the definitions and match them to the concepts on the table.

1-addends	5-divisible	9-greatest common factor	13-product	17-square root
2-addition	6-division	10-minuend	14-quotient	18-subtraction
3-common factor	7-divisor	11-multiple	15-remainder	19-subtrahend
4-dividend	8-factors	12-multiplication	16-square	20-sum

- 1_____ The numbers that are added together in addition problems.
- 2_____ The mathematical operation where two or more numbers are combined to make a sum. The "+" sign is used to indication addition.
- 3_____ A factor that is shared by two or more numbers.
- 4_____ When dividing, the dividend is the number that is getting divided or broken up.
- 5_____ A number is divisible if it can be divided without leaving a remainder.
- 6_____ A mathematical operation where a number is split into equal groups.
- 7_____ In division, the divisor is the number by which the dividend is divided.
- 8_____ The numbers that are multiplied together to get an answer in a multiplication operation.
- 9_____ In a subtraction operation, the minuend is the number from which another number is

subtracted.

10_____ A multiple is the product of any number and another whole number.

11_____ The mathematical operation of scaling one number by another. It can be thought of as adding the same number together a given number of times. The symbol "x" is often used to indicate a multiplication operation.

12_____ The product is the answer to a multiplication operation.

13_____ The quotient is the answer to a division operation. The quotient does not include the remainder, if there is one.

14_____ The remainder is the amount left over after a division operation.

15_____ An operation where a number is multiplied by itself. It is written with a small 2 to the right of the number like X^2 .

16_____ A number that produces a given number when multiplied by itself. The symbol for square root is $\sqrt{}$.

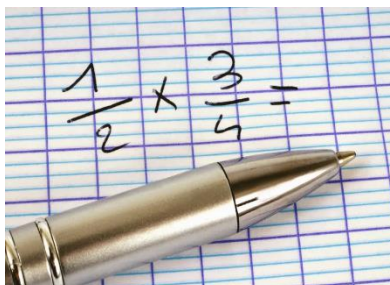
17_____ A mathematical operation that solves for the difference between two numbers. The symbol for the operation is "-", which is also called the "minus" sign.

18_____ This is the number that is subtracted in a subtraction operation.

19_____ The answer to an addition operation.

b) Label the type of operations.

1. _____ $8 + 7 = 15$, in this example 15 is the...
2. _____ $5 \times 3 = 15$, this can also be written as $5 + 5 + 5 = 15$.
3. _____ $5^2 = 5 \times 5 = 25$
4. _____ $12 \div 4 = 3$. In this example 12 is split into 4 equal parts of 3.
5. _____ $4 + 2 + 7 = 13$
6. _____ $40 - 10 = 30$, in this operation 40 is the ...
7. _____ $8 - 2 = 6$, in this example 2 is the subtrahend.



PRACTICE

ADDING SUBTRACTING FRACTIONS WITH LIKE DENOMINATORS SHEET 1

- 1) $\frac{2}{5} + \frac{1}{5} = \frac{\quad}{5}$
- 2) $\frac{3}{6} - \frac{2}{6} = \frac{\quad}{6}$
- 3) $\frac{2}{7} + \frac{4}{7} = \frac{\quad}{7}$
- 4) $\frac{1}{8} + \frac{2}{8} = \frac{\quad}{8}$
- 5) $\frac{3}{5} - \frac{1}{5} = \frac{\quad}{5}$
- 6) $\frac{5}{10} - \frac{4}{10} = \frac{\quad}{10}$
- 7) $\frac{2}{9} + \frac{3}{9} = \frac{\quad}{9}$
- 8) $\frac{6}{11} - \frac{3}{11} = \frac{\quad}{11}$
- 9) $\frac{9}{20} - \frac{2}{20} = \frac{\quad}{20}$
- 10) $\frac{1}{7} + \frac{4}{7} = \frac{\quad}{7}$
- 11) $\frac{8}{20} + \frac{3}{20} = \frac{\quad}{20}$
- 12) $\frac{8}{12} - \frac{3}{12} = \frac{\quad}{12}$
- 13) $\frac{4}{15} + \frac{7}{15} = \frac{\quad}{15}$
- 14) $\frac{11}{25} - \frac{7}{25} = \frac{\quad}{25}$
- 15) $\frac{7}{11} - \frac{3}{11} = \frac{\quad}{11}$
- 16) $\frac{4}{13} + \frac{5}{13} = \frac{\quad}{13}$
- 17) $\frac{9}{25} - \frac{9}{25} = \frac{\quad}{25}$
- 18) $\frac{13}{25} + \frac{6}{25} = \frac{\quad}{25}$
- 19) $\frac{5}{14} + \frac{4}{14} = \frac{\quad}{14}$
- 20) $\frac{11}{13} - \frac{9}{13} = \frac{\quad}{13}$

COMPUTERISE
Word Search

DIRECTIONS: Find and circle the vocabulary words in the grid. Look for them in all directions including backwards and diagonally.




S	J	O	I	V	O	M	O	T	H	E	R	B	O	A	R	D	F	S
V	U	C	B	E	A	U	R	N	M	E	G	F	Q	Y	D	U	W	V
A	O	W	X	S	B	W	F	D	Z	V	O	R	O	W	S	S	A	P
N	E	B	O	S	U	H	I	O	A	U	I	K	P	R	V	J	P	R
S	E	R	V	E	R	Q	D	N	L	S	Y	Q	I	G	Z	K	F	R
Y	P	D	E	H	L	R	G	X	D	D	A	O	L	N	W	O	D	U
G	A	C	T	L	A	S	Z	R	X	O	E	K	M	O	U	S	E	P
V	D	D	Y	O	P	S	V	E	K	M	W	R	J	I	N	E	S	L
F	V	R	B	T	A	C	D	T	A	C	P	S	U	N	D	H	X	O
D	T	Y	A	P	A	R	A	N	X	G	J	W	K	R	N	C	T	A
N	E	X	G	U	F	E	R	I	E	I	T	S	I	B	G	A	O	D
K	N	R	I	O	N	E	X	R	E	R	C	V	Z	Z	S	C	P	T
P	R	E	G	Y	S	N	A	P	O	R	E	S	W	O	R	B	M	N
D	E	W	H	U	F	W	T	O	R	A	K	S	M	T	P	I	E	
U	T	O	S	A	D	F	I	L	Q	J	F	W	A	U	M	B	O	M
F	N	T	D	R	C	N	L	E	F	N	D	Z	T	E	R	X	X	U
O	I	E	A	Y	O	K	L	E	V	E	C	U	H	F	P	I	N	C
N	K	H	M	M	K	J	E	L	Y	P	L	N	O	D	O	S	V	O
T	A	R	E	B	O	O	T	R	U	H	C	R	A	E	S	S	F	D

Browser	Font	Motherboard	Server
Cache	Gigabyte	Mouse	Software
CPU	Hardware	Password	Speaker
Desktop	Icon	Printer	Upload
Download	Internet	Reboot	USB
Driver	Keyboard	Save	Username
DVD	Menu	Screen	Virus
Folder	Monitor	Scroll	Windows
		Search	

Name: _____ Grade: _____ Date: _____

Look for the words from left to right, right to left, up to down and down to up and find the hidden words from the given list and underline the words in the list as you find them.

Engineering (aviation) Set 2



E	C	N	A	N	E	T	N	I	A	M	X	S	L	P
J	N	O	A	H	T	L	O	Z	Q	E	C	A	I	V
P	M	L	B	Y	H	V	Z	X	N	N	G	Q	M	M
L	A	A	R	D	K	L	E	A	F	G	G	O	I	J
G	E	N	E	R	A	T	O	R	K	A	R	B	T	I
A	Q	Z	L	A	B	E	L	L	A	G	S	A	S	D
U	C	G	M	U	P	R	O	T	C	E	J	N	I	E
L	T	B	B	L	R	V	U	E	S	D	Y	C	H	T
A	U	E	W	I	X	D	S	M	F	I	F	T	X	R
U	D	E	S	C	Q	G	J	Q	U	A	T	B	E	
N	E	F	U	S	E	L	A	G	E	L	I	C	F	V
A	M	S	J	U	U	J	O	D	L	F	L	A	P	N
M	M	U	G	A	S	K	E	T	E	P	L	P	C	I
K	A	R	O	T	A	V	E	L	E	N	G	I	N	E
F	J	M	A	T	E	R	I	A	L	Z	F	H	L	D

Customary & Metric Units of Measure

Customary Units
The Customary System of Measurement is used primarily in the United States.

