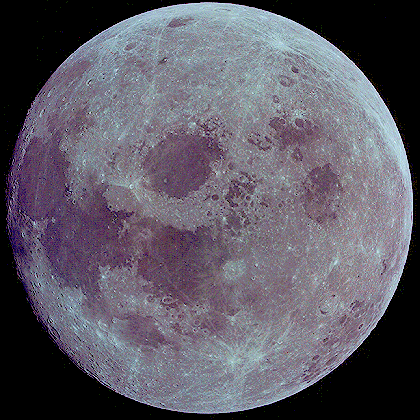
4600 MYA   
Earth is formed

#1



4530 MYA

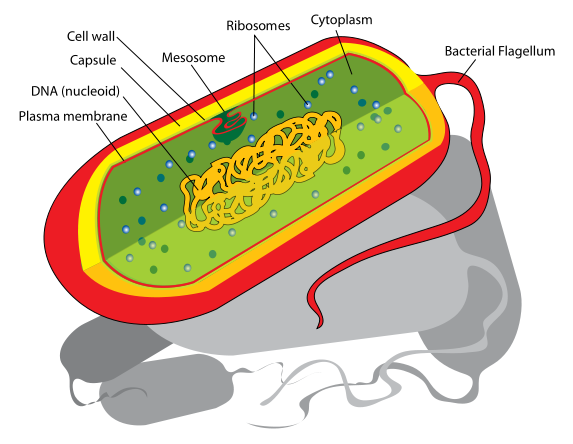
The Moon is formed



3800 MYA  
Earth’s crust solidifies and oceans formed from condensation of atmospheric water

#2

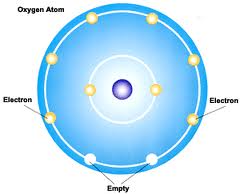


3500 – 2800 MYA  
First Prokaryotic organisms

#3

2400 MYA

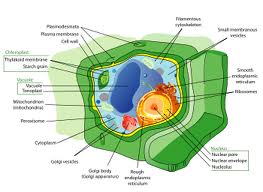
Oxygen levels in the atmosphere rise



1500 MYA

#4

First Eukaryotic organisms

[](http://www.google.com/imgres?q=eukaryote&hl=en&safe=active&gbv=2&biw=1366&bih=557&tbm=isch&tbnid=bL1Sn3fCPvZ2FM:&imgrefurl=http://en.wikipedia.org/wiki/Eukaryote&docid=wAst4OkvmB-d2M&imgurl=http://upload.wikimedia.org/wikipedia/commons/thumb/a/ae/Plant_cell_structure_svg.svg/350px-Plant_cell_structure_svg.svg.png&w=350&h=256&ei=ChQDT6WBE6LE2wXw4IGxAg&zoom=1)

1500 – 600 MYA

Rise of Multicellular organisms

[](http://www.google.com/imgres?q=multicellular+organisms&hl=en&safe=active&gbv=2&biw=1366&bih=557&tbm=isch&tbnid=1jevIlokBZ4nrM:&imgrefurl=http://www.vectorsite.net/taevo_11.html&docid=3ehrGf4M9k2_sM&imgurl=http://www.vectorsite.net/taevo_11_01.jpg&w=478&h=446&ei=EhUDT9W7GObK2AWxyYD0DA&zoom=1)

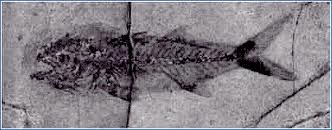
580 – 545 MYA  
First Fossils

#5



500 – 450 MYA

First Vertebrates – Fish

[](http://www.google.com/imgres?q=first+fish+on+earth&hl=en&safe=active&gbv=2&biw=1366&bih=557&tbm=isch&tbnid=hFN_KlSMssEcNM:&imgrefurl=http://library.thinkquest.org/C0124402/data/html/1/1fish_history.htm&docid=cXG8qNdl0DPLjM&imgurl=http://library.thinkquest.org/C0124402/data/images/1/1oldfish.gif&w=416&h=163&ei=LxYDT_PFE-eQ2AX_wYSGAg&zoom=1)

