TIME FORMATS

UNIT 1: INTRODUCTION TO OCEANS AND CLIMATE

OCTOBER 17TH, 2019

WHAT ARE WAYS IN WHICH WE MEASURE TIME?

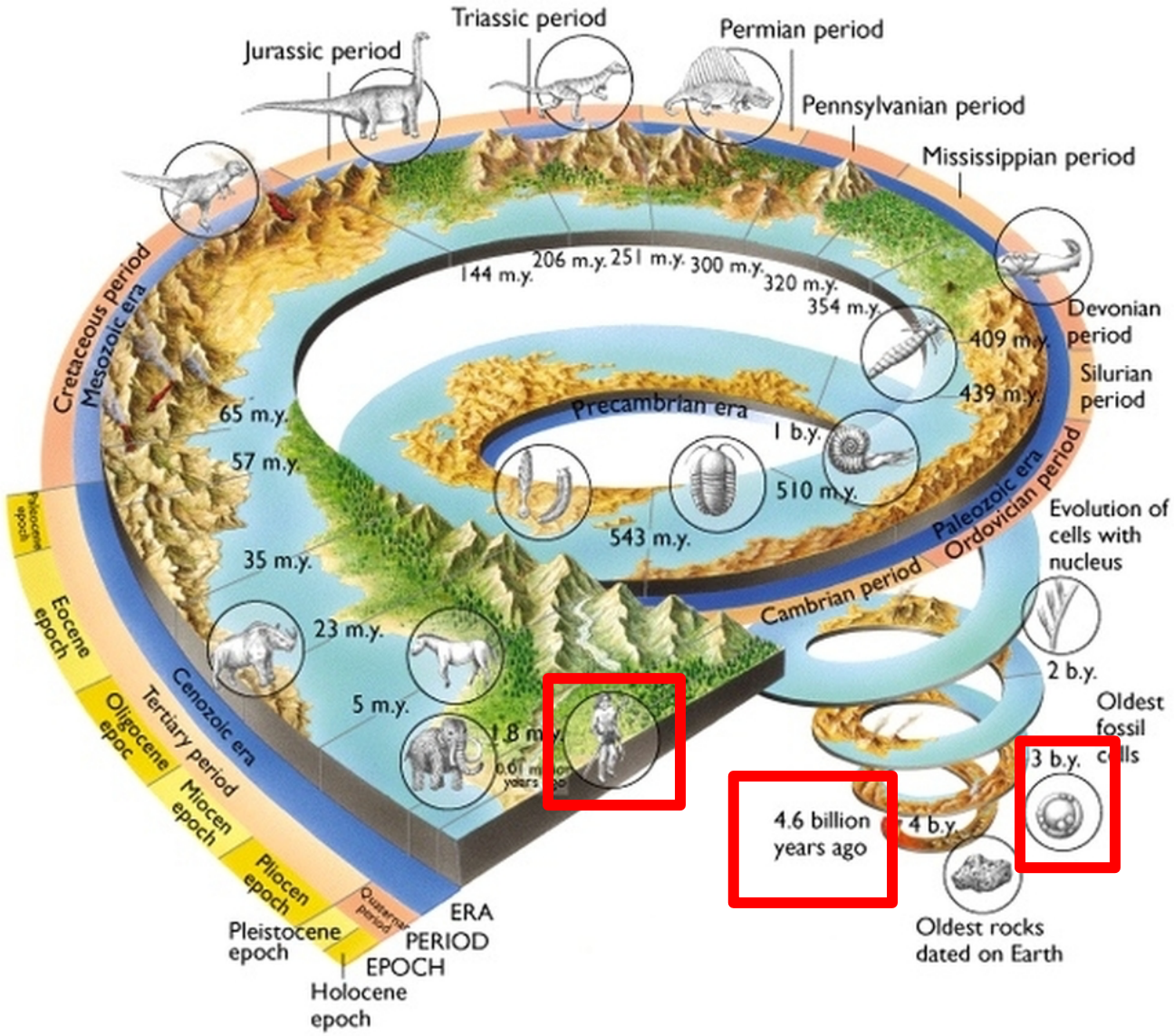
GREGORIAN CALENDAR

- The calendar we are familiar with is based on the Earth's seasons
- It was initially created by the Romans so some of our months are named after famous figures from the Period
  - July is for Julius Caesar
- It's not the most accurate calendar.
  - Here's why: https://youtu.be/YTOr8_ILqGw

GEOLOGIC TIME SCALE

- The geologic time scale is most often used by Earth scientists to describe Earth's history.
- It tracks back number of years from the present.
  - Jurassic period was 200 millions years ago or 200 Ma

- On your geologic time scale,
  - When was the Earth created?
  - When did life first appear on Earth?
  - When did humans come into the picture?


Jurassic period
Triassic period
Permian period
Pennsylvanian period
Mississippian period
Devonian period
Silurian period
Ordovician period
Cambrian period
Paleozoic era
Precambrian era
Mesozoic era
Cretaceous period
Cenozoic era
Tertiary period
Eocene epoch
Oligocene epoch
Miocen epoch
Pliocen epoch
Pleistocene epoch
Holocene epoch
ERA
PERIOD
EPOCH
144 m.y.
206 m.y.
251 m.y.
300 m.y.
320 m.y.
354 m.y.
409 m.y.
439 m.y.
510 m.y.
543 m.y.
1 b.y.
2 b.y.
3 b.y.
4 b.y.
65 m.y.
57 m.y.
35 m.y.
23 m.y.
5 m.y.
1.8 m.y.
Evolution of cells with nucleus
Oldest fossil cells
4.6 billion years ago
Oldest rocks dated on Earth

DATETIME MODULE

- Since we we'll be looking at changes in climate 200 - 400 years ago which is well within human time scales, we'll talking about time in the familiar Gregorian format.
- We'll be using two time formats from the datetime module:
  - The datetime class
    - datetime.datetime(**year, month, day, hour = 0, minute = 0, second = 0, microsecond = 0**)
  - The timedelta class
    - datetime.timedelta(**days=0, seconds=0, microseconds=0, milliseconds=0, minutes=0, hours=0, weeks=0**)