## **Geological Timeline**

## Event

| Event  | Years Before Present             |
|--|----------------------------------|
| Beginning of the Earth   | 4.5 billion years before present |
| Unicellular life   | 3.4 billion years before present |
| Multicellular life   | 700 million years before present |
| Animals with backbones first appear                                  | 500 million years before present |
| Oldest rocks in Yosemite   | 500 million years before present |
| Fish are major life form   | 400 million years before present |
| Age of Dinosaurs begins  | 245 million years before present |
| Breakup of Pangaea, continents begin to move                         | 200 million years before present |
| Subduction begins off coast of what is now California. Ancient       | 200 million years before present |
| Sierra Nevada range starts to form.                                  |                                  |
| Formation of the granite rock mass (batholith) begins. The           | 195 million years before present |
| Batholith would eventually become the Sierra Nevada range            |                                  |
| First Birds appear on Earth  | 175 million years before present |
| Flowering Plants first appear  | 150 million years before present |
| Age of Mammals begins/Dinosaurs die out (become extinct)             | 65 million years before present  |
| Ancient volcanic Sierra Nevada range is eroded down to rolling hills | 65 million years before present  |
| in Yosemite, exposing the granite batholith                          |                                  |
| Movement at the plate boundaries off California changes              | 60 million years before present  |
| from subduction to a strike-slip movement                            |                                  |
| Uplift and tilting of the Sierra Nevada range begins                 | 25 million years before present  |
| Horses, apes, dogs, and cats appear                                  | 10 million years before present  |
| Hominids (human ancestors)   | 3.5 million years before present |
| Significant uplift of Sierra Nevada. Rivers begin                    | 5 million years before present   |
| to cut a V-shaped Canyon in Yosemite                                 |                                  |
| Cooling throughout the Northern Hemisphere resulting                 | 2.5 million years before present |
| in the great ice age   |                                  |
| V-shaped canyon widened to a U-shaped Yosemite valley                | 1.2 million years before present |
| by glaciers  |                                  |
| Humans appear on earth   | 100,000 years before present     |
| End of most recent ice age; Last glaciers retreat from Yosemite      | 10,000 years before present      |
| leaving behind Lake Yosemite   |                                  |
| Eastern side of the Sierra Nevada continues                          | Present                          |
| to uplift causing occasional earthquakes                             |                                  |
|  |                                  |