430 MYA  
Waxy coated Algae begin to live on land

#6

[](http://www.google.com/imgres?q=algae&hl=en&safe=active&gbv=2&biw=1366&bih=557&tbm=isch&tbnid=Vz1bjin5vkuaAM:&imgrefurl=http://inhabitat.com/green-algae-could-help-clean-up-radioactive-nuclear-waste/&docid=JTsbRHuIuYT9cM&imgurl=http://inhabitat.com/wp-content/blogs.dir/1/files/2011/04/algae-ed01.jpg&w=537&h=430&ei=YBYDT8LDIcfi2AXE9tiiAg&zoom=1)

420 MYA

First Millipedes live on land



375 MYA

#7

Appearance of primitive sharks



350-300 MYA

Rise of Amphibians

[](http://www.google.com/imgres?q=first+amphibians+on+earth&hl=en&safe=active&gbv=2&biw=1366&bih=557&tbm=isch&tbnid=ia00czp-9FRy9M:&imgrefurl=http://livingandhistory.blogspot.com/2011_03_01_archive.html&docid=-qlcs7U9tjakEM&imgurl=http://4.bp.blogspot.com/-UPmc67d0FVI/TXzGfmV71cI/AAAAAAAABVM/1TLKJ8f2D94/s1600/Ichthyostega.jpg&w=800&h=305&ei=7RYDT-i7EsWi2gWqwpCLAg&zoom=1)

350 MYA

#8

Primitive Insects and Primitive Ferns (first plants with roots)



300 – 200 MYA

#9

Rise of Reptiles

[](http://www.google.com/imgres?q=first+reptiles+on+earth&hl=en&safe=active&gbv=2&biw=1366&bih=557&tbm=isch&tbnid=yVbyRbU_NvC53M:&imgrefurl=http://summeringaztelueta.blogspot.com/&docid=YAK1oh54Fw3d1M&imgurl=http://3.bp.blogspot.com/_DDjjehU1zqE/TD6-VBOaFGI/AAAAAAAAAEE/rGipcEqzkmk/s1600/dino.bmp&w=732&h=505&ei=zhcDT8XjE8W62gXcldyKAg&zoom=1)

300 MYA

Winged Insects have evolved

[](http://www.google.com/imgres?q=first+winged+insects&hl=en&safe=active&gbv=2&biw=1366&bih=557&tbm=isch&tbnid=oQpPISeBUe-ZRM:&imgrefurl=http://www.aerospaceweb.org/question/nature/q0201.shtml&docid=4nc56p4ftTLxsM&imgurl=http://www.aerospaceweb.org/question/nature/evolution/protolindenia.jpg&w=550&h=362&ei=MRgDT6zUO4ec2AXmi6TBBw&zoom=1)

200 MYA  
Pangea starts to break apart and the appearance of mammals

#10



65 MYA

#11

Extinction of Dinosaurs and the beginning of the reign of mammals



20-12 MYA

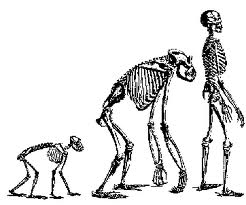
#12

Chimpanzee and hominid lines evolve



4 MYA

Development of hominid bipedalism

[](http://www.google.com/imgres?q=hominid+bipedalism&hl=en&safe=active&gbv=2&biw=1366&bih=557&tbm=isch&tbnid=7XHxQ3oNrzzIAM:&imgrefurl=http://www.bfro.net/ref/theories/meld/jeffrsch.htm&docid=Xhw5-q5Ia3mj1M&imgurl=http://www.bfro.net/ref/theories/meld/evolve1.gif&w=362&h=302&ei=FBkDT-vALKPi2gXot4G5Dw&zoom=1)