Length	
1 foot (ft)	12 inches (in.)
1 yard (yd)	3 feet
1 yard	36 inches
1 mile (mi)	1,760 yards
1 mile	5,280 feet

Capacity	
1 pint (pt)	2 cups
1 quart (qt)	2 pints
1 quart	4 cups
1 gallon (gal)	4 quarts

Weight	
1 pound (lb)	16 ounces (oz)
1 ton (T)	2,000 pounds

Temperature	
water freezes	32°F
water boils	212°F
normal body temperature	98.6°F

Degrees Fahrenheit (°F) are customary units of temperature.

Comparing Metric & Customary Measures	
Length	
1 in. = 2.54 cm	1 L = 1.06 qt
1 m = 39.37 in.	1 gal = 3.8 L
1 m = 1.09 yd	
1 km = 0.6 mi	
1 mi = 1.6 km	
Weight & Mass	
1 oz = 28 g	
1 kg = 2.2 lb	

Metric Units

The Metric System of Measurement is used primarily in most parts of the world. It is a base-ten system.

Length	
1 centimeter (cm)	10 millimeters (mm)
1 decimeter (dm)	10 centimeters (cm)
1 meter (m)	10 decimeters
1 kilometer (km)	1,000 meters

Capacity	
1 liter (L)	1,000 milliliters (mL)
10 deciliters (dL)	1 liter (L)

Mass	
1 gram (g)	1,000 milligrams (mg)
1 kilogram (kg)	1,000 grams

Temperature	
water freezes	0°C
water boils	100°C
normal body temperature	37°C

Degrees Celsius (°C) are metric units of temperature.

Unidad II. Ciencias Biológicas, Química y de la Salud (A. Fernández)

Propósito:

Al finalizar la unidad el alumno será capaz de interactuar en forma oral y escrita para comunicarse y realizar actividades académicas del área de ciencias biológicas.

- Aprendizaje 1.

El alumno identifica y utiliza vocabulario y expresiones básicas para obtener información general y específica de textos orales y escritos del área de ciencias biológicas

- Aprendizaje 2.

El alumno aplicará estrategias de lectura/escucha global y selectiva para obtener información general y específica de textos orales y escritos del área de ciencias biológicas.

- Aprendizaje 3.

El alumno utilizará vocabulario específico en relación a las materias del área de ciencias biológicas.

- Aprendizaje 4.

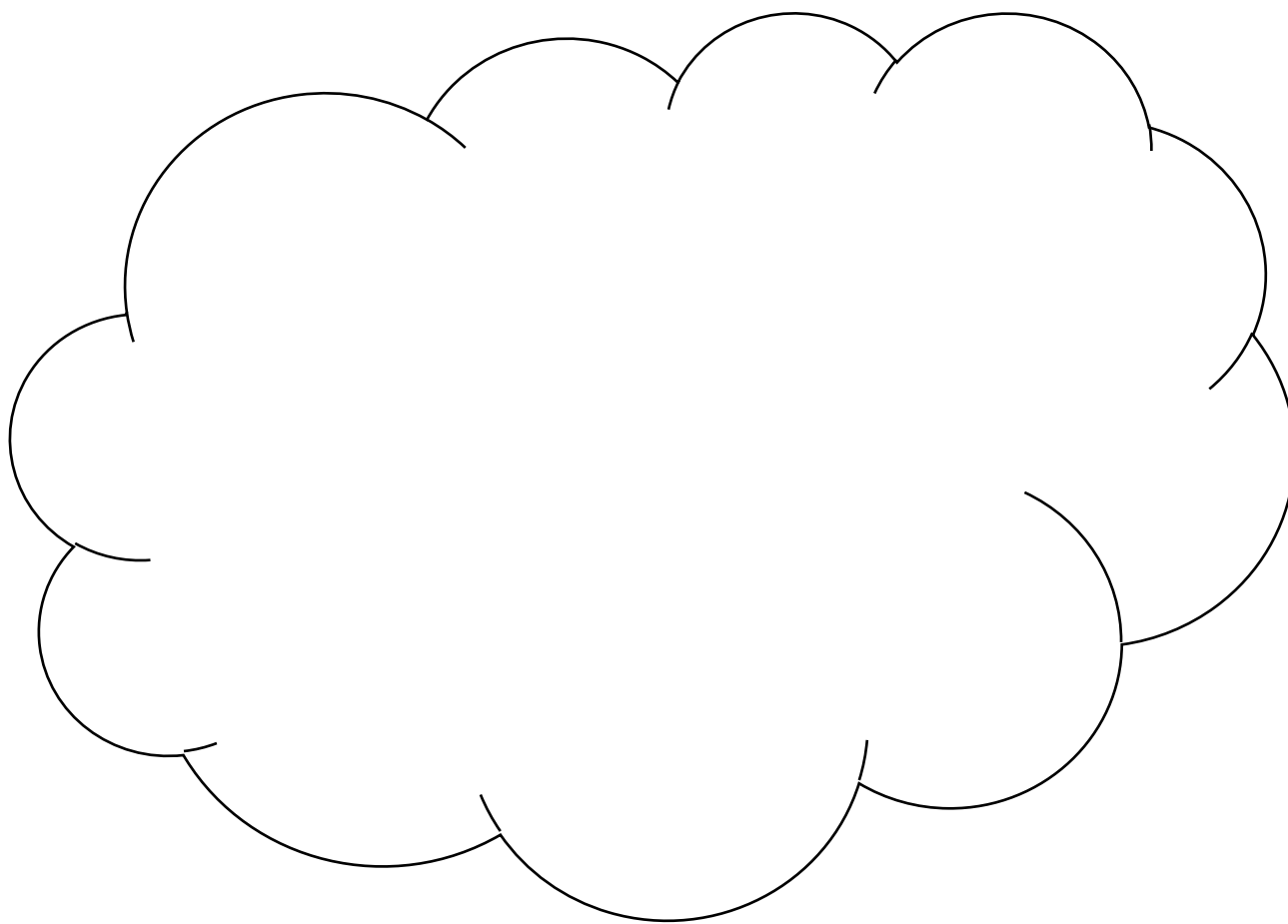
El alumno será capaz de intercambiar opiniones, problemas y soluciones en relación a problemas de salud.

Unit II. Chemical and health biological sciences.

Presentation

We have heard about different areas about sciences. The sciences covered abroad the high interest in the world, these areas covered five main disciplines: medicine, veterinary, chemistry, biology, and nursing. Some topics into these areas are similar.

1. What do you think these disciplines have in common?



2. Read the text “Learning chemical and health biological sciences” and write the subtitle that correspond.



government service, public health, military service, private industry, and other areas.

Finally, some general characteristics that are common to all living beings and that differentiate them from inanimate matter:

- * Into the chemical bases and the organization of life, there is an order.
- * Diversity of organisms, hierarchical ordering.
- * Some organisms are involved in water and its properties: Biomolecules (proteins, nucleic acids, carbohydrates, and lipids).
- * All living beings have fundamental metabolic processes.
- * The cell as a structural and functional unit of living beings.
- * Structure of a tissue.
- * Cellular types that may constitute it.
- * They have tissue types: epithelial, muscular, nervous, connective and bone.

