NASA Space Apps Challenge #2018

Category

Volcanoes, Icebergs, and Asteroids (oh my)

Challenge

Hello, Bennu…!

Team

ASU Space Heroes

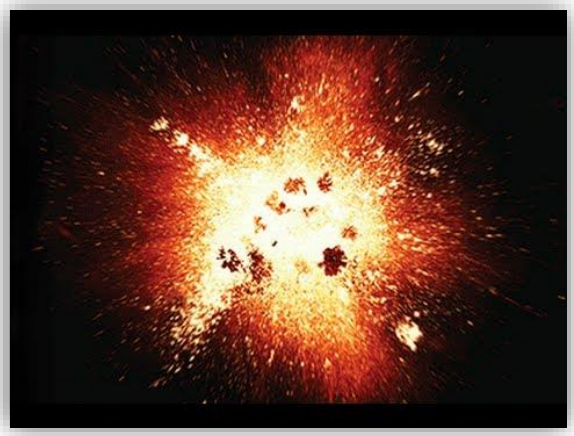
- Where did we come from…?
- What is our destiny…?

The Big Bang Theory is an effort to explain what were happened at the Beginning of our Universe.

- The Beginning of the Universe was a small mass…?

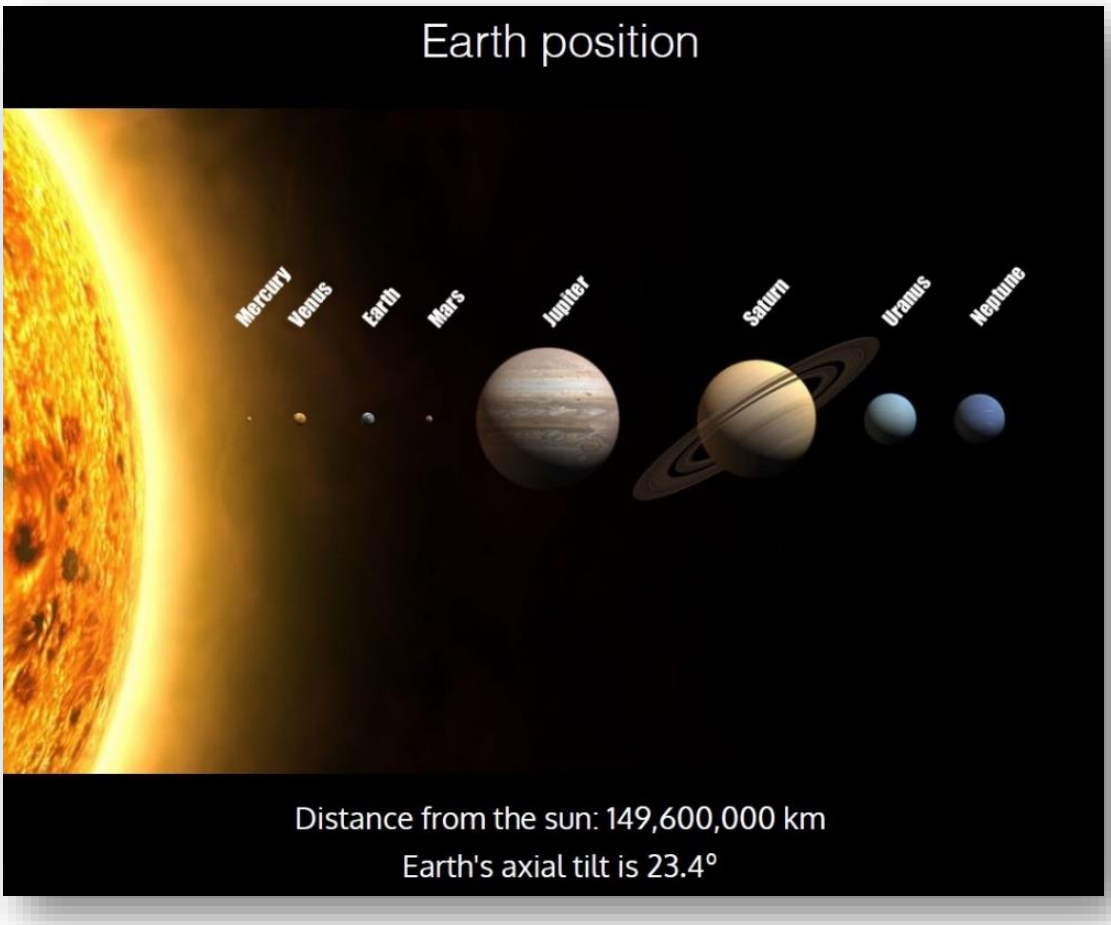
  ➢ The Temperature in this case was very high so that particles could move randomly at relative velocities, pairs and antigens of each type were produced continuously.

  ➢ Also, some even faded through collisions…, within minutes of the Expansion of the Universe, when The Temperature was about One Billion Kelvins and The Density was almost equal to The Air Density,
  Galaxies Appeared…,
  including our galaxy containing The Solar System, The Milky Way Galaxy.



- The Milky Way Galaxy…?