4 – 1 MYA

#13

*Australopithecus* exist

[](http://www.google.com/imgres?q=australopithecus&hl=en&safe=active&gbv=2&biw=1366&bih=557&tbm=isch&tbnid=qTrb8dKL9XZUNM:&imgrefurl=http://anthropology.net/2006/02/18/drawing-a-digital-australopithecine/australopithecus-afarensis/&docid=kBNuY0BKT5vwoM&imgurl=http://anthropologynet.files.wordpress.com/2007/06/australopithecus_final_large.jpg?w%3D400&w=400&h=424&ei=yBkDT8vvLeKW2QX5oO20CA&zoom=1)

3.5 MYA

[](http://www.google.com/imgres?q=australopithecus+lucy&hl=en&safe=active&gbv=2&biw=1366&bih=557&tbm=isch&tbnid=dBYF3jyjOJt08M:&imgrefurl=http://en.wikipedia.org/wiki/Lucy_(Australopithecus)&docid=3phmL8me94WHrM&imgurl=http://upload.wikimedia.org/wikipedia/commons/thumb/0/0e/Lucy_Mexico.jpg/220px-Lucy_Mexico.jpg&w=220&h=385&ei=IRoDT9y1GISC2wXsgqyzAg&zoom=1)The *Australopithecus* Lucy walks the Earth

2 MYA

#14

Widespread use of tools

[](http://www.google.com/imgres?q=australopithecus+lucy&hl=en&safe=active&gbv=2&biw=1366&bih=557&tbm=isch&tbnid=dBYF3jyjOJt08M:&imgrefurl=http://en.wikipedia.org/wiki/Lucy_(Australopithecus)&docid=3phmL8me94WHrM&imgurl=http://upload.wikimedia.org/wikipedia/commons/thumb/0/0e/Lucy_Mexico.jpg/220px-Lucy_Mexico.jpg&w=220&h=385&ei=IRoDT9y1GISC2wXsgqyzAg&zoom=1)

2 – 0.01 MYA

Most recent ice age

1.6 – 0.2 MYA

#15

*Homo erectus* exists

[](http://www.google.com/imgres?q=homo+erectus&hl=en&safe=active&gbv=2&biw=1366&bih=557&tbm=isch&tbnid=Bjsy5peDTFruBM:&imgrefurl=http://www.boneclones.com/BH-038.htm&docid=-h6kgXT_lwu8aM&imgurl=http://www.boneclones.com/images/bh-038-lg.jpg&w=900&h=900&ei=9BoDT-LSC8bE2gWHmpCkAg&zoom=1)

1 – 0.5 MYA

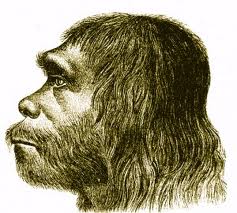
*Homo erectus* tames fire



0.2 - .03 MYA

#16

*Homo sapiens neanderthalensis* exist

[](http://www.google.com/imgres?q=homo+sapiens+neanderthals&hl=en&safe=active&gbv=2&biw=1366&bih=557&tbm=isch&tbnid=n5xTnICoLSRgjM:&imgrefurl=http://www.disinfo.com/2010/10/neanderthals-may-have-been-destroyed-by-climate-not-homo-sapiens/&docid=HchgwoYWkI5qkM&imgurl=http://disinfo.s3.amazonaws.com/wp-content/uploads/2010/09/Neanderthal-300x270.jpg&w=300&h=270&ei=jBsDT_KsDOyA2QX1mZiOAg&zoom=1)

0.05 – 0 MYA

[](http://www.google.com/imgres?q=homo+sapiens+sapiens&hl=en&safe=active&gbv=2&biw=1366&bih=557&tbm=isch&tbnid=Ey4G9yzx5c_d5M:&imgrefurl=http://australianmuseum.com/image/Homo-sapiens-skull-from-Zhoukoudian-angled-view/&docid=NENd6-7xSkzMFM&imgurl=http://australianmuseum.com/Uploads/Images/10643/Human%20Evolution132_big.jpg&w=526&h=352&ei=0hsDT7nKC6m42wXzjqWZAg&zoom=1)*Homo sapiens sapiens* exist