3. Language. Read the text and look for the word (synonym) that corresponds.

- procedure

- medicines

- General practitioner

- Illness

- following

- Investigation

- safety

- Construction

- diversification

- doctor

a) Look for the 10 words given related to chemical and health biological sciences science.

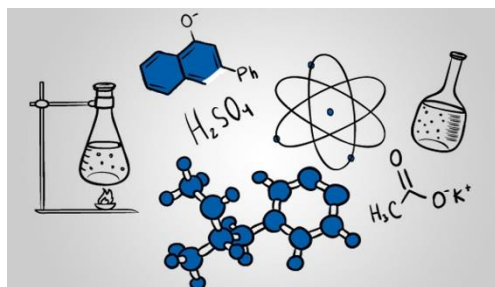
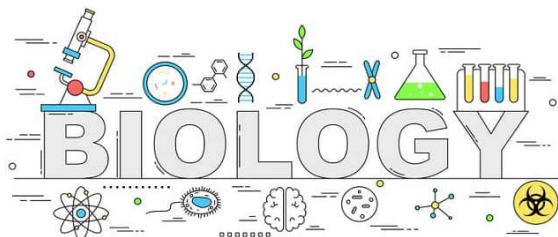
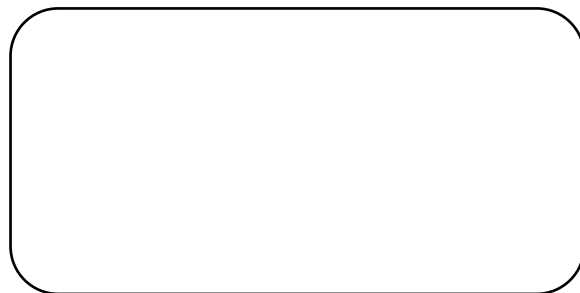
Sciences



animal	biology
cell	chemistry
data	dentist
element	genetics
medicine	muscle
nursing	science
society	structure
unit	vet

MEDICINE AND NURSING, BIOLOGY, CHEMISTRY, VETERINARY

1. Write some words related with these disciplines (Brain storm)



2. Write the concept in the column that correspond and choose ten words that you don't understand and look up the meaning.

care injury illness bone spectra mammals pet on heat tissue
 Idiopathic arthropod atom remedy species synthesis invertebrates
 diaphragm application organic infection recipe biotic
 acid bilateral prokaryote chronical reaction stiffler primate analysis
 amphibians metal caudal vein preparation polymer

Chemistry	Medicine/Nursing	Biology	Veterinarian

English

Spanish

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____



A) MEDICINE /NURSING

1. What is the definition of medicine?

Medicine is the field of study_____

2. Read the text “What’s the medicine?” and identify the words that correspond.

- | | | |
|----------------|------------------|------------|
| a) essru | e) cithllopa | i)essesss |
| b) pcailstseis | f) untrcpureu | j) gnitaer |
| c) gnisaosi | g) carealth | |
| d) seasei | h)hysiotherapisc | |

WHAT’S MEDICINE?

Medicine is the field of health and healing.

It includes **a) n**_____, doctors, and various **b) s**_____. It covers

c) d_____ treatment, and prevention of **d) d**_____, medical research, and many other aspects of health. Medicine aims to promote and maintain health and wellbeing.

Conventional modern medicine is sometimes called **e) a**_____ medicine. It involves the use of drugs or surgery, often supported by counseling and lifestyle measures.

Alternative and complementary types of medicine include **f) a**_____, homeopathy, herbal medicine, art therapy, traditional Chinese medicine, and many more.

A clinician is a health worker who works directly with patients in a hospital or other **g) h**_____

setting. Nurses, doctors, **h) p**_____, and other specialists are all clinicians.

Not all medical specialists are clinicians. Researchers and laboratory workers are not clinicians because they do not work with patients. The physician **i) a**_____ the individual, with the aim of diagnosing, **j)t**_____ and preventing disease using knowledge learned from training, research, and experiences, and clinical judgment.



SOME MEDICAL TERMINOLOGY : Prefix and suffix

Bio-	Life	Biology: The study of living things.
Carcin-	Pertaining to Cancer	Carcinogen: A substance capable of causing cancer.
Cardi-	Pertaining to the heart	Cardiomyopathy: Chronic disease of the heart muscle.
Dys-	Bad or difficult	Dysphasia: A disruption causing a difficulty in speech.
Derm-	Pertaining to the skin	Dermatitis: Inflammation of the skin.
Faci-	Pertaining to the face	Facioplegic: Facial paralysis.
Gastro-	Pertaining to the stomach	Gastroenterology: Branch of medicine that studies the stomach.
Hema-	Pertaining to blood	Hemophilia: A bleeding disorder in which blood takes a long time to clot.
Hyper-	Something extreme or beyond normal	Hypertension: Abnormally high blood pressure.
Lipo-	Pertaining to fat	Liposuction: The surgical removal of excess fat.

- algia =	Painful	neuralgia	pain in a nerve
- emia =	blood condition	anemia	decrease in red blood cells
-itis =	inflammation	hepatitis	inflammation of the liver
-lysis=	destruction /separation	thrombolysis	destruction of a blood clot
-tomy =	incision	tracheotomy	incision (through the neck) into the trachea
-oma=	tumor	neuroma	tumor composed of nerve tissue
-rhesis=	rupture	arteriorrhesis	rupture of an artery
-penia =	decrease	erythropenia	decrease in red blood cells
-osis=	abnormal condition	cyanosis	bad oxygen tend to be blue
-derma=	skin	pyoderma	pus in the skin

1. Underline the word roots and match the columns. Listen and practice

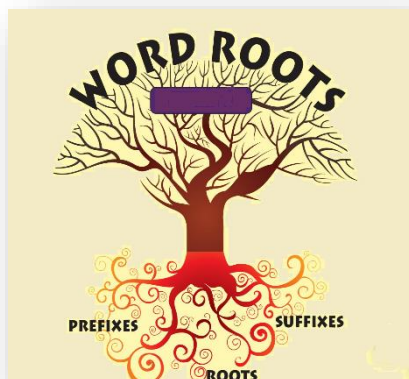


- | | |
|------------------|------------------------------------|
| ► 1. nephritis | () pertaining to muscle |
| ► 2. arthrodesis | () fixation of a joint |
| ► 3. dermatitis | () excision of the stomach |
| ► 4. dentist | () pertaining to the stomach |
| ► 5. gastrectomy | () specialist in teeth |
| ► 6. chondritis | () inflammation of cartilage |
| ► 7. hepatoma | () tumor of the liver |
| ► 8. muscular | () tumor of the bone |
| ► 9. gastric | () inflammation of the skin |
| ► 10. osteoma | () inflammation of the kidney |

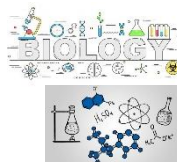
2. Underline the combining forms and match. Listen and practice



- | | |
|------------------|--------------------------|
| ► 11. nephr | ()bile vessel |
| ► 12. hepat/o | ()kidney |
| ► 13. Arthr | ()arthr bone, joint |
| ► 14. oste/o/ | ()liver |
| ► 15. cholangi/o | ()joint |



