



**COLEGIO NACIONES UNIDAS I.E.D.
WORKSHOP THIRD TERM
BIOLOGY 9th**

**This workshop must be copied and developed in the corresponding notebook
DELIVERY DATE NOVEMBER 8th**

NAME _____ GRADE _____ DATE _____

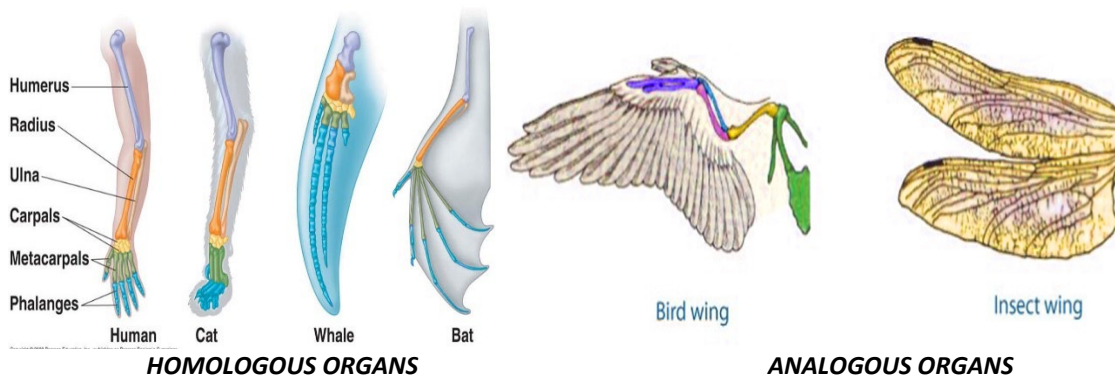
1. What, stated the prebiotic theory propose by Alexander Oparin?
2. What explains the Endosymbiotic theory?

READ THE FOLLOWING 6 STATEMENTS THAT TRY TO EXPLAIN THE EVOLUTION OF LONG-NECK GIRAFFE - THE EVENTS ARE IN DISORDER AND MIX THE POSTULATES OF LAMARCK AND DARWIN -

- A. *Short-necked giraffe population*
- B. *There are some giraffes with slightly longer necks.*
- C. *When trying to reach food from the trees, the neck lengthens*
- D. *That is why today Giraffes have long necks*
- E. *The elongation of the neck is inherited to the descendants*
- F. *Those with long necks feed and reproduce more successfully*

3. What is the sequence of events shown in Darwin's theory of the evolution of the long neck of giraffes?
4. What is the sequence of events shown in Lamarck's theory of the evolution of the long neck of giraffe?

LOOK THE FOLLOWING IMAGES AND ANSWER THE QUESTIONS 5, 6 and 7

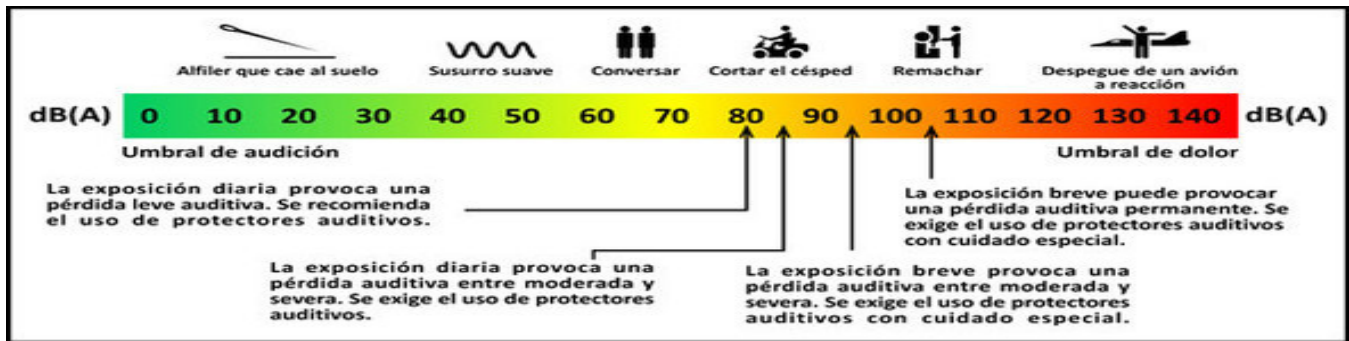


5. What is the structural difference between homologous and analogous organs?

6. In organisms that lack complex sensory systems, such as plants, fungi, unicellular organisms and some invertebrates, responses can be of three types: Tropisms, Tactisms and Nastias. Tropisms occur in plants and manifest themselves in the direction of growth or inclination towards certain stimuli (positive tropism) or in the opposite direction to others (negative tropism). the growth of stems towards the light source and of roots towards the interior of the soil, are examples of?