0.012 MYA

*Homo sapiens sapiens* domesticated dogs in Kirkuk, Iraq

#17

[](http://www.google.com/imgres?q=first+domesticated+dog&hl=en&safe=active&gbv=2&biw=1366&bih=557&tbm=isch&tbnid=gWYqojm6YjTxSM:&imgrefurl=http://blog.dog-wa.com/2009/08/04/where-were-dogs-first-domesticated-maybe-not-east-asia-as-previously-thought/&docid=as0MUZO6RfKx1M&imgurl=http://www.ecotibet.org/gallery/photo/poster/21%20Grey%20Wolf.jpg&w=800&h=535&ei=DhwDT5-_EoPy2gXhvuyTAg&zoom=1)

[](http://www.google.com/imgres?q=first+writing+sumeria&hl=en&safe=active&gbv=2&biw=1366&bih=557&tbm=isch&tbnid=Ps-Ru_PZtdPofM:&imgrefurl=http://larryavisbrown.homestead.com/files/OT_history/unit1/Unit1a_geography.htm&docid=5CsAGEexti8UrM&imgurl=http://larryavisbrown.homestead.com/files/OT_history/unit1/Sumerian_cuneiform.jpg&w=594&h=614&ei=PBwDT7TQM-mw2wWj5K2LCA&zoom=1&iact=rc&dur=494&sig=100476357144590367257&page=1&tbnh=112&tbnw=108&start=0&ndsp=24&ved=1t:429,r:2,s:0&tx=54&ty=32)

.006 MYA

Writing is developed in Sumeria

**#1. How many million years ago was the Earth formed? \_\_\_\_\_\_\_\_\_\_\_\_\_**

Identify the four eras in order starting with the most present.

1.

2.

3.

4.

**#2. How did the water for the oceans form?** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Which era and period are we currently in?

Era- Period-

**#3. 3500-2800 MYA the first prokaryotic organisms came into existence, do prokaryotes have a nucleus? Yes No**

Name 4 types of events that could cause many organisms (plants and animals) to go extinct.

a.

b.

c.

d.

**#4. How old could the oldest Eukaryotic multi-celled organism be? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Which era is the longest? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Which era is the shortest?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**#5. How many millions years between the first fossil and the first vertebrate fossil? \_\_\_\_\_\_\_\_\_\_\_\_\_**

In which *eras and periods* did the following first appear on Earth:

1. Dinosaurs –
2. Mammals –
3. Flowering Plants –
4. Birds –

**#6. When did Algae begin to live on land? \_\_\_\_\_\_\_\_\_\_\_\_ Why was it waxy coated?** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Which developed first, plants or animals? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**#7. Which happened first, sharks for amphibians? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Why does that make sense? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**#8. When did rooted plants first existed? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Ferns first appeared in Period: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Ferns first appeared in Epoch: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**#9. Could reptiles and insects have existed together at the same time? Yes No**

Could reptiles and dinosaurs have existed together at the same time? Yes No

**#10. What happened 200 MYA? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Which epoch: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**#11. How long ago did dinosaurs go extinct? \_\_\_\_\_\_\_\_\_\_\_\_\_**

Which Epoch did mammals begin existence? \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**#12. How long ago did the first bipedal hominid develop? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Using the picture on the gallery walk, what does bipedal mean? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**#13. When did Australapithecus Lucy walk on Earth? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Do you think this is the same as a present day human? Yes No

**#14. How long ago did the last ice age occur? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Did man always use tools? Yes No**

**#15. How long ago did early man start to use fire? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

What epoch was this? \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**#16. How long ago did the Homo sapien sapiens first evolve? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

What epoch was this? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**#17. How long ago was writing first developed? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Where do we find evidence of this? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