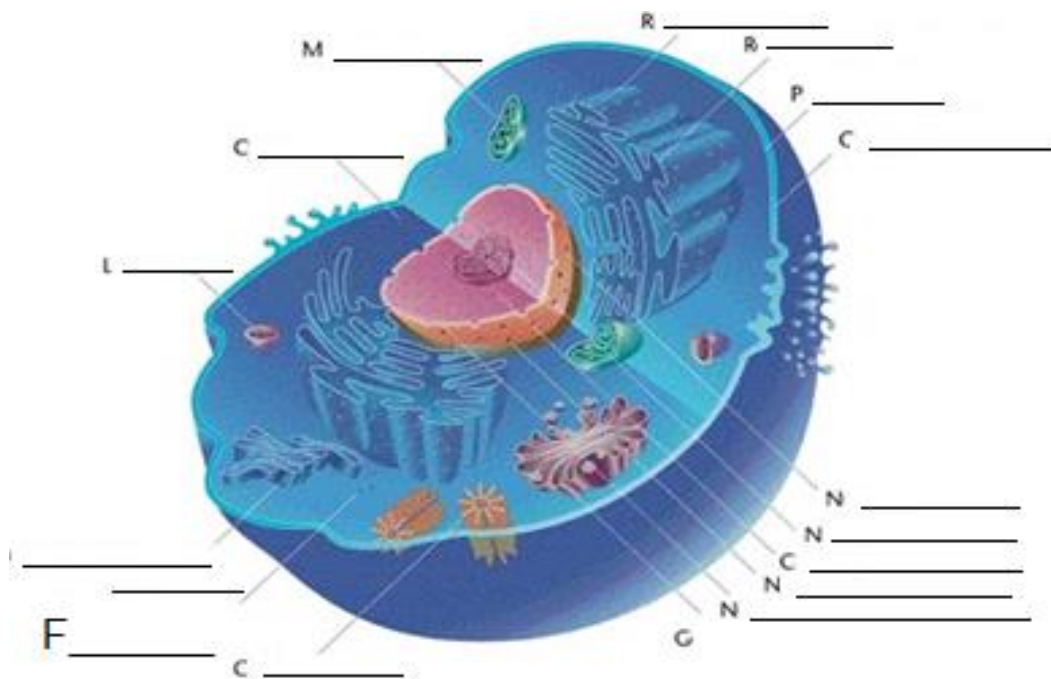
B) BIOLOGY/CHEMISTRY



Cell

1. In pairs, look at the cell image and complete the words.

What's inside a cell?



2. Listen the text and complete the missing words.

Cells are the smallest living parts of any living thing. Cells have the same needs as any organism and carry out many of the same activities. Cells contain smaller parts, each with a specialized job.

A cell is a basic 1. _____ of life. This simply means that a cell is the smallest unit of a living thing. While some 2. _____ are only made up of a single cell (bacteria, yeast etc) others are multicellular organisms made up of many cells.

While there is a clear difference between 3. _____ and multicellular organisms, some organisms may transition from unicellular organisms to multicellular organisms under certain 4. _____.

A good example of this is slime mold that tends to transition to a multicellular organism under stressful conditions. However, they are simply described as being partially multicellular. Therefore, the cell is the basic 5. _____ block of any given organism.

- Sperm Cells - Sperm cells serve to **6.**_____ to form the embryo.
- Red Blood Cells - Red cells contain a **7.**_____ molecule known as **8.**_____ and serve to transport **9.**_____ to all parts of the body and expel carbon **10.**_____ from the body.
- White Blood Cells - There are different types of white **11.**_____ cells that serve to protect the body from **12.**_____ - causing organisms. 1. Basophils 2. Lymphocytes 3. Neutrophils 4. Monocytes 5. Eosinophils
- Cardiomyocytes - These are **13.**_____ cells that make up the heart muscle.
- Nerve Cells (neurons) - These are cells of the nervous system that transmit information to and from different parts of the body (information is transmitted as **14.**- _____ signals)

3. Answer T for true or F for false.

1. A cell is the smallest unit of life ()
2. Some organisms are pluricellular ()
3. All the organisms can go from unicellular to multicellular ()
4. Red cells transport oxygen to all parts of the body ()
5. Some white cells protect the body from diseases ()

Blood

1. Read the text and match each word to its definition

Did you know that?

The circulatory system could not function without blood. Blood has many special parts that help keep the body healthy. There are two main kinds of cells in blood. Red blood cells carry oxygen. These cells are shaped like donuts without the hole. They contain a special protein called hemoglobin.

Hemoglobin holds on to oxygen. This allow the red

blood cells to carry oxigen through the bodyy.

White blood cells clean the blood. They also fight against germs and other invaders. White blood cells can change shape. This helps them squeeze between cell walls and reach all parts of the body.

Platelets are another important part of the blood. Platelets are rush to the injuy. There they stick to the edges of the cut. This forms a scab that stops the bleeding.

More than half of blood is made of a lliquid called plasma. Plasma is mostly water. It also contains sugar, salts, proteins, and other chemicals.

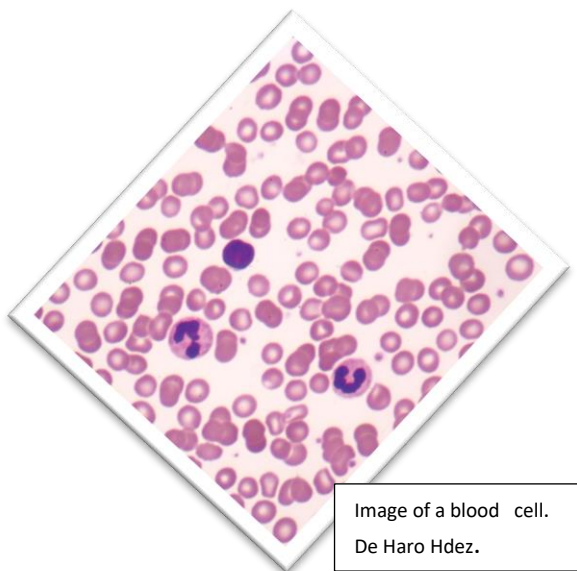
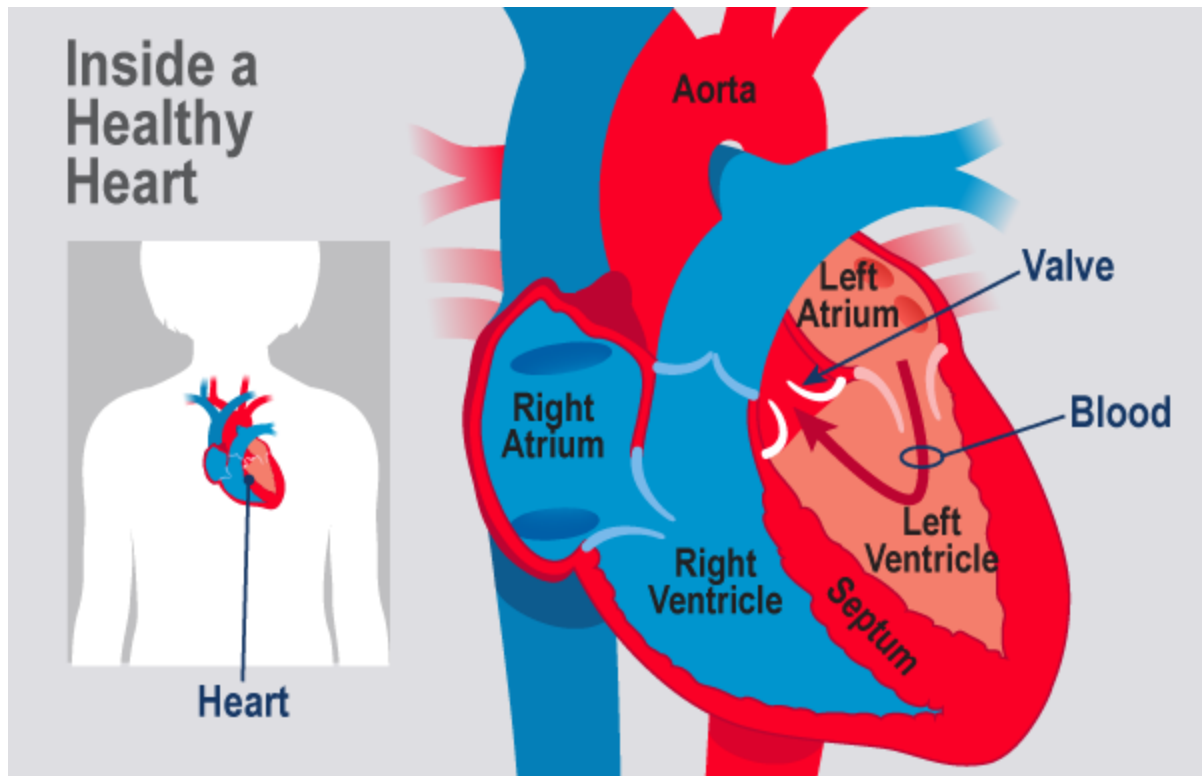


Image of a blood cell.
De Haro Hdez.

