



Colegio "Villa de las Flores" S.C.
"Ofreciendo una formación integral para toda la vida"
www.cvf.edu.mx



RG-SEC-02-1
VERSIÓN 6



PLAN DE CLASE/NOTA TÉCNICA NIVEL: Secundaria

NOMBRE DEL PROFESOR: Eduardo Serrano Hernández.

GRADO: 1°

GRUPO: A y B

ASIGNATURA: Ciencias I (Biología).

TRIMESTRE: Primero.

SEMANA: 10 al 14 de octubre del 2022.

TIEMPO: 40 minutos.

TEMA: Charles Darwin con la evolución y Adaptabilidad y supervivencia.

PROPÓSITOS: Científico Tecnológico.

COMPETENCIA: Elabora un diagrama propio como el visto en clase para la construcción de una red neuronal.

APRENDIZAJE ESPERADO: Reconoce que el conocimiento de los seres vivos se actualiza con base en las explicaciones de Darwin acerca del cambio de los seres vivos en el tiempo (relación entre el medioambiente, las características adaptativas y la supervivencia).

CONTENIDOS: Árbol y origen de la vida.

RECURSOS: Nota técnica con recursos gráficos y esquemas.

MATERIALES: Cuaderno, dispositivo electrónico y plataforma CVF.

EVALUACIÓN:

- **ACTITUDINAL:** Cumple con asistencia y participación.
- **CONCEPTUAL:** Completa sus apuntes y actividades de refuerzo.
- **PROCEDIMENTAL:** Maneja la información conceptual inicial.

IMPLEMENTACIÓN DE ACCIONES DEL P.E.M.C.: En proceso de autorización.

INICIO:

Árbol de la vida y el origen de la vida

Phylogenetic tree

Here is a visual representation to explain how all living beings are related. Unlike genealogical trees, in which information supplied by families is used, phylogenetic trees use information from fossils as well as that generated through the structural and molecular studies of organisms. The construction of phylogenetic trees takes into account the theory of evolution, which indicates that organisms are descendants of a common ancestor.



Bacteria

Unicellular organisms that live on surfaces in colonies. Generally they have an cellular wall composed of peptidoglycans, and many bacteria have cilia. It is believed that they existed as long as three billion years ago.



COCCI
The pneumococci are an example.



BACILLUS
Escherichia coli has this form.



SPIRILLUM
In the form of a helix or spiral



VIBRIO
Found in water

Eukaryota

This group consists of species that have a true nucleus in their cellular structure. It includes unicellular and multicellular organisms, which are formed by specialized cells that do not survive independently.

Protista

A eukaryotic group. It includes the species that cannot be classified in any other group. There are, therefore, many differences among protista species, such as algae and the amoeba.

10,000,000
SPECIES OF ANIMALS ARE CALCULATED TO INHABIT THE EARTH IN THEIR HISTORY ENVIRONMENTS.

Animals

Multicellular and heterotrophic. Two of their principal characteristics are their mobility and their internal organ systems. Animals reproduce sexually, and their metabolism is aerobic.

Fungi

Cellular heterotrophic organisms with cell walls thickened with chitin. They carry out digestion externally and secrete enzymes to reduce the resulting nutrients.



Basidiomycetes
include the typical capped mushrooms.



Zygomycetes
reproduce through zygospores.



Deuteromycetes
Asexual reproduction

5,000
SPECIES OF MAMMALS ARE INCLUDED IN THREE GROUPS.

Archaea

These organisms are unicellular and microscopic. The majority are anaerobic and live in extreme environments. Most are half of them give off methane in their metabolic process. There are more than 200 known species.

Plants

Multicellular autotrophic organisms. They have cells with a nucleus and cell walls that are composed of specialized tissues. They carry out photosynthesis by means of chloroplasts.



EUMYKARHOTIA
Halo bacterium sulfobacterium

KLARACHAROTIA
The most primitive of the archaea

CRENARCHAEOTA
Live in environments with high temperatures.

NOT VASCULAR
No internal vessel system

NEELESS
They are small plants with simple tissues.

VASCULAR
Internal vessel system

WITH SEED
Some have exposed seed and some have flower and fruit.

ANGIOSPERM
With flower and fruit. More than 200,000 species form this group.

Gymnosperms
With naked seeds. Cycadophytes were examples.

INVERTEBRATES
They lack a backbone.

NEELED
They lack a backbone.

VERTEBRATES
Have a vertebral column, a skull that protects the brain, and a skeleton.

NEELED
They lack a backbone.

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Relationships

The scientific evidence supports the theory that life on Earth has evolved and that all species share common ancestors. However, there are no conclusive facts about the origin of life. It is known that the first life forms must have been prokaryotic, or unicellular beings, whose genetic information is found anywhere inside their cell walls. From this point of view, the archaea are prokaryotes, as are bacteria. For this reason, they were once considered to be in the same kingdom of living things, but certain characteristics of genetic transmission places them closer to the eukaryotes.

