

Materials

- One roll of toilet paper, 231 sheets or more.
- Felt-tip marker(s) or fluid writing utensil(s), preferably several colors.
- Clear tape for repairs.

Procedures

- 1.Starting at one end of a long hallway, unroll the toilet paper until you reach 230 squares.
- 2.Label the events on the appropriate square of toilet paper with the event and the real date in mya.
- 3.Take a look at all of the events. How long have humans been on Earth?
- 4.What three things about the cosmic calendar surprise you? Why?

Origin of earth

4,600,000,000

Years Ago

Or 4,600 mya

Square 1

**Oldest known Earth
rocks**

3,800,000,000

Years Ago

Perforation 40

**Early bacteria & algae
life**

3,400,000,000

Years Ago

Perforation 60

**Oxygen Environment
Established**

2,700,000,000

Years Ago

Perforation 95

**Beginning of Proterozoic Eon
(Early cellular life)**

2,500,000,000

Years Ago

Perforation 105

**Formation of Super
Continent**

1,400,000,000

Years Ago

Perforation 160

**First known
animals**

1,200,000,000

Years Ago

Perforation 170

**Continent
Breakup**

800,000,000

Years Ago

Perforation 190

**Beginning of 'Phanerozoic'
Eon**

First visible life

570,000,000 years ago

Perforation 201

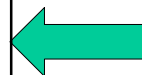
Early Fish

490,000,000 years ago




Perforation 204.5

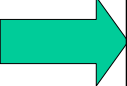
**Early Land
Plants**




430,000,000 years ago

Perforation 208.5

**Early Trees
(Fossil Fuels)** 
363,000,000 years ago
Perforation 211.5

First reptiles
325,000,000
years ago 
Perforation 213.75


**Opening of Atlantic
Ocean**
220,000,000
years ago 
Perforation 219

**Jurassic Period begins
(Dinosaurs)** 
208,000,000
years ago
Perforation 219.6


**Early Birds and
Mammals** 
180,000,000
years ago
Perforation 221

Dinosaurs Extinct 
65,000,000
years ago
Perforation 226.75

Early Primates
60,000,000
years ago
Perforation 227



**Australopithecus
(earliest known
Humanoid)**




4,000,000
years ago
Perforation 229.85

**Oldest Stone
Tools**



1,600,000
years ago
Perforation 229.92

**First Use of
Fire**



500,000
years ago
Perforation 229.97

**'Modern' and
Neanderthal Man**

100,000
years ago
Perforation 229.99