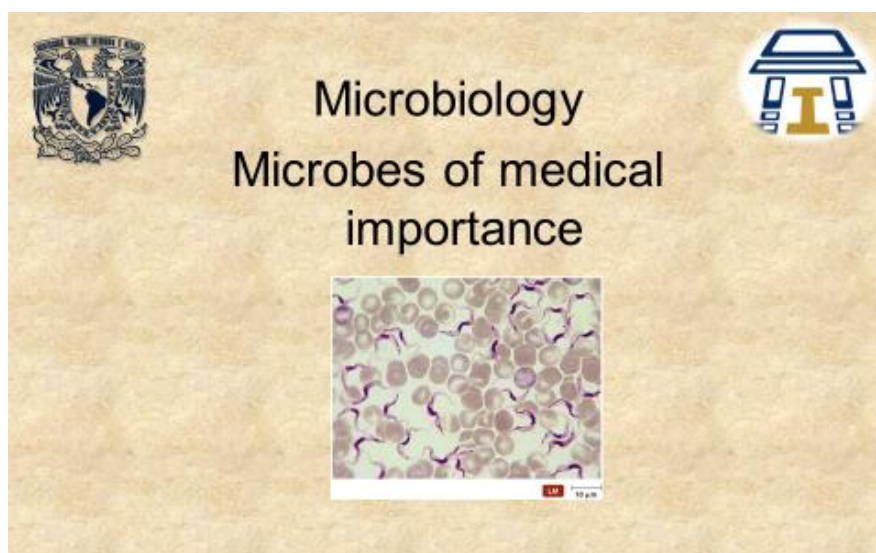
1. Match each word to its definition

- | | |
|----------------------|---------------------------------|
| 1. Hemoglobin | a sticky mass of blood |
| 2. Platelets | cells that fight invaders |
| 3. Germs | the liquid part of the blood |
| 4. Plasma | cells that carry oxygen |
| 5. Clot | invaders that cause disease |
| 6. Red blood cells | sticky cells that stop bleeding |
| 7. White blood cells | a protein that stick to oxygen |

2. Look at the Circulatory Sistem and complete the information.



3. Look at the presentation and share information with your classmates.



UNIDAD 3. SOCIAL SCIENCES. (J. Becerra)

Propósito:

Al finalizar la unidad el alumno será capaz de interactuar en forma oral y escrita, utilizando terminología básica en inglés de las ciencias sociales y reflexionando sobre algunos temas académicos relevantes de las carreras para incursionar de manera eficiente en sus estudios de licenciatura.

- Aprendizaje 1.

El alumno identifica y utiliza vocabulario y expresiones básicas en inglés de las ciencias sociales para obtener información general y específica de textos orales y escritos.

- Aprendizaje 2.

El alumno aplicará estrategias de lectura/escucha global y selectiva para obtener información general y específica de textos orales y escritos del área de las ciencias sociales.

- Aprendizaje 3.

El alumno utilizará vocabulario y expresiones para realizar búsqueda de información (investigación) de lenguaje y temas de las ciencias sociales.

- Aprendizaje 4.

El alumno será capaz de llevar a cabo tareas comunicativas para aplicar sus conocimientos de lengua y temas de las ciencias sociales.



1. Accounting.

See this video and take note of the words related to Accounting

<https://www.youtube.com/watch?v=jIMlcT4bfUw>

2. Questions to be discussed.

a) When you hear the word 'tax', what comes to mind? Name 20 ideas.

- What are eight positive and eight negative aspects of tax?
- Do you enjoy paying tax? Why or why not?
- Which country has the lowest and highest taxes?
- What are taxes spent on? What are the most and least useful expenses?
- Should you pay a tax on property or money left to you by others who have died?

b) What would be a better system? Would it benefit everyone?

- How will taxes be different in 75 years from now?
- Should the poor be allowed not to pay any tax?
- What should government do about companies who don't pay any tax?
- Is tax money always efficiently spent?
- What is the difference between tax evasion and tax reduction?
- How many different taxes can you name? (i.e. VAT, Income Tax and, etc.)

- What changes would you like to see in the tax system?

c) Answer in pairs.

1. When you hear the word 'tax', what comes to mind? Name 20 ideas.
2. What are eight positive and eight negative aspects of tax?
3. Do you enjoy paying tax? Why or why not?
4. Which country has the lowest and highest taxes?
5. What are taxes spent on? What are the most and least useful expenses?
6. Should you pay a tax on property or money left to you by others who have died?
7. What would be a better system? Would it benefit everyone?
8. How will taxes be different in 75 years from now?
9. Should the poor be allowed not to pay any tax?
10. What should government do about companies who don't pay any tax?
11. Is tax money always efficiently spent?
12. What is the difference between tax evasion and tax reduction?
13. How many different taxes can you name? (I.e. VAT, Income Tax and etc.)
14. What changes would you like to see in the tax system?

3. Work in pairs and circle the words given in the following Word Search Table. (Time: 15 min).

ACCOUNTING WORD SEARCH

Z	S	K	I	K	E	U	L	A	V	K	O	O	B	P	N	M	P	B	B	O	W	T	H
S	E	E	E	Y	N	X	J	Q	Z	P	K	Z	T	E	A	S	S	E	T	T	S	N	T
K	S	E	U	W	F	Y	G	D	E	M	R	E	A	M	L	R	I	C	G	G	D	E	Y
Q	N	S	N	R	R	T	C	U	L	U	P	K	O	E	E	V	U	L	N	J	L	M	I
I	E	A	E	E	B	I	Y	I	C	D	Y	G	F	R	T	M	J	A	O	M	E	T	A
C	P	H	V	C	T	L	B	D	T	N	F	S	H	C	R	X	Z	N	D	U	G	S	D
R	X	C	E	R	K	I	J	I	P	A	C	M	V	H	J	F	P	R	C	P	J	U	I
H	E	R	R	U	N	B	K	A	I	R	O	P	R	A	Z	D	O	U	N	K	E	J	N
C	Y	U	Q	O	G	A	Q	P	E	O	L	M	E	N	D	S	W	O	W	G	W	D	O
K	H	P	D	S	V	I	H	E	C	M	P	D	G	D	X	A	B	J	Y	T	D	A	I
P	A	F	F	A	A	L	L	R	E	E	G	H	D	I	C	O	Q	O	L	L	U	X	T
T	I	B	E	D	Z	K	S	P	R	M	E	K	E	S	C	R	E	D	I	T	Y	F	A
D	Y	V	G	O	J	L	Q	A	Z	Z	I	N	L	E	M	L	I	E	O	B	H	Q	R
O	N	O	I	T	A	I	C	E	R	P	E	D	H	K	P	H	J	X	Y	C	W	O	O
L	T	H	F	N	Y	B	R	A	E	R	A	H	S	C	B	P	O	S	T	I	N	G	P
B	V	K	K	H	O	W	J	H	L	J	M	I	D	P	I	X	Y	I	Z	A	V	X	R
M	P	P	N	V	P	A	D	O	I	C	S	S	O	A	Z	A	K	N	L	S	Q	E	O
L	Q	W	D	K	T	V	T	V	Y	P	A	W	Z	Y	D	C	W	V	D	S	X	J	C
Y	R	A	L	A	S	Y	T	C	T	A	L	Y	M	R	J	T	C	E	N	X	U	C	J
S	G	U	V	P	Q	D	E	A	I	O	E	R	I	O	E	N	B	N	C	F	G	O	D
W	X	Y	D	S	U	Y	C	S	U	I	S	P	L	L	P	N	J	T	I	Z	B	D	E
Y	L	E	J	A	C	L	E	H	Q	N	C	B	B	L	A	O	B	O	G	R	R	N	I
I	D	I	V	I	D	E	N	D	E	E	S	O	F	K	O	I	G	R	Y	J	G	O	L
J	Q	T	O	L	L	F	E	C	I	O	V	N	I	B	S	I	P	Y	S	Q	A	W	G

ADJUSTMENT

ASSET

BOOK VALUE

CASH

CORPORATION

CREDIT

DEBIT

DEPRECIATION

DIVIDEND

EQUITY

EXPENSES

INVENTORY

INVOICE

JOURNAL

LEDGER

LIABILITY

MEMORANDUM

MERCHANDISE

PAYROLL

POSTING

PREPAID

PURCHASE

RECEIPT

REVENUE

SALARY

SALES

SHARE

SOURCE

As

soon as you finish, discuss the meaning with your partners and your teacher. (Time: 10 min).

