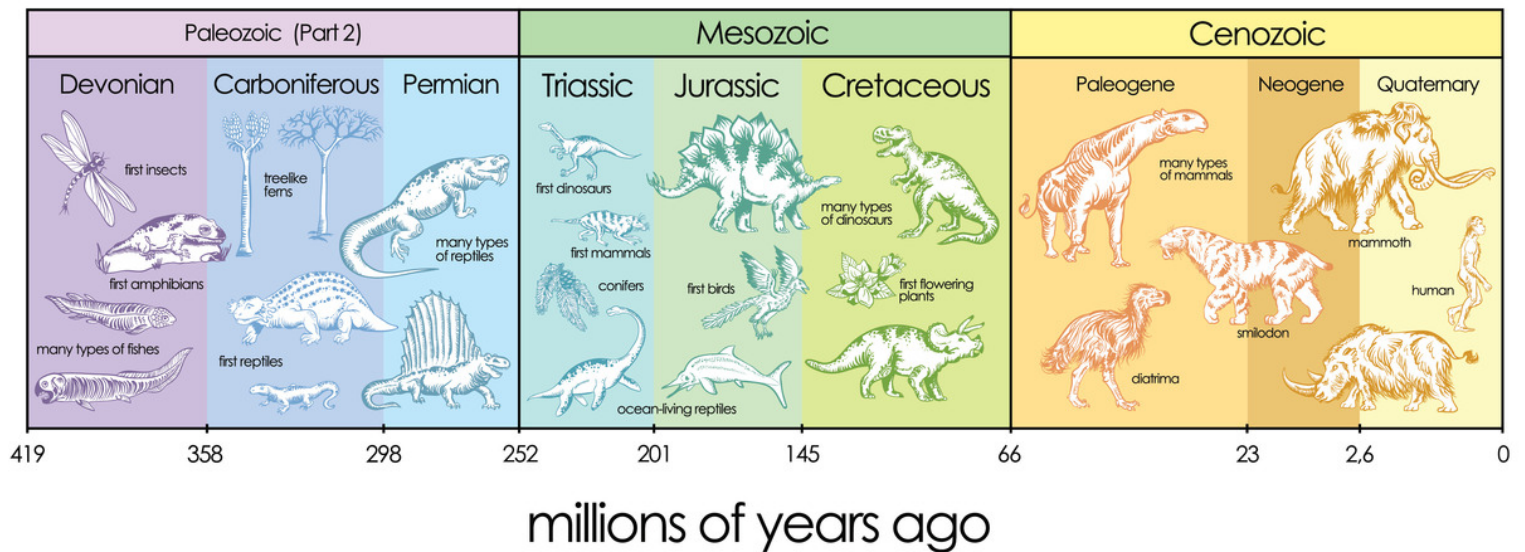
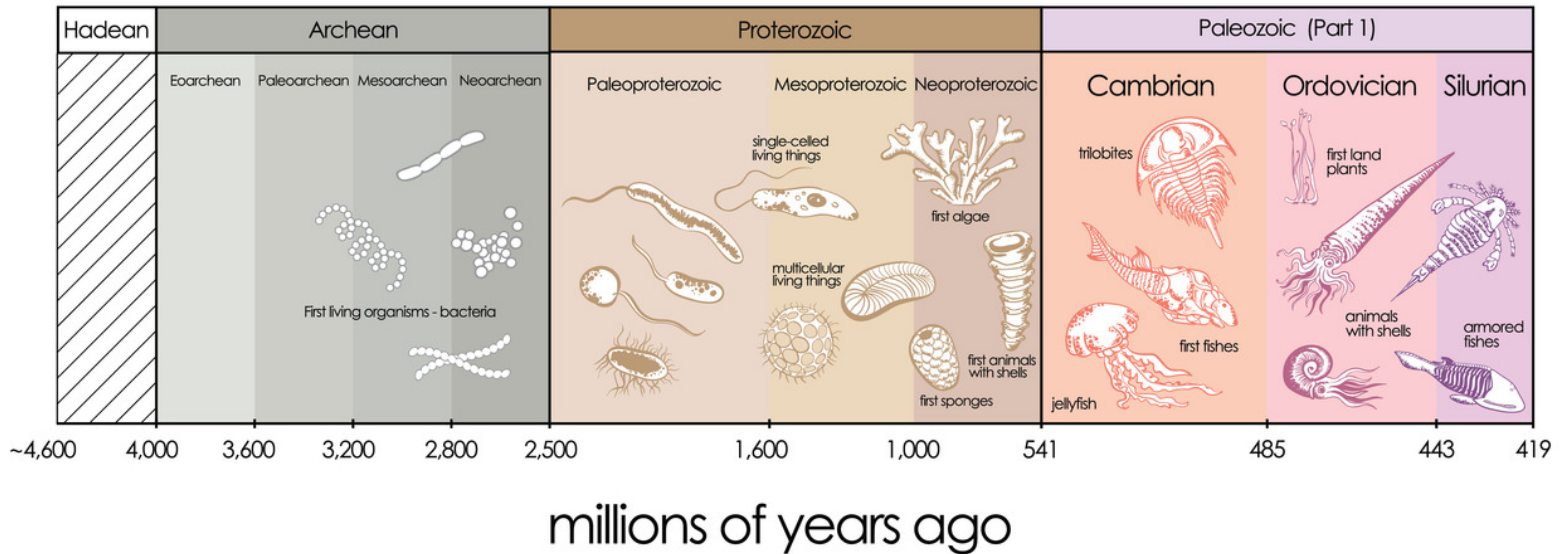


