

## **DNL: Work around the evolution of biodiversity: mass extinctions and diversification periods.**

Vous avez différentes vidéos à visualiser, n'oubliez pas que vous pouvez mettre les sous titres sur youtube. Attention cependant, ils sont auto-généré, donc parfois il peut y avoir des erreurs.

### **Fossilisation: a rare and slow process**

Watch the video

[https://www.youtube.com/watch?v=bRuSmxJo\\_iA](https://www.youtube.com/watch?v=bRuSmxJo_iA)

Faire un résumé en français de ce que vous avez compris sur les fossiles et leur formation.

### **The Cambrian explosion is an important step in the life of Earth.**

<https://www.youtube.com/watch?v=qNtQwUO9ff8>

<https://www.youtube.com/watch?v=3aLd8NN0YtY>

+ document ANNEXE

Explain what the Cambrian explosion is and how we know about the existence of this episode. Shortly describe one iconic species of this period (that existed only during this period)

### **The life on Earth, a series of extinctions and diversification periods.**

<http://www.bbc.com/earth/bspoke/story/20150123-earths-25-biggest-turning-points/>

Parcourir cette frise chronologique et relever les étapes importantes de l'évolution de la biodiversité (extinctions et apparitions de nouvelles espèces)

Facultatif :

Pour ceux qui ont le temps et que ça intéresse, un documentaire sur la planète terre et l'évolution de la vie :

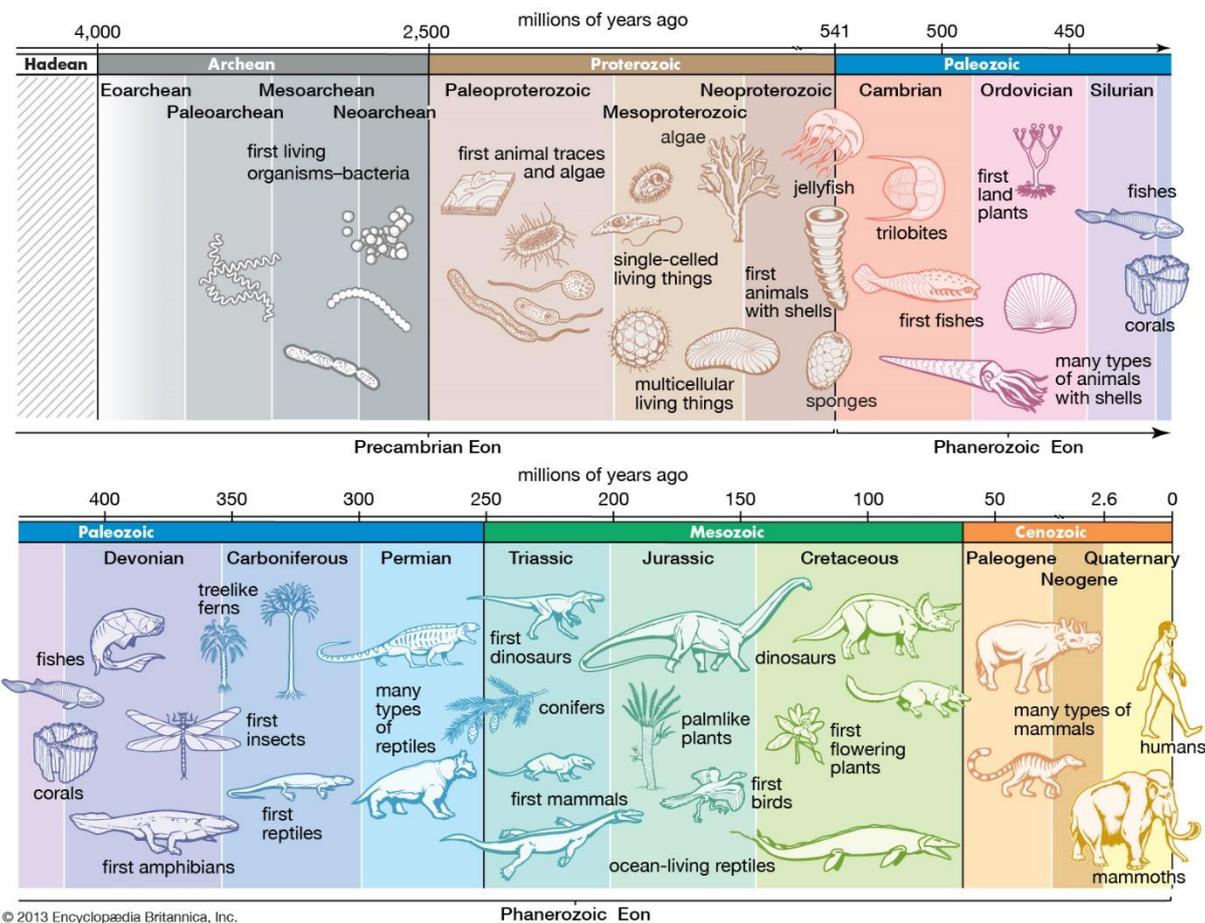
<https://www.youtube.com/watch?v=Fy5eYUaqCbs>

# Cambrian explosion

## paleontology

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**Cambrian explosion** is the unparalleled emergence of organisms between 541 million and approximately 530 million years ago at the beginning of the Cambrian Period. The event was characterized by the appearance of many of the major phyla (between 20 and 35) that make up modern animal life. Many other phyla also evolved during this time, the great majority of which became extinct during the following 50 to 100 million years. Ironically, many of the most successful modern phyla (including the chordates, which encompass all vertebrates) are rare elements in Cambrian assemblages; phyla that include the arthropods and sponges contained the most numerically dominant taxa (taxonomic groups) during the Cambrian, and those were the taxa that became extinct.



The beginning of the Cambrian Period is marked by the evolution of hard body parts such as calcium carbonate shells. These body parts fossilize more easily than soft tissues, and thus the fossil record becomes much more complete after their appearance. Many lineages of animals independently evolved hard parts at about the same time. The reasons for this are still debated, but a leading theory is that the amount of oxygen in the atmosphere had finally reached levels that allowed large, complex animals to exist. Oxygen levels may also have facilitated the metabolic processes that produce collagen, a protein building block that is the basis for hard structures in the body.