

Instructions for Use and Printing

“Date & Time” and “Event & YBP” cards

There are 32 events in this activity. Each has two cards, one with just a date and time, the other with a matching date/time and its corresponding event and how many years before present (YBP) the event occurred. You do not have to use all of the cards. Students can be given multiple cards, or a pair of students can share one card.

The first four pages are the “Date & Time” cards, which should be printed one-sided (print pages 2-5). Mix these cards up and distribute them randomly to your students. The calendar will start and end with January 1, 12:00 am. These cards are smaller and oriented horizontally compared with the “Event & YBP” cards.

The next 16 pages are the “Event & YBP” cards (years before present). These should be printed double-sided; select “flip on long edge” in your printer dialogue box, and print pages 6-21. On one side are the calendar date and time, and correspond with the “Date & Time” cards. Place these cards on a table or the floor with the date and time facing up.

Cut out the cards after printing. Laminate the cards if you have the time, materials, and desire to use them repeatedly.

Notes about the cards and activity:

The final event, “Devils Tower National Monument declared,” is the end of our calendar for this activity. If “present day” was the end of our calendar, the Tower would have been dedicated a second or less before the January 1, 12:00 am date/time used here.

If you would like to remove certain cards to match your class size or for other reasons, it is recommended you keep the cards which pertain to Devils Tower (starred with *asterisks* on the Event & YBP cards). Removing cards which show specific life forms developing is recommended as a first “cut.”

To reduce materials and save time, consider just printing the “Event & YBP” cards. Lay them out chronologically for your students, and assign one student or pair to each card.

January 1
12:00 am

February 25
1:02 pm

March 5
11:28 am

April 18
2:52 am

September 3
11:28 pm

November 21
10:18 pm

November 27
9:07 pm

December 1
10:49 am

December 2
5:52 am

December 2
3:23 pm

December 5
7:33 pm

December 11
8:52 am

December 12
1:26 pm

December 12
10:57 pm

December 13
9:48 pm

December 14
11:08 am

December 19
4:49 pm

December 20
2:20 am

December 20
6:09 am

December 22
9:00 pm

December 26
10:41 am

December 26
8:13 pm

December 26
10:07 pm

December 27
3:15 pm

December 28
12:47 am

December 28
9:43 pm

December 31
4:04 pm

December 31
5:20 pm

December 31
11:02 pm

December 31
11:48 pm

December 31
11:59 pm

January 1
12:00 am

February 25

1:02 9m

April 18

2:52 am

January 1

12:00 am

March 5

11:28 am

3.25 billion YBP
Fossil evidence
of bacteria

3.9 billion YBP
Origin of life
(first cells)

3.8 billion YBP
Oldest rocks

4.6 billion YBP
Earth formed

November 21

10:18 pm

December 1

10:49 am

September 3

11:28 pm

November 27

9:07 pm

385 million YBP

First insects

505 million YBP

First fish

430 million YBP

**First land
plants**

1.5 billion YBP

**First multi-celled
organisms**

December 2

3:23 pm

December 11

8:52 am

December 2

5:52 am

December 5

7:33 pm

260 million YBP

*Spearfish
Formation
deposited*

370 million YBP

First sharks

330 million YBP

First reptiles

375 million YBP

First land
animals
(amphibians)

**December 12
10:57 9m**

**December 14
11:08 am**

**December 12
1:26 pm**

**December 13
9:48 pm**

221 million YBP

First mammals

240 million YBP

First crocodiles

228 million YBP

First dinosaurs

245 million YBP

Paleozoic

extinction

(96% of all life)

December 20

2:20 am

December 22

9:00 pm

December 19

4:49 pm

December 20

6:09 am

115 million YBP
First flowering
plants

150 million YBP
*Sundance
formation
deposited*

148 million YBP
Stegosaurus

155 million YBP
First birds

December 26

8:13 pm

December 27

3:15 pm

December 26

10:41 am

December 26

10:07 pm

55 million YBP
First horses

65 million YBP
Mesozoic
extinction (end
of dinosaurs)

64 million YBP
First ancestors
of dogs and
cats

70 million YBP
Tyrannosaurus
Rex and
Velociraptor

December 28

9:43 pm

December 31

5:20 pm

December 28

12:47 am

December 31

4:04 pm

4 million YBP
First hominids
(human-like
ancestors)

39 million YBP
First monkeys

5 million YBP
*Erosion starts
to expose
Tower*

50 million YBP
Tower forms

December 31

11:48 pm

January 1

12:00 am

December 31

11:02 pm

December 31

11:59 pm

111 YBP

***Devils Tower
designated as
first national
monument**

100,000 YBP

**First modern
human**

235 YBP

**Revolutionary
War**

1 million YBP

**Oldest fossil of
direct human
ancestor**