The Milky Way Galaxy contains of our solar system which consists of Our Star Of Sun and orbits around it a group of planets (Mercury - Venus - Earth - Mars - Jupiter - Saturn - Uranus – Neptune).

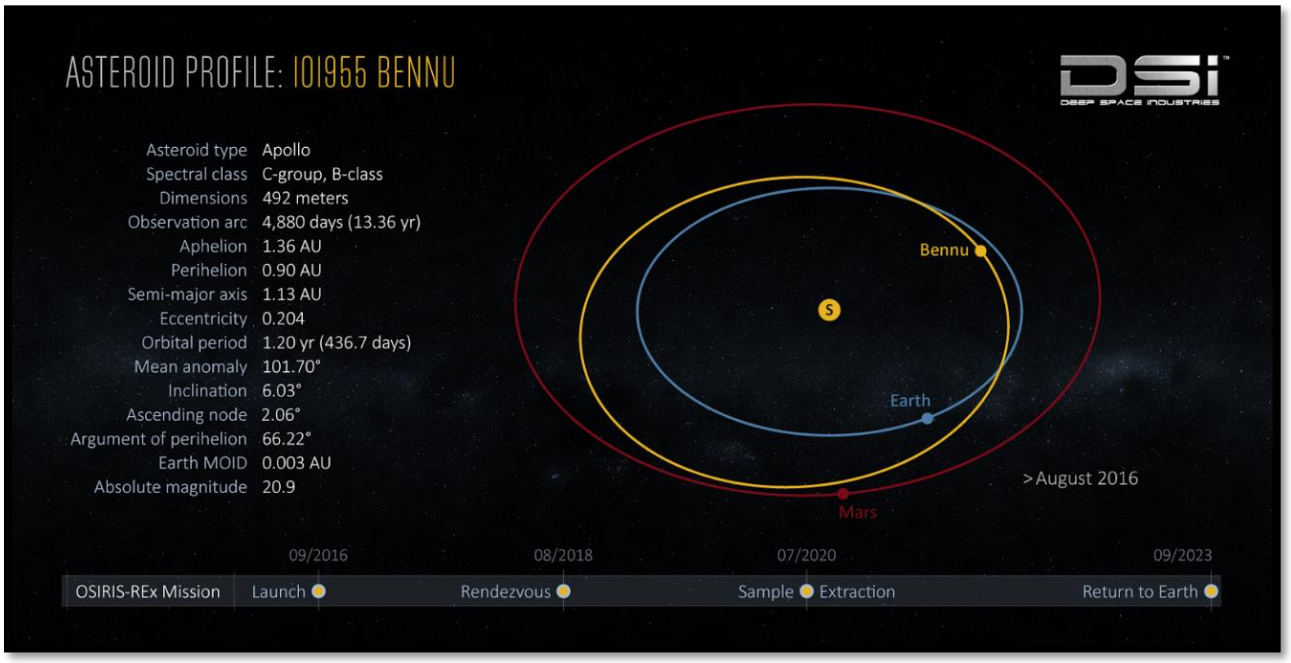


▪ The Asteroid Of Bennu…?

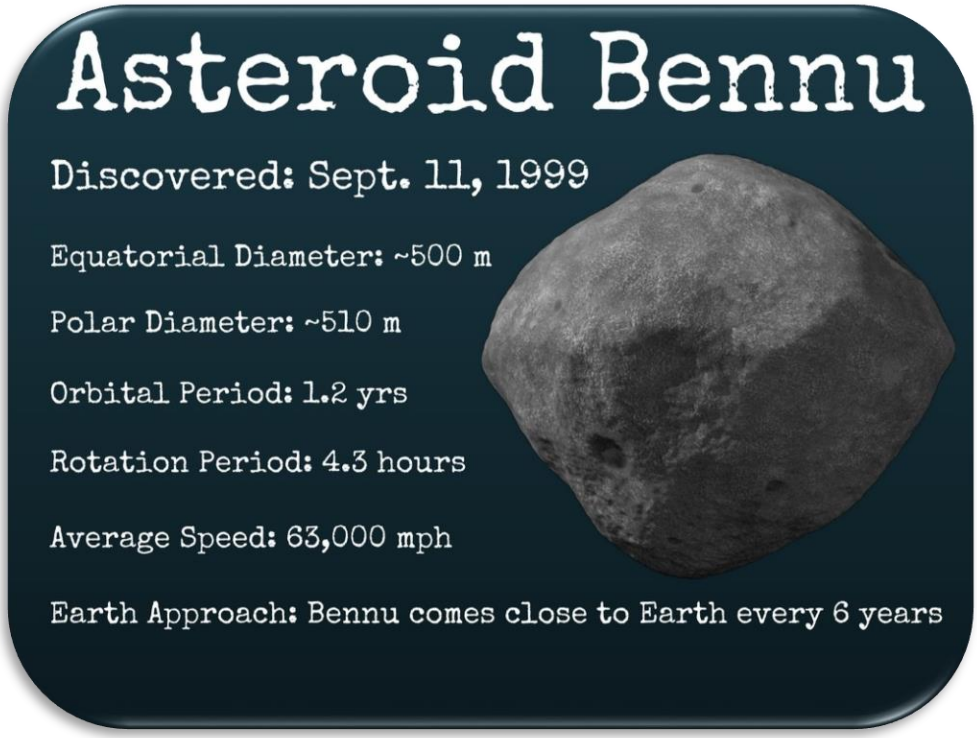
The Asteroid Of Bennu was discovered on September 11, 1999 by Lincoln's Search for near-earth asteroids.