Geologic Timeline



Understanding VR Headsets

VR headsets are special goggles that people wear to make them feel like they are somewhere else. These headsets show 3D pictures that are so realistic that it feels like the person wearing the goggles is in the picture.

VR headsets are used for a lot of different purposes:



Education

To help students see different time periods in history that they are learning about.



Military Training

To prepare people to fight in war by showing them what it might be like.



Virtual Field Trips

To allow people to learn about different historic sites without visiting them in person.



Medical Training

To let doctors to see surgeries and medical procedures before they perform them.



Cell Biology

To help scientists view tiny cells on a much bigger scale.

Steps to Create a VR Headset

You will create a VR headset that can be used by students in school. The goal of the headset is to show images from different time periods so students will feel like they are in that period of time! Follow the steps below to create the prototype of your VR Headset.

Step 1: Choosing A Geologic Time

- Look through the handout that your teacher will give you about different geologic times. Decide what time periods you will use as inspiration for your images. You will need to select a minimum of 3 time periods.
- Use the spaces below to make notes about the time periods you choose. You can focus on the plant life, animal life, climate, or all three!

Time Period 1:

Notes:

Lesson: Understanding How the Earth Changes

Time Period 2:

Notes:

Time Period 3:

Notes:

Lesson: Understanding How the Earth Changes

Step 2: Creating Images

- Draw at least 3 images that the user will see when they click through the buttons on the VR headset. Each image will be from a different time period.
- Then, write a few sentences about each image. This description will be narrated out loud to the users as they see the image.

Time Period 1:

Draw the image people will see while using your VR headset in this box:



Explain your image in a few sentences below:

Lesson: Understanding How the Earth Changes

Time Period 2:

Draw the image people will see while using your VR headset in this box:



Explain your image in a few sentences below:

Lesson: Understanding How the Earth Changes

Time Period 3:

Draw the image people will see while using your VR headset in this box:



Explain your image in a few sentences below:

Lesson: Understanding How the Earth Changes

Step 3: Building a Prototype of the Headset

Build a prototype to show what the VR headset will look like.

Requirements:

- Has a strap that will hold the headset on someone's head, like goggles.
- Has 3 buttons on the side that someone can click to change images.
- Is smaller than the size of a shoebox.
- Has a logo on the side that has the name of the VR headset (which you will come up with).



Geologic History

Use this list along with the geologic timeline to choose 3 time periods to include in your VR headset. Then use https://www.fossils-facts-and-finds.com/geologic_time_line.html to do research about what should be included in your VR experience.

- Quaternary Period
 - 1.8 Million Years Ago (MYA) - Present Day
 - Human Evolution
- Tertiary Period
 - 1.8 MYA - 65 MYA
 - Mammals diversify
- Cretaceous Period
 - 65 MYA - 145 MYA
 - Extinction of dinosaurs, First primates, First flowering plants
- Jurassic Period
 - 145 MYA - 199 MYA
 - First birds, Dinosaurs diversify
- Triassic Period
 - 199 MYA - 251 MYA
 - First mammals, First dinosaurs
- Permian Period
 - 251 MYA - 299 MYA
 - Major extinction, Reptiles diversify
- Carboniferous Period
 - 299 MYA - 359 MYA
 - First reptiles, Trees, seed ferns
- Devonian Period
 - 359 MYA - 416 MYA
 - First amphibians, Fish diversity
- Silurian Period
 - 416 MYA - 444 MYA
 - First vascular plants
- Ordovician Period
 - 444 MYA - 488MYA
 - Major diversification of animal life
- Cambrian Period
 - 488 MYA - 542 MYA
 - First fish, First chordates (animal with backbone)