

Origins of Life
Lesson 3 Activity 3
Group 3

Learning Goals

- Discuss few of the most important events in the origin and early history of living things on Earth
- Order the sequence of the major events of the origin of life
- Realize that the universe is constantly recycling itself
- Discuss if humans as the only (?) component of the universe that can understand itself
- Grasp the incredibly antiquity of the universe

Prior Knowledge

- Understanding of the rock and fossil record as it stands today
- Definition of an index fossil
- The Law of Superposition
- General knowledge of history of life on earth
- How science determines absolute age

Misconceptions

- Life occurs earlier in the history of the earth than it really does
- Age of the earth does not coincide with the birth of the universe
- Misconception of the order life occurred
- Students believe that cavemen and dinosaurs co-existed

Previous Activity

- Rock and Fossil Record
- Constructed Cladogram ordering the rock and fossil record

Atlas Insights

- By looking through the Atlas, we noted that all of the standards are encompassed in a understanding of the timeline universe – it's all related

Highlight the Activities

- Teacher created a 15 meter rope with each meter representing 1 billion years
- The teacher added Representative Event Cards previous to the lesson – Examples of these are the Big Bang, Pangea, and Animals on Land
- Students then added the Origin of Life cards to the timeline – Examples of these are Oxygen Making Bacteria, Sexual Reproduction, and DNA discovered
- This activity should help give the students some sense of scale of when these events occurred and a relative chronology
- Extension: The teacher walks students through converting the 13.7 billion year timeline into a calendar year with the Big Bang occurring an instant after midnight on January 1st
- The students then add the Origin of Life events to the calendar year timeline

Teacher and Learner View Points

- Kinesthetic learning to engage the students
- Helps dispel misconceptions
- Helps them grasp how little time man has been on the earth
- May take longer to accomplish
- Instructions are not clear
- The teachers became frustrated attempting to do the activity
- Has major conceptual impact
- Fun and active way to understand the timeline
- Some of the calculations would be difficult for varying levels of students