- The Asteroid is the primary target of the Osiers-Rex Mission, which aims to retrieve Asteroid Samples then return to Earth for Studying Them In 2023.

- The Asteroid Of Bennu is one of the most likely asteroids, where it was ranked in The Risk Table in The Top Three Classification according to The Technical Parameter Of The Collision Risk.



On Average, An Asteroid with a Diameter Of 500 Meters is expected to Collide with Earth every 130,000 years.



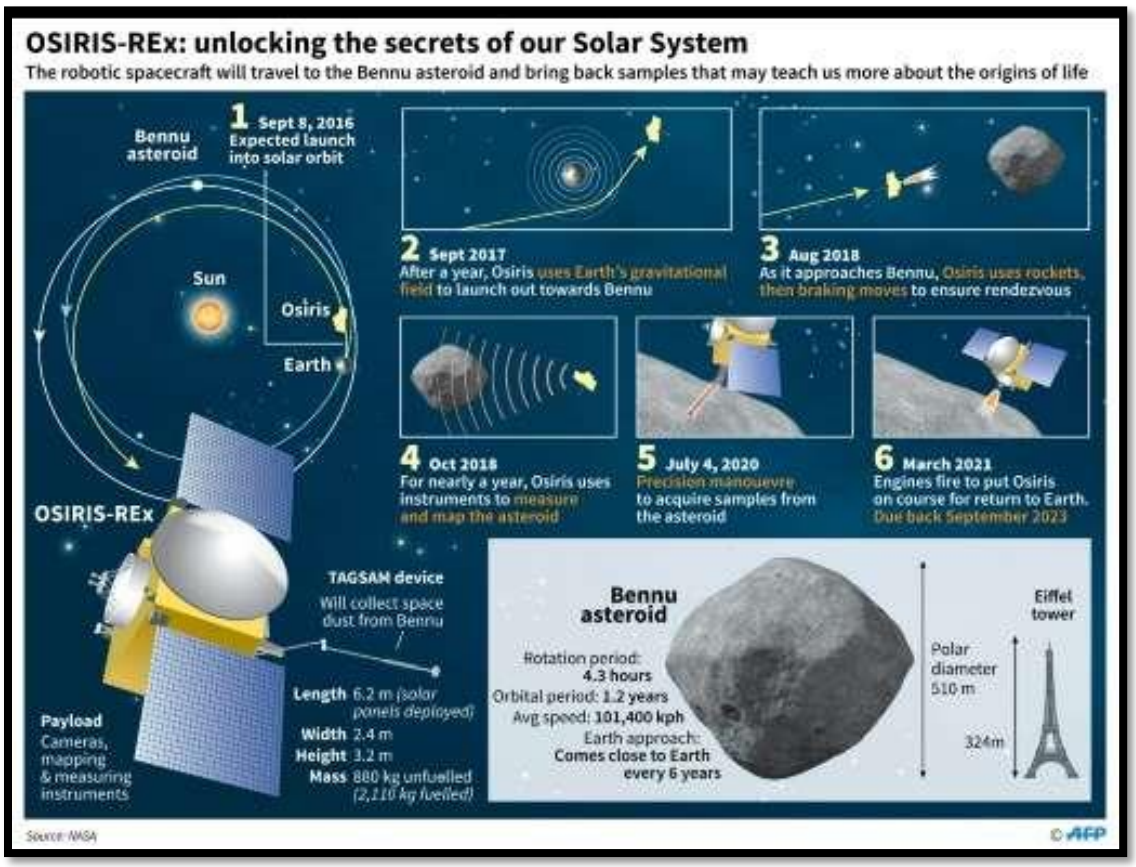
The Dynamic Studies have predicted the probability of The Asteroid Collision with Earth between years of 2169 A.D. and 2199 A.D.,

Also, The Cumulative Probability Of Collision depends on The Physical Properties of the Asteroid Bennu,

But Unfortunately, these properties are not clearly known yet.

▪ Osiers-Rex Mission…?

Osiers-Rex Mission will travel to a Near-Earth Asteroid called Bennu and bring a small samples back to Earth.
The Mission launched on Sept. 8, 2016, from Cape Canaveral Air Force Station.
As Planned, The Spacecraft will reach Bennu in 2018 and return The Samples to Earth in 2023.



- Why are we interested in The Asteroid Bennu…?!

a. It's close to Earth.

b. It's the right size.

c. It's really old.

d. It's well preserved.

e. It might contain clues to the origin of life.

f. It contains valuable materials.

g. It will help us better understand other asteroids.

h. It will help us better understand a quirky solar force.

i. and to keep asteroids at bay.

j. It's a gift that will keep on giving

We Hope That We Already Done It.

Thank You