7. The mixed glands fulfill an endocrine function, because they release hormones, and an exocrine function because they produce substances that contribute to different processes in the body. In this regard, one of the following examples is NOT true, find it and justify your answer
 - ✓ The pancreas is a mixed gland because it produces pancreatic juice and the hormone insulin.
 - ✓ The pituitary gland is a mixed gland because it produces the hormones prolactin and somatotropin
 - ✓ The ovaries are mixed glands because they release eggs and progesterone
 - ✓ The testicles are mixed glands because they produce sperm and the hormone testosterone.

8. It is proven that at the moment of receiving a maximum penalty, a footballer faces great anxiety, maximum tension and anguish, what is the hormone that his body produces and releases in large quantities at those moments?

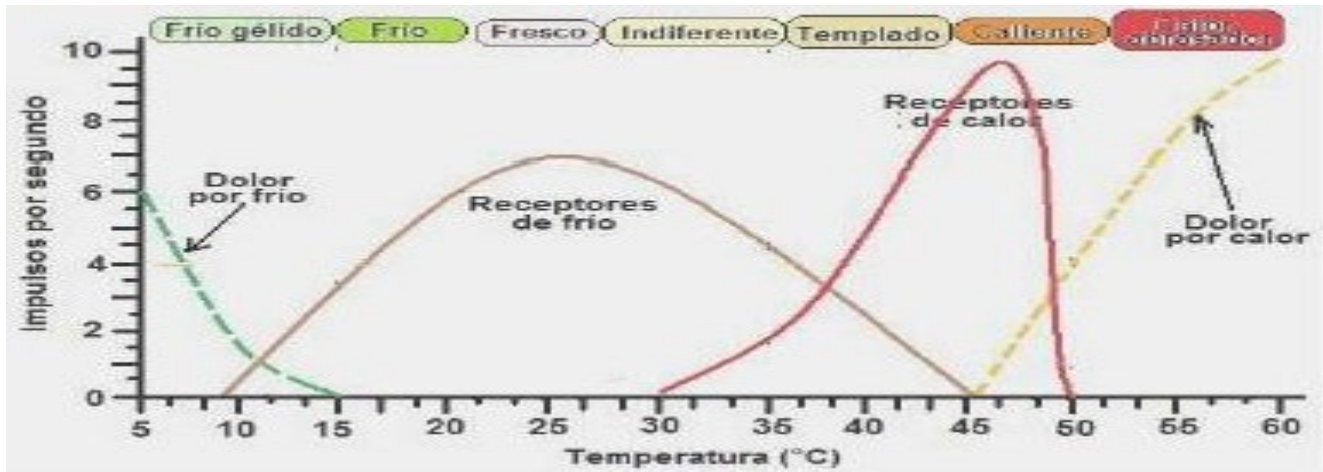


The diagram above shows the tolerable range without impairment and the impact on the ear of different sound levels and exposure times. Look at the technical data sheet of a hearing aid and, based on this information, answer the question.



Especificaciones Técnicas	
Tipo	Cerrado, dinámico
Audífonos	Vincha
Unidad de controlador	30 mm
Sensibilidad con la unidad encendida	100 dB/mW
Impedancia	24Ω a 1 kHz
Imán (es)	Neodimio
Respuesta en frecuencia	10 - 24.000 Hz
Capacidad de manejo de potencia	1000 mW (IEC)
Cable	1.2 m, tipo Y, plano
Control de volumen	no
Conector	Mini-conector estéreo en forma de L
Peso	135 gr
Colores	Verde

9. These hearing aids, because they have high sound power, what it could cause?



10. A person is going to climb the Nevado del Ruiz, whose average temperature is 10°C. Which receptors act at that temperature and why?
11. The temperature in certain Colombian towns is so high that it can cause dehydration in people with kidney problems; one of these towns is La Dorada (Caldas) where the temperature can reach 46 °C. From the above and using the graph as a reference, what we can deduce?
12. What receptors allow to identify the taste and smell of a substance?