Amniotes

The evolution of this feature allowed the tetrapods to conquer land and to adapt to its distinct environments. In amniote species the embryo is protected in a so-called structure called the amniotic egg. Among mammals, only monotremes continue to be oviparous; however, in the placental category, to which humans belong, the placenta is a modified egg. Its membranes have transformed, but the embryo is still surrounded by an amniotic fluid with amniotic fluid.

Cladistics

This classification technique is based on the evolutionary relationship of species coming from similar derived characteristics and supposes a common ancestor for all living species. The results are used to form a diagram in which these characteristics are shown as branching points that have occurred at the same time. The diagram places the species into clades, or groups. Although the diagram is based on evolution, its expression is in present-day characteristics and the possible order in which they developed. Cladistics is an important analytical system, and it is the basis for present-day biological study. It arises from a complex variety of facts: DNA sequences, morphology, and biochemical knowledge. The cladogram, commonly called the tree of life, was introduced in the 1970s by the German evolutionary biologist Willi Hennig.

Humans

Humans belong to the class Mammalia and specifically share the trait of the placenta, or reflexion, which means that the embryo develops completely inside the mother and gets its nutrients from the placenta. After birth, it depends on the mother, who provides the nutritional cells in the first phase of development. Humans form part of the order Primates, one of the 25 orders in which mammals are divided. Within this order, characteristics are shared with monkeys and apes. The closest relatives to human beings are the great apes.

DESARROLLO Y EXPLICACIÓN DOCENTE:

Un árbol filogenético es un diagrama que representa las relaciones evolutivas entre organismos. Los árboles filogenéticos son hipótesis, no hechos definitivos.

El patrón de ramificación en un árbol filogenético refleja cómo las especies u otros grupos evolucionaron a partir de una serie de ancestros comunes.

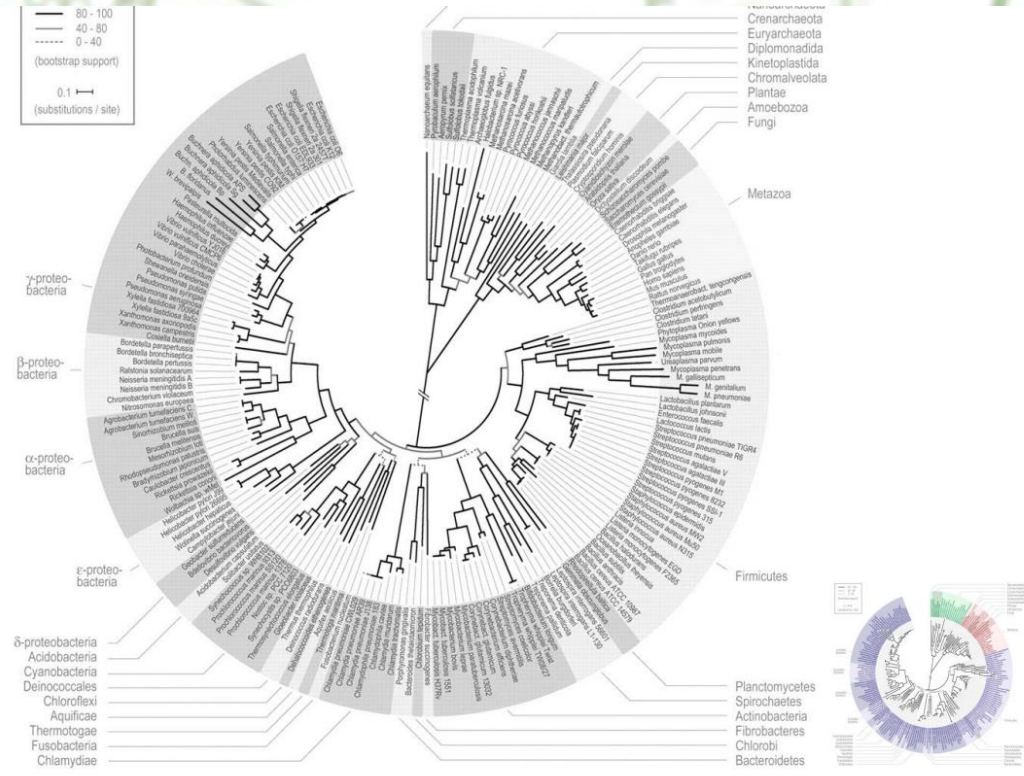
En los árboles, dos especies están más relacionadas si tienen un ancestro común más reciente y menos relacionadas si tienen un ancestro común menos reciente.

Los árboles filogenéticos pueden dibujarse en varios estilos equivalentes. Rotar un árbol alrededor de sus puntos de ramificación no cambia la información que contiene.

Ah continuación se observara el siguiente video para comprender aun mejor el origen de la vida.

<https://www.youtube.com/watch?v=5A0IBsbSOSI>





CIERRE: Actividad: Realizar el un apunte de clase con las ideas principales y colorea el ANEXO 1. Árbol de la vida como se observa en las anteriores imágenes.

EVALUACIÓN: Heteroevaluación: El alumno debe presentar su trabajo de clase para su evaluación.

TAREA: No hay.