Activity 3: Match the columns between the concepts and their definitions

1. Adjustment	A small alteration or movement made to achieve a desired fit, appearance, or result.	()
2. Corporation	A company or group of people authorized to act as a single entity (legally a person) and recognized as such in law	()
3. Dividend	A list of goods sent or services provided, with a statement of the sum due for these; a bill.	()
4. Invoice	A written message in business or diplomacy.	()
5. Memorandum	pay for in advance.	()
6. Prepaid	A fixed regular payment, typically paid on a monthly or biweekly basis	()
7. Salary	the ability of a customer to obtain goods or services before payment	()
8. Credit	a list of goods sent or services provided	()
9. Asset	a useful or valuable thing, person, or quality.	()
10. Equity	The quality of being fair and impartial.	()
11. Journal	A daily record of news and events of a personal nature; a diary.	()
12. Merchandise	Goods to be bought and sold	()
13. Purchase	The action of buying something.	()
14. Sales	The exchange of a commodity for money; the action of selling something.	()
15. Book value	The total amount of stockholders' equity appearing on a corporation's balance sheet.	()
16. Debit	An entry recording an amount owed, listed on the left-hand side or column of an account.	()
17. Expenses	The money spent on something.	()
18. Ledger	The total amount of wages and salaries paid by a company to its employees.	()
19. Payroll	A book or other collection of financial accounts of a particular type.	()
20. Receipt	A recipe.	()
21. Share	A part or portion of a larger amount which is divided among a number of people, or to which a number of people contribute	()
22. Cash	Money in coins or notes, as distinct from checks, money orders, or credit.	()
23. Depreciation	A reduction in the value of an asset with the passage of time	()
24. Inventory	A complete list of items such as property, goods in stock, or the contents of a building.	()
25. Liability	The state of being responsible for something, especially by law.	()
26. Posting	An appointment to a job, especially one abroad or in the armed forces.	()
27. Revenue	Income, especially when of a company or organization and of a substantial nature.	()
28. Source	A place, person, or thing from which something comes or can be obtained.	()

Look at the following sentences and choose the correct answer. Your teacher will help you by correcting possible mistakes

1. They had to hire a (n) ____ because Jane was not qualified to produce all the documents for the audit in June.

A. auditor B. accountant C. bookkeeper

2./3. Her ____ (2.) salary at her new workplace was higher than her ____ (3.) salary in the old one, so she was much happier here.

2. A. net B. gross

3. A. net B. gross

4./5./6. The basic accounting equation is: ____ (4.) = ____ (5.) + ____ (6.)

4. A. assets B. liabilities C. owner's equity

5. A. liabilities B. owner's equity C. assets

6. A. owner's equity B. assets C. liabilities

7./8. In order to see what a company's ____ (7.) is/are, you need to have a look at the ____ (8.) and subtract all the expenses of doing business.

7. A. profit B. capital C. revenues

8. A. revenues B. profit C. liabilities

9. The ____ is an important accounting document showing a company's assets, liabilities and the owner's equity.

A. cash flow statement B. balance sheet C. income statement

10./11./12. In ____ (10.), you need to record ____ (11.) on the left side and ____ (12.) on the right side.

10. A. double entry bookkeeping B. single entry bookkeeping

11. A. debits B. credits

12. A. credits B. debits

13. He was hoping to be able to raise enough ____ to set up his own business in five years' time.

A. assets B. capital C. equity

14. As she was calculating the company's liabilities, she realized she forgot to include the ____.

A. accounts payable B. accounts receivable

15. They wanted to resort to ____ in order to convince investors of their company's high profitability, but then they realized that the auditors that worked for the investors would see right through it.

A. bookkeeping B. accounting C. creative accounting

16. He had been trying to pass his exams in order to become a (n) ____, but in the end he gave up and decided to charge a higher fee for his bookkeeping services in order to make ends meet.

A. chartered accountant B. shareholder C. investor

17. The auditor was looking at the financial statements that the company presented him when he realized he was actually interested in a different _____. He then had to ask for a different set of financial statements.

A. income statement B. payroll C. accounting period

18. She was considering giving up working as an accountant for that company and becoming a self-employed freelancer because the _____ she had to pay was lower. She also had the expertise to file her own tax return, which was an additional advantage.

A. income tax B. Value Added Tax

19. The idea of becoming a shareholder seemed really bad now that the _____ was lower than in any other previous year.

A. share price B. return on investment

20. Their _____ was too high during the past few months, so they have been thinking of either not giving their employees any bonuses this year or investing less in advertising.

A. overhead B. appreciation C. depreciation

Unidad IV. Humanidades y Artes. (E. Montiel)

Propósito

Al finalizar el alumno será capaz de interactuar en forma oral y escrita para expresar opiniones, preferencias y reflexiones, orales y escritas, para poder tomar decisiones vocacionales más sólidas en el área de las Humanidades y de las Artes.

- Aprendizajes 1.

Identifica y utiliza vocabulario y expresiones básicas para hablar de las humanidades y las artes.

(Actividades 1-a, 2-a)

- Aprendizajes 2.

El alumno aplicará estrategias de lectura/escucha global y selectiva para obtener información general y específica de textos, orales y escritos, sobre las humanidades y las artes.

(Actividades 2-b, 2-c)

- Aprendizajes 3.

El alumno utilizará expresiones para comunicar gustos y preferencias profesionales, y para referirse a información sobre profesionistas de diversas carreras.

(Actividades 3, 4-a)

- Aprendizajes 4.

El alumno será capaz de intercambiar opiniones sobre decisiones personales y profesionales reales y ficticias.

(Actividades 5, 6)



1. Presentation.

We have all heard the tired jokes about majoring in “How to Become a Barista.” But without the arts and humanities, we would have no films, music, museums, or books! And who would want that?

The art and humanities cover an incredibly broad spectrum of interests, from foreign languages to history to actual art. This means that students who choose to study this path have a wealth of different paths and opportunities that they can choose to pursue!

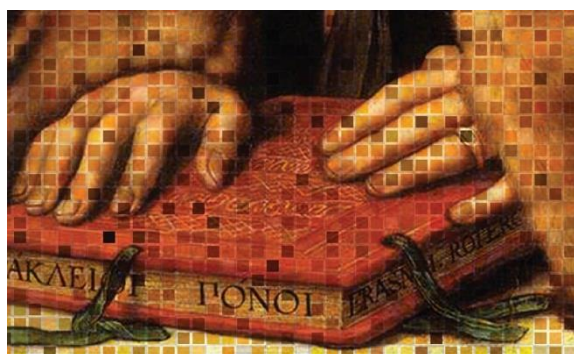
- a) **Think of the disciplines that you think belong to the Arts and Humanities. Work with a partner and brainstorm as many as you can on your notebook.**

2. Read the following text.

- a) **Highlight the names of the disciplines that belong to the Arts and Humanities Field.**

What are Arts and Humanities?

Arts and humanities are considered as two of the oldest fields of knowledge available to man. The difference between the two is often seen with ambiguity. While art is seen as a more all-inclusive field, humanities, on the other hand, takes into consideration a diverse and oftentimes unrelated set of disciplines from literature to political history.



Though the definition of the term "art" is still being debated by scholars and art enthusiasts, a widely accepted meaning can be extracted when taking into consideration the similarities behind countless art forms available nowadays. Various schools teach it as the result of a process in which an individual assembles and organizes items in such a way that it provokes the emotions and wisdom of those who view it. It can also mean a number of things. While it can be considered as the finished product of the artist, art can still be referred to as the skill of crafting the artwork itself. Some school of thoughts even defines art as the feeling of arousal whenever a specific art is

being viewed. It is already acknowledged that art can be one of the most controversial aspects of life due to its vague exactness. While the term is highly debated as of now, art is ironically found everywhere.

As long as humans can think freely and become affected by various objects surrounding them, there is no denying that art will never cease to exist. It is, in fact, present even during the prehistoric era, as evident by the cavemen drawings seen on the walls of the caves dating back to forty thousand years ago. In a more recent discovery, a set of small drilled snail shells have been discovered in a South African cave about seventy-five thousand years old- proof that art had existed longer than expected.



Art as a term dates back to the thirteenth century. From the Indo-European root "ar," which means to "assemble or join," it has since encompassed a number of forms such as literature, film, music, sculpture, painting, and, more recently, photography.



Humanities focus on the more man-centered disciplines compared to art. These are academic fields in which the human condition is prioritized rather than their works. Comprising the experiences of man seen in a more personal, cultural and social context, humanities emphasize a more analytical and critical method of study as opposed to art's emotionally-biased perspective. As mentioned, the disciplines can be as broad as possible. These include language, history, literature, religion, philosophy, theater, music, and even the various social sciences which include sociology, anthropology, archaeology, politics, technological

studies, media and communication studies and much more.

The study of humanities dates back to Ancient Greece when its rulers made it basic education for all the citizens. Even the Romans have participated at one point or another when they included in their curriculum arithmetic, music, astronomy and logic, topics which, at the present, are considered disciplines of humanities. However, the views on these disciplines back then were more personal and routine. During the advent of the Renaissance period, these fields have been taken more seriously, turning them into subjects of study rather than practice. It is in this era where literature, painting and history were given the utmost importance.



Regardless of their rich history and achievements, the query still remains. What is arts and humanities? Despite that question which ominously hovers within the various academes around the world, there is no denying that such definitive mystery entails man's never-ending quests for intellectual improvement. Although two separate fields of study, art and humanities have long been a part of man's life whether one likes it or not.

Adapted from a text taken from: *TeAchnology: The Online Teacher Resource* http://www.teach-nology.com/teachers/subject_matter/arts/

b) Language. Look for words in the text with these meanings:

Example:

(par. 1)

- *at hand*
- *uncertainty*

available
ambiguity

(par. 6)

- *despite the fact that*

- *monarchs, dictators*

- _____

- *arrival*

- *innumerable*

- *the highest*

- _____

- *lucidity*

- _____

(par. 3)

- *to make a hole*

(par. 7)

- *question*

(par. 4)

- *included*

- *Menacingly*

- *containing*

- *oscillates between*

- *requires*

- c) Read the questions below and find the answers. Do not write them, just understand.**
- d) In pairs, ask and answer the questions and then write the answers using paraphrasing (own words). Check with your teacher.**

1) What's the main difference between the Arts and Humanities?

2) What is art?

3) Why is art so difficult to define?

4) How do we know that art has been around for at least 75 000?

5) What are Humanities focused on?

6) How long does Humanities date back?

3. Find the 27 words about knowledge fields of the arts and humanities. Use color pencils.

MAVAPZJMPZIGENDERANDSEXUALITYV
XJYRRCBFPHLMRZGSTUDIESNTGMHDLK
MCNLTNZUCLASSICBSQOHEYEFDMJBKYU
SXPTCLHANTIQUNITYQIRVNVAXFWAILN
FCVKASIIWICKDEHPGNGEMQTXWSIFRZ
IHUNPBI PSTLMODERNLANGUAGESGIIYQ
LNB LDRDNMTGUGTAVTROJLMNFXNFNMI
MRPWPWJDDGOOYDTFVXFEIAFRITGEOM
STUQETT VWIURUOEMUSIC TJNTJWVAAD
TUNCBXUOVRXFYORJAXUG EYNGEBFRVA
UUCUCIQRVVIBRG NPRFKRITMUTETWN
DYQLYAXNELETCJEKJQOQAKHHGA ESEC
IOJTADGDQAPYIVAQVOXP TCXNEVGQVE
EUPUMSVLSWNNZNISFJSYUCLNIANEPJ
SKRRDVSXMHXTFTGSULAVRSNTPOTMUT
JRKAQFTIBZEBHHNMQIEXEGAZIZOEDM
GUALET DVCNSQPRDEFDLHPRQGJHOIRK
RCZSEGEGRBEDDEKAIGVWAGIQPKZACO
ARATHISTORYNLFRPRWXPFLMFNFBNON
PEOUHCHCTAAVXPFFOCMXEBYT S OFTWT
HJXDLKAIAPAQWTZYOOHRACNIQKQHCF
ICHIANPMWJIJOSNGCROAFASHIONRPE
CKWEVDIGOGMQSTNCGSMT EHBQHTWOUX
DGNSPHILOSOPHYDFXLCIYO EZHWIPTI
ETINTERIORDESIGNPSHFNE LKEZH OXW
SBIWRYHTTAAPHYRVHQORKGSOIADLXR
INOVISUALARTSHNRIZTSLKAHGPCOPL
GZSMVDUUJMPASARCHITECTUREYJGZA
NDHDTURAEVNZFJANIMATIONZTNSYHS
ZFZGHAWLZRDFDHRSPJZNJXGYHSAENS

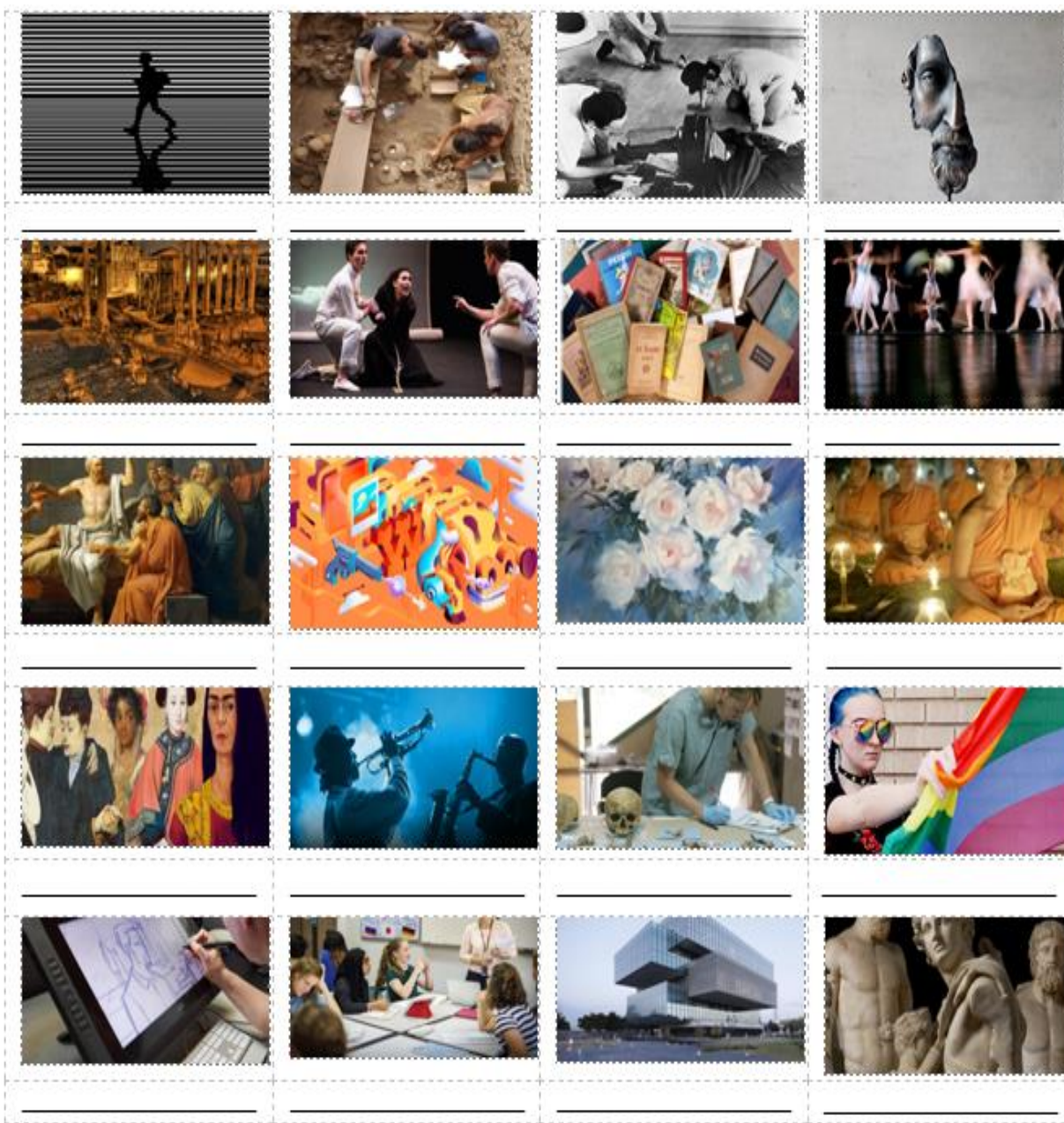
- | | | | |
|---------------------|----------------|------------------------|--------------------|
| • Classic Antiquity | • Film studies | • Comparative religion | • Cultural studies |
| • Sign Language | • Animation | • Painting | • Dance |
| • Theater | • Music | • Sculpture | • Fashion |
| • Interior Design | • Fine arts | • Graphic design | • Visual Arts |
| • Architecture | • Archaeology | • Art History | • Philosophy |

- Performing Arts
- History
- Writing
- Literature
- Modern Languages
- Anthropology
- Gender and Sexuality Studies

Made with <https://tools.atozteacherstuff.com/word-search-maker/wordsearch.php>

4. Look at the pictures. These are knowledge fields from the Arts and the Humanities.
- a) On the lines, name as many as you can. Write A for Arts, H for Humanities and A-H for both. Some of them can be classified in both fields.

Fields of the Arts and the Humanities



5. The Arts and Humanities in cinematography. Analysis and reflection of the movie:
-“Midnight in Paris” (Woodie Allen, 2011).

a) Identify the context: setting, time, and characters

b) Fill in the following chart: write the names of the famous characters, their discipline/career, and the name of a piece of art.

Name	Nationality	Discipline-career	Piece of art

c) Questions.

1) Who is Gil, what is his job and how does he feel in this moment?

2) What do Gil and his fiancée do when they arrive to Paris? What family and professional expectations do they have?

3) Who does Gil meet in the different trips back to the 20's in Paris City?

4) Who are Adriana and Inez and what's the relationship they have with Gil?

5) What changes in everyday life (present) happen to Gil and Inez?

6) What was more important for Gil and Inés, love or profession?

7) What would you have done if you had been in their place?

8) How important is to consider personal life expectations when choosing and following careers?

6. Task

a) Interview report with a life artist.

b) A poster and presentation famous person profile: Literate person, philosopher, visual artist, musician, architect, etc. that you have been influenced by.

c) Personal life project: personal and professional topics. (1-2 pages)

d) Evaluación

e) Los alumnos, de manera individual, crearán un poster sobre algún personaje famoso (literato, filósofo, artista visual, músico, arquitecto, etc.) que haya sido una influencia para ellos. Montarán una pequeña galería con sus posters (deberán incluir una pequeña ficha de resumen explicando su obra) y, posteriormente, los explicarán de manera oral añadiendo datos de cómo esta persona ha influido en su toma de decisiones sobre la elección de una carrera profesional. Los demás alumnos hacen una ronda de preguntas al final de todas las presentaciones

Rúbrica					Evaluación
	Excelente	Bueno	Regular	Nulo	
Vocabulario	3	2	1	0	
Utiliza vocabulario y expresiones relacionadas con las humanidades y las artes.					
Expresión					
Comunica sus gustos y preferencias personales y profesionales..					
Gramática					
Domina las estructuras gramaticales básicas: Presente Simple y Continuo, Pasado Simple y Continuo, Futuro Simple e Idiomático, Verbos Modales (may, might, must, should)					
Interacción					
Hace y contesta preguntas a sus compañeros para obtener información, o compartir sus opiniones e intercambiar ideas.					
Fluidez					

Utiliza expresiones breves, hay evidencia de pausas, dudas y reformulación.					
TOTAL	15 pts				

COMPLEMENTARY ACTIVITIES:**1. Film society:**

- “Luther” (Eric Till, 2004).
- “Oscar Wild” (1997, Brian Gilbert)
- “The Agony and the ecstasy”- Miguel Angel B. (Carol Reed, 1967)
- “The name of the rose” (Jean-Jacques Arnauld, 1986)

2. Invite an artist / Visit an artist/philosopher/writer, etc.

- 1) What are the challenges that you had to go through to reach your academic and professional goals?
- 2)

Self-Evaluation**After the course I can**

1. Identify and use basic vocabulary from the Arts and Humanities. ★★★★★
2. Guess the meaning of words using the context ★★★★★
3. Focus attention on listening to conversations to get the main idea of the event. ★★★★★
4. Get detailed information from texts and audiovisuals (videos, people, etc. ★★★★★
5. Exchange information of other people’s professions, nationalities, jobs, etc. ★★★★★
6. Exchange information about my personal and professional decisions and others. ★★★★★

Referencias

Secretaría Estudiantil DGCCH. (s.f). *Programa de Fortalecimiento a la Calidad del Egreso (PROFOCE)*, documento interno de trabajo.

Tomlinson, B. (2003). *Developing Materials for Language Teaching*. London: Continuum.

Universidad Nacional Autónoma de México. Dirección General de Orientación y Servicios Educativos. (2010). *Guía de carreras UNAM 2009-2010* (23ªed.). Ciudad de México.

Academic English. (2019). Academic English at CCH-AZC..
<https://www.facebook.com/groups/817272808770455/>

A Dictionary of Accounting. (2010). Oxford Reference.
<https://www.oxfordreference.com/view/10.1093/acref/9780199563050.001.0001/acref-9780199563050>

A biography of Albert Einstein. (2010). Ducksters.
https://www.ducksters.com/biography/albert_einstein.php

Barriers to critical thinking. (2019). Critical thinking. <https://www.academic-englishuk.com/critical-thinking>

Scientists, and inventors. (2019).
https://www.ducksters.com/games/crossword_puzzle/scientists_inventors_print.php

Stated clearly. (2019). what is an atom.
<https://www.youtube.com/watch?v=LhveTGblGHY>

The online teacher resource. (2019). The online teacher resource.
http://www.teach-nology.com/teachers/subject_matter/arts/

Video vocab. (2019). Business English.
<https://www.youtube.com/watch?v=iIMlcT4bfUw>

Exámenes para el diagnóstico de conocimientos. Resultados de los alumnos que ingresan al nivel licenciatura. (2018). <http://www.codeic.unam.mx/wp-content/uploads/2018/05/Publicaci%C3%B3n-generaci%C3%B3n-2018.pdf>